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The role of colleges for advanced studies in Roma undergraduates' adjustment to college in Hungary from a social network perspective

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ABSTRACT

Adapting to the expectations of educational institutions can be difficult for any students, but it is particularly difficult for disadvantaged, first-generation college students with a minority ethnic background. Our case study, employing a social network perspective, examines the role of small peer-communities in the academic adjustment of underrepresented minority students, namely Roma young people in Hungary. Using a social network approach, the study aims to evaluate what the exact role of 'colleges for advanced studies' communities is in the everyday life of Roma students, characteristically first-generation intellectuals, and how such communities contribute to academic adjustment. Furthermore, this study examines the main dilemmas concerning the operation of such colleges for advanced studies. The results show that institutions with fewer students and those operating in separate buildings (spatial segregation) provide an opportunity for much stronger connections and more interactions for the students. However, the analysis also showed that the predominance of RCASN ties may hinder the formation of host connections, and this way hampers the stronger bonding to the university.

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colleges for advanced studies; Roma; adjustment to college; social network analysis; social capital; cultural mismatch

Introduction

Adapting to the expectations of educational institutions can be difficult for any students, but it is particularly difficult for disadvantaged, first-generation college student of a minority ethnic background (Carter, Locks, and Winkle-Wagner 2013; Nyíró and Durst 2018; Marcu 2019). First-generation students have neither access to information to familiarise themselves with the higher education system nor experience about university life. They grew up in a completely

different milieu from the usual, and consequently, find it difficult to fit in and are often marginalised (Lehmann 2014; Kuh and Love 2000; Naudet, 2018). Cultural mismatch theory describes the social-psychological mechanisms of this in-between situation by highlighting the difference between the institutional culture of the universities (culture of independence) and first-generation students (culture of interdependence) (Stephens et al. 2012; Nguyen and Nguyen 2020).

The successful adaptation of students in higher education is determined by the social status of the family of origin, external resources (e.g. social capital), and institutional opportunities (e.g. scholarships) (Bean 1985; Tinto 1993; Braxton 2000; Pascarella and Terenzini 2005; Weidman 2006). Adjustment to college is a process wherein students are adapting to the academic environment, learning its norms and coping with its demands (van Rooij, Jansen, and van de Grift 2018). In adjusting to the academic environment and attaining the university's institutional culture, students' personal relations play a key role (Pusztai 2019; Mishra 2020). Accordingly, social network analysis can provide a deeper understanding of the process of adjustment to college. The kinds of ties students can rely on, the communities they can relate to, and the extent to which they can embed into the academic community strongly determine their adjustment to college (Thomas 2000; Beattie and Thiele 2016; Lukács J and Dávid 2019; Shu et al. 2020; Mishra 2020).

In the case of underrepresented minority students, multicultural, heterogeneous peer interactions, ties to mentors and professors, and familial connections have equally important roles in a successful adjustment to college (Stanton-Salazar 2010; Strayhorn 2012; Rios-Aguilar and Deil-Amen 2012; Bereményi and Carrasco 2017; Lukács J and Dávid 2019; Shu et al. 2020). Small university communities – for example, student organisations or colleges for advanced studies – can facilitate students' social involvement and provide stability by increasing the opportunities to connect with their ethnic peers and with the faculty members (Coleman 1988; Tinto 1998; Guiffrida 2003; Lukács J and Dávid 2019). Moreover, these small university communities are able to improve the cultural match between underrepresented minority students and the institutional culture of the university (Guiffrida 2003; Museus 2014; Grier-Reed and Wilson 2016; Nguyen and Nguyen 2020). Also, they create an opportunity for students to connect to the university as a specific subculture community (Hurtado and Carter 1997).

Our case study examines the role of these small peer-communities in underrepresented minority students' adjustment to college, namely Roma young people. The Roma population is Europe's largest and most disadvantaged ethnic group. According to a recent European Union report on Roma people, only 2% of Roma people aged between 18 and 24 years are receiving higher education, while this proportion is 34% among the population of similar age of the nine examined countries (FRA 2016). This rate is considered extremely low,

even assuming that latency is high among Roma people with a university degree. Many European, national, and local programmes have been used to support the education and school advancement of Roma children (Brüggemann and Friedman 2017).

The Roma Colleges for Advanced Studies Network (RCASN) was founded in 2011 in Hungary to support Roma students in obtaining an academic degree. Colleges for advanced studies established at Hungarian Universities are all dedicated to supporting talented students in their studies and academic work. Certain colleges are open for all students, while others, like the RCASN, admit only specific groups of people. These colleges for advanced studies offer accommodation in dormitories, and students can participate in several special courses (language, spiritual, etc.). Additionally, students can obtain a scholarship that is indispensable for the majority to pursue their studies (CRCASN 2020; Galántai 2015; Biczó 2021).

Our study aims to evaluate what the exact role of these college for advanced studies communities is in the everyday life of Roma students, characteristically first-generation university students, and how RCASN institutions contribute to the adjustment to college using a social network approach. Furthermore, this study examines the main dilemmas concerning the operation of the colleges for advanced studies.

Educational situation of the Roma population

The lack of educational progress of the Roma population as compared to the majority of society can be detected from early childhood. Although the majority (90%) of Roma children participate in compulsory education, 18% of them attend lower classes than corresponding to their age (FRA 2016). As mentioned in the introduction, the proportion of young (aged between 18–24 years) Roma students attending universities is only 1–2%, which is extremely low (FRA 2016; Bernát 2018). The educational drop out of Roma students is not caused by one factor only. Studies focusing on the connection of the Roma and education emphasise the socialisation discrepancies caused by low socioeconomic status, linguistic and cultural differences as a background of unsuccessful school careers (Van Driel 1999; O’Nions 2010; Kertesi and Kézdi 2011; Brüggemann 2014; Messing 2014; Kyuchukov and New 2016; Lauritzen and Nodeland 2018). Additionally, the issue of otherness shapes the educational context of the Roma students (Kirova and Prochner 2015). Discrimination based on negative stereotypes is also a determining factor related to education and the social status of the Roma (Farkas 2014; Brüggemann and D’Arcy 2017).

Talent management initiations for the Roma

In Hungary, after the regime change of 1989, numerous scholarship programmes, initiated by governments and civil organisations, began to support the talented Roma students in primary and secondary schools and at the university level as well (Van Driel 1999; Arnold et al. 2011; Nyíró and Durst 2018). The main aim of these initiatives is to fill the gap for students from disadvantaged family backgrounds by creating equal opportunities for outstanding pupils. Scholarship programmes generally provide a broad range of services to foster their abilities by offering students financial and emotional support and organising mentoring and tutoring programmes. It's important to note that the programmes usually accept students who are self-declared Roma and who openly acknowledge their origin/ethnicity.

At the higher education level, colleges for advanced studies are the most important arena for fostering talent and supporting Roma students. In Hungary, the system of the college for advanced studies, which became widespread in the second part of the 20th century, was modelled on the universities of Oxford and Paris. These colleges, operating alongside universities, played an important role in the education of the intellectuals in Europe (Garai and Szabó 2015). Traditionally, colleges for advanced studies focus on the training of the upper-class elite students, but there are movements that dedicate themselves to the assistance of students with underprivileged backgrounds. These colleges are particular organisations within the Hungarian higher education system, with specific aims such as building student communities. Their primary objective is to provide scientific training along the students' professional interest. In addition to fostering abilities, they provide special courses, scholarships and accommodation in dormitories as well. (Dunajeva 2015; Biczó 2021)

Roma Colleges for Advanced Studies Network (RCASN) in Hungary

The Roma Colleges for Advanced Studies Network was established in 2017, but it began its work as the Christian Roma Colleges for Advanced Studies Network in 2011 as a joint ecclesiastic and government initiative (CRCASN 2020; Biczó 2021). The Network's main mission is to increase the academic success of Roma students in higher education, reducing their drop out rate and creating an active Roma intellectual stratum, which is capable of promoting better social integration and acceptance of the Roma. Currently, the RCASN has 11 members and more than 300 students. Each of the colleges for advanced studies operates an independent dormitory and have their own instructional programmes, school staff, and institutional- and operational rules. Some colleges for advanced studies operate in a completely separate building from the universities the students attend. However, those who do not have access to such a place, rent rooms within the universities' campus for their programmes.

Students must renew their membership at the beginning of each semester by signing a membership contract. They can only renew it if they have an active higher education student status. It is important to note that these colleges for advanced studies are open to non-Roma students too, who – as provided for in the higher education laws – are in a disadvantaged or cumulative disadvantaged situation and show regard for Roma values.

In order to be able to provide differentiated instruction, an individual plan is developed for each student, compensating for disadvantages and taking abilities into account. Each student is assigned an external- (academic instructor) or internal mentor who delivers coaching of school subjects and individual talent-care and supports the student in implementing his or her individual plan. The curriculum includes three modules, which can complement the traditional work of higher education efficiently and effectively: one is a bicultural identity-builder, one is on public knowledge, and one is a spiritual module established on Christian values. Students with a signed contract and an active membership receive different types of scholarships.

Aims

The objective of our study is to conduct a detailed analysis of the role of the RCASN in Roma students' adjustment to college. The research group of the Institute of Mental Health at Semmelweis University monitored the students of the network between 2012 and 2016. The focus of the study was to analyse the values, social networks, identity and subjective well-being of college for advanced studies students.

The main question of the study is what role RCASN play in Roma students' adjustment to college using social network analysis. Our analysis also deals with the following questions: 1) what differences can be observed between the RCASN communities from a social network perspective; and 2) what resources are provided to Roma students through ties from the college for advanced studies? The discussion also addresses the dilemmas related to the operation of the colleges.

Methods

For the analysis, we surveyed the students' egocentric networks and the networks of college for advanced studies communities. We applied the contact diary¹ method (Dávid et al. 2016). Based on the egocentric network of the RCASN students, we have reconstructed the community network for each college for advanced studies community, i.e. how the interactions between the students belonging to the given college for advanced studies community are formed and how dense these networks are. We analysed the data using IBM

SPSS 21.0 (IBM Corp. Released 2015. Armonk, NY: IBM Corp.) and UCINET (Borgatti, Everett, and Freeman 2002) software.

Materials

We collected data from five colleges for advanced studies. The number of students in these institutions during the years of data collection was 24 persons on average (Std. Dev. 4.186). It is important to emphasise that three of the colleges for advanced studies were operating in a separate building from the other university buildings during the period of the study. In one case, the college for advanced studies had a separate floor in one of the university buildings. Students were dispersed within a university in the fifth institution, and the college for advanced studies had some rooms on the university campus. In addition, institutions also differed significantly in the number of Roma and non-Roma students: the proportion of non-Roma students was 34% on average, with only 17% in one college for advanced studies, but there were some colleges for advanced studies where Roma and non-Roma students represented 50–50% of the college community (Std. Dev. 12.398).

In the period between 2012 and 2016, data were collected from a total of 183 colleges for advanced studies students in five member institutions of the RCASN. Due to our cooperation agreement with the RCASN, we had the opportunity to include every college for advanced studies student in the study. Still, the participation in the research was voluntary: the sample covers 82% of the population.

As mentioned before, these colleges also include non-Roma students. These students consist of 32% of the sample. The main sociodemographic features (gender, age, settlement type) of the Roma and non-Roma students of the network do not differ except that among the Roma students, the first-generation intellectual students are overrepresented compared to the non-Roma students (86 vs 66%, $p = 0.005$, $\Phi = 0.226$) (see [Appendix A](#)). Since the study focuses on first-generation higher education students belonging to an ethnic group, we primarily included the Roma students in the analysis ($N = 124$) and used the non-Roma students as a control group ($N = 59$).

A slight majority of the Roma college students included in the sample were female (53%). Most of them were between 19–24 years of age at the time of the first data collection. During data collection, 40% of the students were first-year students, and 91% were BA/BSc students. As mentioned, 86% of Roma students were first-generation students, meaning that neither of their parents had a university or college degree. More than half of the students' parents (52%) had an educational level of 8 elementary school years or less, 17% had finished secondary school, and only 9% (a total of 16 persons) had a post-secondary degree.

Results

The characteristics of colleges from a social network perspective

By analysing the network of the college community, we measured primarily the density of the network, meaning the determination of the realised proportion of the potentially formed total connections (if everyone talks to everyone). The average density measured in the colleges for advanced studies was 23.52%, meaning that almost one-fourth of the possible total connections had been realised (Std. Dev. 8.137). This high standard deviation value clearly shows that there are significant differences between these colleges in terms of the extent of formed connections. Although we cannot make statements with high statistical power based on the examination of five institutions, according to our observations, there is a relationship between the density of college for advanced studies networks and the setting of the accommodation for students (i.e. if RCASN students share the building with other students who are not members of that particular college for advanced studies – integrated, or the RCASN students are located in separate wings or buildings from the other students – spatial segregation). Spatially segregated colleges for advanced studies provide opportunities for the students to form stronger connections and more personal interactions. This is sufficiently shown in the figures on the community networks of two colleges for advanced studies with the same number of students (see [Figures 1 and 2](#)). In these figures representing the college for advanced studies networks, Roma students are denoted with grey and non-Roma students with black circles. Individual lines indicate the college for advanced studies connections, and the thicker ones show reciprocal acquaintances.

In the case of colleges for advanced studies operating in a separate building (spatial segregation), the density was higher, meaning that a higher proportion of the possible connections have been realised: we can see that a much greater number of connections were realised in the college for advanced studies operating in a separate building compared to those which share the building with other non-colleges for advanced studies (integrated).

This result is further strengthened when we compare the proportion of college for advanced studies connections of Roma university students' egocentric network with the site of the institutions. Roma students living in spatial segregation had a significantly higher proportion of college ties in their networks (see [Table 1](#)).

The total number of students in colleges for advanced studies showed a correlation with the number of weekly interactions of students (see [Table 2](#)). Colleges for advanced studies with fewer students provide an opportunity for more connections and interactions.

The proportion of Roma and non-Roma students in the college did not show a correlation with the egocentric network features.

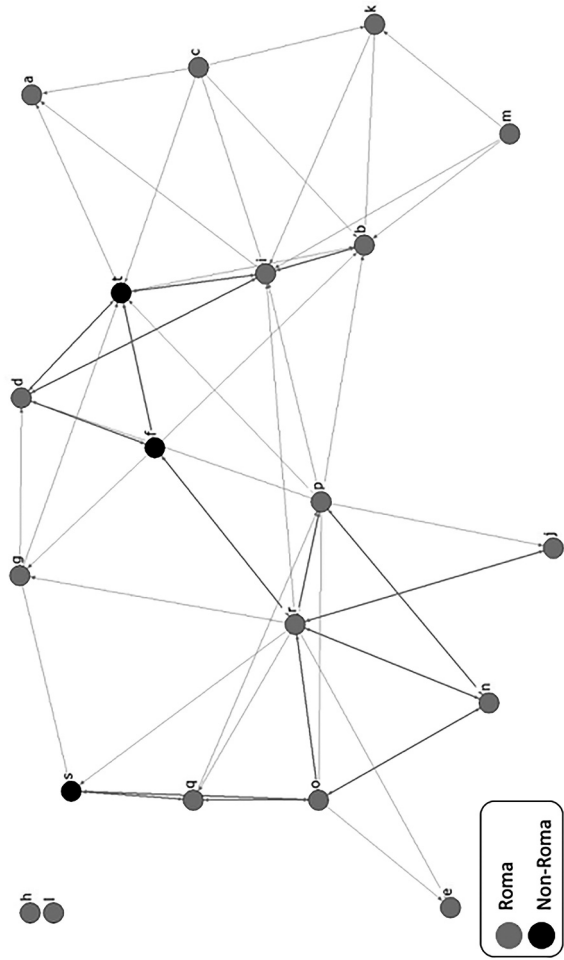


Figure 1. RCASN students' full network when integrated ($N=20$, density=16.6, UCINET).

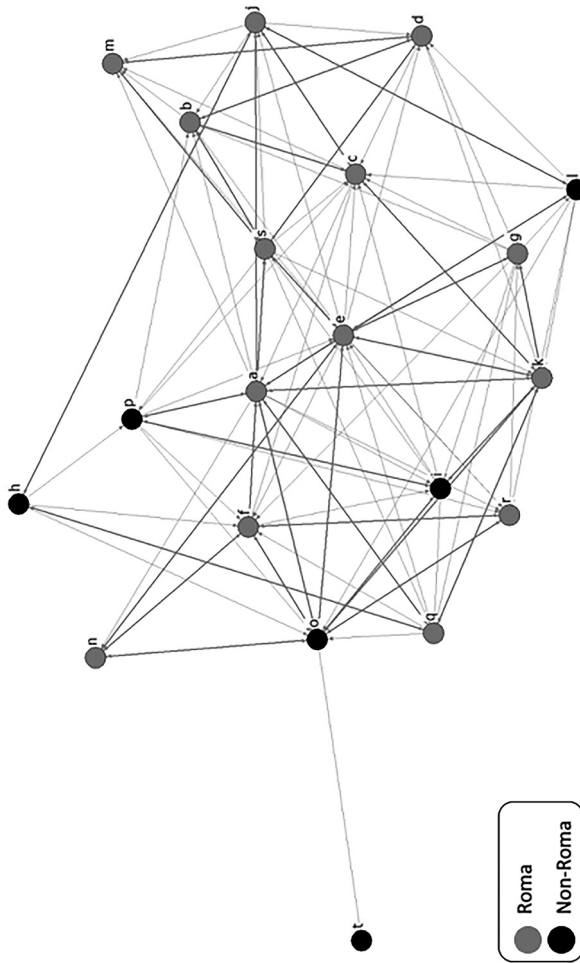


Figure 2. RCASN students' full network when spatially segregated ($N=20$, density=34.7, UCINET).

Table 1. The percentage of college ties in Roma students' egocentric network by the type of RCASN College.

Ties from the RCASN College	Site of the RCASN College			p	Eta ²
	Separate building	Separate site	Non-separated building/site		
Roma (N = 102)	41%	35%	28%	0,027	0,070
Non-Roma (N = 49)	34%	28%	28%	0,602	0,022

Table 2. Interactions by Roma students by the size of RCASN College.

Interactions in 7 days	Size of the RCASN College			p	Eta ²
	Small	Medium	Large		
Roma (N = 102)	71	59	56	0,040	0,063
Non-Roma (N = 49)	68	47	50	0,123	0,087

Our results show that colleges for advanced studies with fewer students and colleges for advanced studies in a separate wing or a separate building (spatial segregation) provide opportunities for much stronger connections. Interestingly, in the case of the non-Roma students, these factors did not play a role: neither the institution's level of separation affected the proportion of their college connections ($p = 0.602$), nor the number of students in the college showed any correlation with the number of their interactions ($p = 0.123$). This means that the college for advanced studies community is more influential for the Roma first-generation university students from the perspective of forming their individual networks. This is confirmed by the fact that while the mentioned correlations can be shown in the case of first-generation intellectual students, the statistical connection disappears in the case of non-first-generation intellectual students.

Individual emotional and structural resources through colleges for advanced studies

The college for advanced studies community is the strongest pillar in the network of Roma university students – even in terms of proportion and availability – meaning that this community is a stabilising force in students' adjustment to college by providing different resources. Although it is important to note that the network proportion of RCASN ties has a negative correlation with university connections ($r = -0.271^{**}$), meaning that the predominance of college ties may also weaken the university connections.

Intensive bonding can strengthen the ties per se, providing fundamental emotional resources to students. This is also supported by the result showing that Roma students share important issues and topics with 45% of their college for advanced studies connections, and personal issues with 39% of them, and this is despite the fact that these ties have mostly (71%) a relatively short relation history – several weeks or months. Almost one-third of close friends

(29%) of students can be tied to the college for advanced studies, but even more importantly, 44% of partners are made up of fellow students from the college. College for advanced studies connections mean a similarly important resource even in the case of non-Roma students, but a smaller proportion of their strong ties – close friends and partners – are from the college for advanced studies ($p = 0.002$, $\Phi = 0.125$) (see [Appendix B](#)).

It is also important to emphasise that more than two-thirds (68%) of the Roma intellectual connections of students (Roma people with a post-secondary degree or Roma university students) are also bound to the college for advanced studies, which means that they know peers in a similar position almost exclusively from this community ($p < 0.001$, $\Phi = 0.527$). Joining a group of first-generation Roma university students provides peers to Roma students and thereby helps them to survive the hardships of structural mobility and adjustment to college not as individuals but as a community.

On average, almost one-fourth (23%) of college for advanced studies ties in the egocentric network of Roma university students are non-Roma people, but the standard deviation was very high among the different networks (Std. Dev. 23.645). The connections of Roma university students are not so intense with non-Roma students ($p < 0.001$, $\text{Eta}^2 = 0.023$), but non-Roma college mates fill an important role: they form a bridge to the non-Roma majority university environment for their Roma peers. Those Roma university students who have a higher proportion of non-Roma college student connections have a more extended network ($r = 0.312^{**}$).

College for advanced studies staff also play an important role in the everyday life of the students: they were mentioned by 70% of Roma students in the contact diaries. One-third of the college staff is of Roma origin. Roma students meet one-fourth of the college staff every day or multiple times per day, or multiple times per week, with one-third of them. College staff provide emotional support for the students, and students also share their important (63%) and personal (48%) issues with the majority of them. The significance of this is supported by the fact that the non-Roma students rely on a much lower proportion ($p < 0.001$), less frequently ($p < 0.001$) and less meaningfully ($p = 0.002$) on these ties (see [Appendix B](#)).

The college for advanced studies also provides significant structural resources for Roma university students. They have one-third of high status (white-collar worker) connections (29%) from the college ($p = 0.002$, Cramer's $V = 0.070$), who may mediate resources for them helping their mobility and adjustment to college. Almost half of their mentors and tutors (48%) are also bound to the college ($p < 0.001$, $\Phi = 0.077$). These persons may help the welfare of Roma students as institutional agents. The mentor and tutor network operated by the colleges for advanced studies and programmes that introduce important players of public and economic life to the students provide key resources for the first-generation intellectual Roma students.

Table 3. Network size among the Roma, Non-Roma RCASN students, and the National Representative Sample (2015) based on contact diary^a.

	Roma RCASN students (N=101)	Non-Roma RCASN students (N=48)	National sample (18-33-year-old respondents with minimum secondary education)* (N=92)
Number of persons connected to in 2 days	12,65	14,04	5,93**
Number of interactions in 2 days	20,17	20,46	7,95**

^aSince on the National Sample a 2-day-long contact diary was applied, we took account of 2-days contacts too.

*Processes of integration and disintegration in the Hungarian Society, 2015 (OTKA 108,836).

**p < 0,001.

These resources are also accessible to non-Roma students of the colleges for advanced studies. They profit from these resources through their connections with lecturers, mentors, and tutors, since they have white-collar connections also from other sources (see [Appendix B](#)). Interestingly, there is no difference between Roma and non-Roma students with respect to the proportion of college for advanced studies contacts ($p = 0.115$), and nor there is any significant difference in their network size ($p = 0.141$) or in the number of interactions per week ($p = 0.694$) (see [Appendix C](#)). However, when comparing the data with respondents of similar age and education levels of the 2015 national representative survey, we can see significant differences (see [Table 3](#)) (Dávid et al. 2017).

The explanation for the more extended network and more frequent interactions of RCASN students – according to our hypothesis – is the college for advanced studies community, which significantly extends the network of these students and the frequency of their interactions.

Discussion

All theories dealing with the academic adjustment of disadvantaged students of any ethnic group emphasise the preserving role of small communities similar to RCASN colleges (Coleman 1988; Tinto 1998; Strayhorn 2012; Nguyen and Nguyen 2020). A wide body of research highlighted that a community – such as a student organisation or colleges for advanced studies – the university student could identify with and can become an active member of (especially if he/she is bound to his/her own culture or ethnic group) can provide social participation and important resources for underrepresented minority students (Guiffrida 2003; Lukács J and Dávid 2019; Grier-Reed and Wilson 2016). To improve the operation of these organisations, it is essential to recognise how they contribute to underrepresented minority students' adjustment to college. In our study, we employed social network analysis to get a deeper understanding of the institutional and social-psychological mechanism regarding these colleges.

First of all, for organisations working with disadvantaged ethnic students, ethnic segregation poses a constant dilemma (Sidanius et al. 2008). RCASN institutions – just like all similar institutions – must assume some degree of segregation if only to be able to reach the target group and provide specific and tailored support. Social network analysis highlighted the main angles of the dilemma of ethnic segregation.

The analysis of the community networks of RCASN colleges showed that colleges for advanced studies with fewer students and those operating in separate buildings (spatial segregation) provide an opportunity for much stronger connections and more interactions for the students. However, the analysis also showed that the predominance of college for advanced studies ties may hinder the formation of host connections, and this way hampers the stronger bonding to the university (Hurtado and Carter 1997; Strayhorn 2012). Studies analysing the phenomenon of propinquity regarding student organisations spotlight that certain types of peer interactions mediate the relationship between structural diversity and interracial friendship (Park and Kim 2013). In other words, RCASN colleges solidify the otherness of Roma students by ethnic segregation; however, through experiencing otherness, Roma students can strengthen their ethnic identity, as it defined vis-à-vis the non-Roma (Kirova and Prochner 2015). The question is whether colleges for advanced studies operating in a separate building or those embedded in university campuses will be more useful in the long term for Roma students.

Another aspect of ethnic segregation is the ideal proportion of non-Roma students in colleges for advanced studies, which also divides the institutions of the RCASN. The proportion of non-Roma students within a college for advanced studies did not show a correlation with the features of egocentric networks, but it is important to highlight the bridging role of non-Roma students, which connects their Roma college fellows to their circle of friends and university mates and thus to the majority society (Museus 2014). Besides structural resources, these heterophilous ties provide cultural resources as well by helping Roma students to navigate the norms of the university (Park and Kim 2013). Also, the co-habitation of the Roma and non-Roma students in RCASN colleges can diminish otherness in a natural way. To summarise, RCASN colleges have to find the delicate balance regarding the extent of segregation (i.e. site, size of the colleges and the proportion of non-Roma students) focusing on Roma students' successful adjustment to college (Park and Kim 2013).

Based on our results, colleges for advanced studies communities play an important role in the everyday life of Roma students. The college community may bring stability into the process of academic adjustment of Roma university students balancing between the familial and the university milieu (Coleman 1988; Tinto 1998; Lukács J and Dávid 2019). One of the significant advantages of the small communities similar to RCASN institutions is that Roma university students can share and work through the challenges they encounter during structural mobility

and adjustment to college with their fellows – being also first-generation Roma university students. The college community plays an important role in providing emotional security (Guiffrida 2003; Museus 2014). Besides, RCASN colleges link students with high status alters in the form of college staff, mentors, and tutors, thus enriching their structural resources helping academic adjustment. For students lacking the supportive bonds provided by their family or friends, resources provided by the college community are vital. By transferring heterogenous ties, RCASN colleges can improve the cultural match between the students and the university. Students experience the culture of interdependence with their Roma peers from the same background, while heterophilous – non-Roma, or high-status – ties convey structural resources and the culture of independence (Stephens et al. 2012; Nguyen and Nguyen 2020). Both of them are necessary for successful adjustment to college.

There was no difference between Roma and non-Roma students in terms of the proportion of college connections, but comparison with adolescents of similar age and education level shows clearly that college for advanced studies community – similarly to other student organisations (Park and Kim 2013) - significantly increases the network of students and the number of their interactions. Small university communities similar to the Roma colleges play an important role in the process of adjustment to college regardless of ethnicity; however, for first-generation Roma university students, the college community is more influential in the formation of their network.

Across Central and Eastern European countries Roma students face similar issues (financial problems, segregated education, discrimination and identity issues) (Chipea and Bottyan 2012; Bottyan 2014; Garaz and Torotcoi 2017; Marcu 2019). Furthermore, traditional Romani cultural values are not always compatible with institutional schooling, which creates a more tense balancing situation (Brüggemann 2014; Lauritzen and Nodeland 2018). Our results highlight that student organisations similar to RCASN colleges could play a key role in the process of Roma students' adjustment to college by supporting students with many resources. Moreover, these institutions could aid students to adapt to the institutional culture of the university while preserving their minority culture and identity.

Limitations

It has to be emphasised that being a college for advanced studies student creates a special situation both for Roma and non-Roma students. These special features could be interpreted fully only if the results of RCASN students could be compared with the network characteristics of students living in dormitories, rented flats, or at home with their parents. Similarly, another limitation we are aware of is that we investigate students' social environment and the role of RCASN colleges based on social network data. Therefore, another substantial

future direction is the qualitative examination of Roma students' adjustment to college and RCASN colleges.

Note

1. The contact diary was kept by students for one week in every school year. This meant that their interactions for the given week were registered in the diary: with whom, where, and in what form did they communicate. We also asked the sociodemographic characteristics of the persons mentioned in the diary and the characteristics of the connection. With the help of this method, we have explored the size of the network, composition and the strength of ties.

Disclosure statement

No potential conflict of interest was reported by the author(s).

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Appendix A. Sociodemographic characteristics of Roma and Non-Roma RCASN students

	Roma (N=124)	Non-Roma (N=59)	p
Sex			p = 0,227
Male	47%	37%	
Female	53%	63%	
Age	Mean = 21,45, Std.Dev. = 2,429	Mean = 21,24, Std.Dev. = 2,136	p = 0,619
Grade			p = 0,154
1	40%	52%	
2	36%	17%	
3	10%	17%	
4	6%	8%	
5	8%	6%	
Municipality size			p = 0,598
5000>	46%	51%	
5001–20000	28%	29%	
20001–100000	12%	6%	
100001>	14%	14%	
First-generation intellectual			p = 0,005 Phi = 0,226
Yes	86%	66%	
No	14%	34%	
Number of siblings	Mean = 1,67, Std.Dev. = 1,050	Mean = 1,62, Std.Dev. = 0,862	p = 0,819
Household size	Mean = 4,44, Std.Dev. = 1,437	Mean = 4,45, Std.Dev. = 1,454	p = 0,983

Appendix B. Resources from RCASN colleges in the case of Roma and Non-Roma RCASN students

	Roma (N=124)	Non-Roma (N=59)	p
Percentage of RCASN ties. . .			
... with whom students talk about important matters	45%	42%	p = 0,855
... with whom students talk about about personal matters	39%	40%	p = 0,041 Phi = 0,057
...with a few week- or month-long contact	71%	77%	p = 0,031 Phi 0,088
Percentage of RCASN ties in students' . . .			
...close friends	29%	19%	p = 0,002 Phi = 0,125
... partners	44%	26%	p < 0,001 Phi = 0,836
...white-collar worker connections	29,1%	17,7%	p < 0,001 Cramer's V = 0,095
...institutional agents connections	47,8%	50%	p < 0,001 Cramer's V = 0,086
Percentage of RCASN staff in students' network	70%	31%	p < 0,001 Phi = 0,144
Percentage of RCASN staff with whom students talk. . .			
...in a daily basis	24,8%	19%	p < 0,001 Phi = 0,414
...every week	36,2%	44,2%	p = 0,002 Phi = 0,064

(Continued)

	Roma (N=124)	Non-Roma (N=59)	p
.. .about important matters	63,1%	69,8%	p = 0,002 Phi = 0,064
.. .about personal matters	47,6%	41,9%	p = 0,031 Phi = 0,049

Appendix C. Egocentric network characteristics of Roma and Non-Roma RCASN students

	Roma (N=124)	Non-Roma (N=59)	p
Network size	Mean = 25,85, Std.Dev. = 11,976	Mean = 28,69, Std.Dev. = 12,584	p = 0,141
Number of interactions in 1 week	Mean = 65,4, Std.Dev. = 26,778	Mean = 63,51, Std.Dev. = 29,148	p = 0,694
Percentage of RCASN ties	Mean = 36, 25, Std.Dev. = 19,399	Mean = 30,9, Std.Dev. = 19,464	p = 0,115