The impact of upbringing and the local community on the development of environmental awareness among college educated people in Bosnia and Herzegovina

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Abstract

Environmental problems are global problems today but the development of environmental awareness and the approach to one varies between the countries, and even between the municipalities of the same country. Numerous natural and social factors have an impact on its development. Research presented in this article collected the data from the inhabitants and analyzed the level of influence of the following social factors—education, upbringing and local community, on the development of environmental awareness among college educated people in Bosnia and Herzegovina. Data collected through the anonymous survey included answers of the population born after 1995, after the civil war in the country. Chosen questions are related to the waste disposal and processing along with the waste treatment in their communities and households. This article explores how strong the impact of these factors on the development of environmental awareness is and which of them has the greatest influence.

Keywords Environmental awareness · Education · Upbringing · Local community · Bosnia and Herzegovina

1 Introduction

For centuries man had been ruthlessly using natural resources without remorse and thinking. As a consequence appeared a strong opposition that demanded the change in lifestyle. The issue of socioeconomic development prevailed over the issue of the state of ecosystems until the 1970s. As the second issue gained importance, it became clear that the approach of the inexhaustability of natural resources and the limitlessness of its consumption must be abandoned (Petrović & Škrbić, 2016). Public participation in natural resource management was promoted internationally in the 1970s and the 1980s by the Conferences in Stockholm, UN General Assembly and World Charter for Nature in 1982 and it gained momentum following the UN Conference on Environment and Development in Rio in 1992. Despite
strong support for participation by the international community, practical implementation has met with varied levels of success (Hoogstra-Klein et al., 2012).

Bosnia and Herzegovina is one of the countries that lags behind Europe and the developed world, economically and environmentally. It is ranked 78 out of 180 countries on the Environmental Performance Index (EPI) for the year 2020, which puts it after all other European countries (Wendling et al., 2020). Development of environmental awareness or simply people’s interest in changing their way of life to influence the environment is very low in this country. Reasons for this attitude are numerous but refer mostly to bad financial and political situation, relatively recent civil war, still present national conflicts and complicated history. There is an attitude of inhabitants that the government should be responsible and there is no individual responsibility regarding environmental protection (Đurić, 2019).

1.1 The context of the study

There are different opinions about which factors have the greatest influence on the development of environmental awareness. Haenn and Wilk (2006) think that factors that influence the development of environmental awareness and people’s attitude are culture, socialization and education. Vicente–Molina (2013) believes that education and knowledge of environmental issues clearly influence pro-environmental behavior, where objective and subjective knowledge influence the environmental performance of students from both advanced and emerging countries. Authors of former SFRY think that ecology education and awareness development begin in the earliest childhood, in the family circle or, in the earliest age (Adamović, 2009; Andevski, 2016; Barjaktarović, 2016; Jovičić & Markov, 2011; Kandrić, S. A., & Skenderović, 2020; Pavlović & Gavrić, 2017; Pozar et al., 2018; Stanišić, 2009).

By Duroy (2005), environmental quality is perceived as a luxury good that becomes of concern only when basic needs have been met, thus wealthy countries are more likely to exhibit a strong demand for environmental quality than developing ones. However, in the ongoing pandemic situation, counties showed similar interest in environmental awareness or the lack of one. Analysis of online search behavior in European Union indicated that behavioral changes associated with the crisis are accompanied by positive changes in public awareness regarding natural resources such as forests and birdlife, while issues such as climate changes were found to be unaffected by the COVID-19 crisis based on online search trends (Rousseau & Deschacht, 2020). Research conducted by Severo et al. (2020) shows that there has been increased concern about socio-environmental issues and the consumption of environmentally sustainable products in Brazil and Portugal. On the other hand, there has also been an increase in the production of household waste.

This research focused on certain factors that are important in the development of environmental awareness among the inhabitants of a particular area in Bosnia and Herzegovina. Three factors were chosen as critical: education, upbringing in a certain environment and, living in a certain community today and were analyzed their interrelations among college—educated people. This article represents the results of research aimed to understand which of the mentioned factors has the biggest influence in shaping and developing of environmental awareness in young people, and to see if education can change the way of behavior regarding environment and its problems.
Since the nineties (1990s), the government in Bosnia and Herzegovina has made efforts to raise and improve environmental awareness by implementing ecology classes in the school system. Environmental protection education is present in all grades of elementary school, through different subjects and school activities (Curriculum for elementary education, 2014). Young children, age 3 to 6, have a strong environmental sense and developed environmental awareness, but they are later lost under the influence of modern technologies, a consumer—oriented lifestyle and an urban environment (Shapiro & Pilsitz, 1995). This observation is present in students in Bosnia and Herzegovina, where it can be seen that the interest in environmental protection decreases with age. Older students in secondary school tend to lose interest in environment and start to worry about other things. Along with interest, their knowledge also decreases (Đurić, 2019).

Previous research has also shown that elementary students of this area have big knowledge and use terminology correctly, but they are not sure how to use what they learned in practice, in everyday life (Pozar et al., 2018). It is important to cultivate environmental contents through both teaching and extracurricular activities (Veselinovska & Osogovska, 2012). Most of eco-friendly activities in elementary school are related to collecting garbage in the schoolyard and rarely planting flowers or small growing trees. Many research conducted about environmental awareness in transition countries, especially Russia, show that the accent is put on formal education while practical knowledge and public awareness are not as important (Blinnikov and Lindsay, 2010; Crotty & Hall, 2012; Kasimov et al., 2005). This makes it more difficult for students to understand something they never experienced. Authors around the world believe that education alone is not sufficient for the development of environmental awareness, but it is certainly important in understanding the processes and phenomena that can help in creating a healthy relation with the nature (Barjaktarović, 2016; Barraza & Walford, 2002; Hines et al., 2010; Hungerford & Volk, 1990; Oğuz et al., 2010; Owens, 2000).

On the territory of Bosnia and Herzegovina, when it comes to environmental awareness, attention is rarely given to relations between people, community, and family. There are no studies that are exclusively dedicated to researching the influence of the family and the community on the development of awareness. The most important documents that include other factors that can have an impact on raising environmental awareness among people are Local Ecological Action Plans, or LEAP, of several municipalities, for the research area specifically LEAP of the city of Bijeljina (LEAP, 2018). Importance of the community on the development of environmental awareness is observed partly through the level of urbanization of the settlement in this article.

2 Methodology

2.1 Design

This article is a product of mixed quantitative and qualitative research. Quantitative research was primary. It was necessary to obtain numerical values of different fields of interest. This analysis was used to describe the importance of education, upbringing, and community with the aim of objectivity. It was important to understand which of the mentioned factors is dominant in raising environmental awareness and why. After the completion of quantitative, qualitative research was used to describe obtained numerical results
and to supplement the research. Every information in this article was obtained with the method of survey.

### 2.2 Method and research tool

Survey as a method and questionnaire as a research tool of data collection were chosen. This article focuses only on the population’s attitude toward waste and its treatment. The topic was chosen based on a previous survey used for the author’s doctoral dissertation, where 14.3% of the surveyed population said that waste is one of 5 main ecological problems in the researched area (Đurić, 2021).

Like many other articles that included research on understanding the people’s attitude toward the environment, this research used the method of survey. The survey was made as a Google questionnaire (Google form) and was conducted on the author’s laptop. All questions in the questionnaires were written in all three official languages of Bosnia and Herzegovina (Serbian, Bosnian and Croatian) and the participants were given the option to use the language they prefer. The survey was anonymous and was performed in the presence of the author. All questionnaires were completed in public places, such as coffee shops and parks, and the participants were allowed to ask for clarification of the question they do not understand.

The questionnaire consisted of 0 + 10 questions divided into three parts (Appendix 1). The first part of the questionnaire consisted of general questions about the participant, the second part of the questionnaire consisted of basic knowledge of waste treatment and the third part of the questionnaire consisted of people’s interest to learn and implement new ideas in their households in order to improve current situation. Surveyed were the residents of 29 settlements of different development, population and urbanization, in the period of seven days in February 2020. By reviewing the answers were obtained the results, which were presented numerically.

Limitation of this study lies in the potential interest of participants in other areas of the environment and its protection. Since this research focused only on waste and its treatment, variations could occur if other areas of environmental protection were included in other research in the future. Also, it is always questionable if the participants are giving true answers or they simply just do it mechanically. For this reason, participants were told to do the survey only if they wanted to. Based on that, we can assume that the participants’ answers are credible and that those who participated in the survey wanted to contribute to this research.

### 3 Research sites

Research included the population of Semberija and Majevica. This area is located in the northeast part of Bosnia and Herzegovina, in Republic of Srpska entity. It consists of three municipalities, Bijeljina, Ugljevik and Lopare, and has 138,782 inhabitants in total. Bijeljina municipality has 107,715 inhabitants, Ugljevik municipality has 15,710 inhabitants and Lopare municipality has 15,357 inhabitants (Census, 2013). The relief consists of the fertile plain Semberija and the low mountain Majevica.

Development of Bosnia and Herzegovina is in great measure conditioned by the development of other countries of former SFRY, especially Serbia and Croatia (Fig. 1). Research area is under the great influence of Serbia since the population in the entity of Republic of Srpska
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is mostly Serbian, approximately 87% (Census, 2013). The impact of Serbia can be seen through the similarities of environmental awareness between these two areas. In the research, conducted by Bartula et al. (2016) population of Serbia and Bosnia and Herzegovina cross border region, which included the municipality of Bijeljina, showed similar opinions regarding environmental problems.

This research included 29 settlements in three municipalities: Bijeljina (16 settlements), Ugljevik (7 settlements) and Lopare (6 settlements). Settlements have different levels of urbanization. In the researched area, there are five types of settlements. Those are urban center, small town, nucleated village, mixed village and dispersed village. The center of researched area is the city of Bijeljina that has 42,278 inhabitants. Three settlements have characteristics of a small town, Ugljevik (4025 inhabitants), Janja (11,710 inhabitants) and Lopare (2447 inhabitants). The rest of the settlements are rural, 25 in total, with different levels of development (Fig. 2).

Bijeljina municipality is the most developed of the three and is one of twenty municipalities in Bosnia and Herzegovina, i.e., one of only five in Republic of Srpska entity that has population growth compared to 1991 (http://www.statistika.ba). According to the Spatial plan of Republic of Srpska to the year 2025, the level of economic development of Bijeljina municipality is second, Ugljevik municipality fourth and Lopare municipality six (on a development scale of one to six).
3.1 Participants

Total number of participants that were a part of the survey was 185. All participants were unknown to the author before the survey. Participants were given instructions and explanations about the importance of this survey, its purpose and the importance of their honest answers. Several conditions were included regarding participants who were included in the research.

The first condition was the age of the participants. Target age group was the population of 20–24 years, meaning the population that was born after 1995, after the civil war in Bosnia and Herzegovina. Age of surveyed population was chosen based on the current political situation and state regulation, considering that habits are hard to change (Owens, 2000). People that are over forty years old grew up in a completely different state system, and those born between 1980 and 1995 grew up in something in between with various restrictions. The new generation had the opportunity to learn more about the environmental protection in school and also lives in the world of social media that is one of the main sources of information today.

The second condition was that a participant has a college degree or is still studying in one. As previously explained education is considered as the main factor for the development of environmental awareness. Since college degree represents higher education, it was important to see how much the level of knowledge affects the attitude toward the environment and its protection.
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The third and final condition was that participant does not work/study in the area of environmental protection. It has been presented in several types of research that people closer to the subject of environment have greater knowledge and awareness. In the research conducted by Petrović and Škrbić (2016) students of Environmental Studies at the Faculty of Geography were more willing to engage in environmental workshops and actions than students of Faculties of Social Sciences and students of Faculty of Mining and Geology. In research conducted by Pozar et al. (2018) children whose parents worked jobs related in any way to the environmental protection showed greater knowledge, understanding and interest in environmental subjects in school. It is important to emphasize that students and pupils that showed willingness and knowledge are outnumbered by students and pupils that had no interest in environment in both studies. Considering this, it was important for this research to include population that does not have everyday contact with environmental problems through work or education.

4 Results

As mentioned in the previous section, the questionnaire was divided into three parts. Answers to the first part gave the base for the following questions, second and third part. Answers to the second part showed the differences in awareness and knowledge between people that live in rural and urban settlements, those who have studied or lived in other countries, and also the impact of family, household, and community. Finally, the answers to the third part showed the interest of people in changing their behavior and improving waste treatment in their household and whether the impact of media and education are enough for the development of environmental awareness or additional push from government and non-governmental organizations is necessary.

The question labeled as 0 Age and gender, did not have importance in general overview of the results. Answers of male population make 56.8%. There is no specific reason for this result, nor can it be said that women were less interested in participating in the survey. Simply, fewer women were present at the research areas during the surveys (Table 1). The same refers to the age group (Table 2). Throughout the research, no link was

| Table 1 | Question 0—Gender |
|---------|-------------------|
| Gender  | Number of participants |
| Male    | 105               |
| Female  | 80                |

| Table 2 | Question 0—age |
|---------|----------------|
| Age     | Number of participants |
| 20      | 27               |
| 21      | 25               |
| 22      | 46               |
| 23      | 56               |
| 24      | 31               |

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found between gender and age, in the observed target group, that showed a greater or lesser impact on knowledge, awareness, and willingness in the improvement of environment and waste treatment.

The first question, which was “The settlement where you currently live” is one of the most important in the first part of the survey, because it gave a base for the type of community in which participants live. The level of urbanization of settlements is an important factor for the current state of mind regarding environmental awareness. In the area of Bijeljina municipality were surveyed 129 participants within the 16 settlements (Table 3), in Ugljevik municipality were surveyed 38 participants within 7 settlements (Table 4), and in the

| No | Settlement   | Type of the settlement | Number of inhabitants Age 20–24 | Total  | Surveyed population |
|----|--------------|------------------------|----------------------------------|--------|---------------------|
| 1  | Amajlije     | Nucleated village      | 75 1131                          | 6      |
| 2  | Balatun      | Nucleated village      | 70 1286                          | 3      |
| 3  | Banjica      | Dispersed village      | 15 281                           | 1      |
| 4  | Bijeljina    | Urban center of the research area | 2278 42,278 | 59    |
| 5  | CrnjelovoGornje | Mixed village       | 101 1347                         | 2      |
| 6  | Čardačine    | Mixed village          | 30 509                           | 2      |
| 7  | Dvorovi      | Nucleated village      | 259 4873                         | 17     |
| 8  | Glogovac     | Mixed village          | 21 414                           | 1      |
| 9  | Hase         | Nucleated village      | 57 956                           | 4      |
| 10 | Janja        | Small town             | 882 11,710                       | 15     |
| 11 | Ljeljenča    | Mixed village          | 47 939                           | 4      |
| 12 | Patkovača    | Nucleated village      | 112 2619                         | 7      |
| 13 | Piperci      | Dispersed village      | 10 196                           | 1      |
| 14 | Ruhotina     | Mixed village          | 23 277                           | 1      |
| 15 | Suho Polje   | Dispersed village      | 78 1194                          | 1      |
| 16 | VelikaObarska | Mixed village       | 220 3942                         | 5      |

| No | Settlement   | Type of the settlement | Number of inhabitants Age 20–24 | Total  | Surveyed population |
|----|--------------|------------------------|----------------------------------|--------|---------------------|
| 1  | Atmačići    | Nucleated village      | 32 490                           | 2      |
| 2  | Mezgraja    | Dispersed village      | 35 465                           | 1      |
| 3  | StariUgljevik | Dispersed village       | 40 737                           | 4      |
| 4  | Tutnjevac   | Dispersed village      | 73 1072                          | 5      |
| 5  | Ugljevik    | Small town             | 316 4025                         | 20     |
| 6  | Ugljevička Obrijež | Nucleated village | 69 961                           | 5      |
| 7  | Ugljevik Selo | Mixed village       | 32 499                           | 1      |
Lopare municipality were surveyed 18 participants within 6 settlements (Table 5). Participants from urban areas showed greater knowledge on waste treatment in their households and interest in participating in educative workshops than people from rural areas.

From Tables 3, 4 and 5 can be seen that most of the participants currently live in urban areas (urban center the city of Bijeljina and small towns), over 55% of the total number. For the environmental awareness and community as a factor that affects its development, it is very important to know how long the participant has been living in the current settlement. Percentage of surveyed population that lives in the current settlement their whole life is 71.40% (Table 6). Participants who live in urban settlements showed greater interest and participant that live in rural settlements a complete disinterest for the participation in educational workshops. Participants from rural environments also have less knowledge about the impact of waste on pollution. Only 7 participants live in the current settlement less than a year. Those participants showed greater knowledge, but same interest in solving the problems related to waste and its treatment.

Most of the participants grew up and still live in the same settlement (minus the years of studying/working in other settlements in the country or abroad). About 48.1% of participants grew up in a rural environment (Table 7). As in the previous question, results showed that those who grew up in a rural area showed less knowledge and interest than those who grew up in urban areas. The overlap of those who grew up in an urban environment and today live in a rural one does not benefit environmental awareness, as these participants have largely adapted to the situation of the settlement in which they currently live. Questions 2 and 3 represent the strength of the community in the development of environmental awareness.

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1 Total number of inhabitants and number of inhabitants for the target age group for each settlement were obtained from http://www.statistika.ba and Census (2013).

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Table 5 Types of settlements within Lopare municipality and the number of participants of target age group

| No | Settlement | Type of the settlement | Number of inhabitants | Surveyed population |
|----|------------|------------------------|-----------------------|---------------------|
|    |            |                        | Age 20–24 | Total | popula- |
|----|------------|------------------------|-----------|-------|tion    |
| 1  | Brusnica   | Dispersed village      | 20        | 382   | 1       |
| 2  | Jablanica  | Dispersed village      | 52        | 889   | 2       |
| 3  | Lopare     | Small town             | 176       | 2447  | 9       |
| 4  | Poperi     | Dispersed village      | 61        | 873   | 1       |
| 5  | Priboj     | Nucleated village      | 77        | 1358  | 3       |
| 6  | Tobut      | Dispersed village      | 69        | 1196  | 2       |

Table 6 Question 2

| How long have you been living there | Number of participants |
|-------------------------------------|------------------------|
| Less than a year                    | 7                      |
| Between 1 and 5 years               | 25                     |
| More than 5 years                   | 21                     |
| Whole life                          | 132                    |
58.9% of the surveyed population has a college degree (Table 8). This research found no difference in the development of environmental awareness, knowledge, and interest between participation who graduated from college and those who are still studying.

59.5% of the surveyed population never worked or lived in another country (Table 9). This question gave information that turned out to be the most important for the understanding of people’s attitude toward the environment, regarding waste and its treatment. From participants that live or grew up in a rural environment, the greatest knowledge showed those who spent a certain period studying or working in other countries. The population has great ability of adapting to the new conditions of different places. Most of these participants were familiar with recycling. There is a difference between those who spent time in surrounding countries and those who were in other more distant countries. Participants that were in surrounding countries rarely improved their knowledge or awareness.

88.1% of participants said that they pay a monthly fee for garbage removal (Table 10). Only 7 participants said they recycle, but in question 10 they explained that they only recycle within certain institutions or companies where they work (6 out of 7 participants

| Table 7 Question 3 | Did you grow up in urban or rural environment | Number of participants |
|--------------------|---------------------------------------------|------------------------|
| Urban              | 57                                          |                        |
| Rural              | 89                                          |                        |
| Partly urban       | 39                                          |                        |

| Table 8 Question 4 | What is the current status of your education | Number of participants |
|--------------------|---------------------------------------------|------------------------|
| Obtained a college degree | 109                                      |                        |
| Still in college    | 76                                          |                        |

| Table 9 Question 5 | Have you ever studied/worked abroad for a year or more | Number of participants |
|--------------------|-------------------------------------------------------|------------------------|
| Yes                | 21                                                    |                        |
| Yes, in surrounding countries | 110                                |                        |
| No                 | 54                                                    |                        |

| Table 10 Question 6 | How do you treat waste in your household | Number of participants |
|--------------------|------------------------------------------|------------------------|
| Monthly payment to the utility company for waste collection | 164                                      |                        |
| Self-disposal of waste in the forest, river, etc | 15                                       |                        |
| Recycling        | 7                                        |                        |
lived outside of Bosnia and Herzegovina). Most of the participants that gave this answer live in Bijeljina municipality. None of these participants recycle home, because, according to them they are not sure how recycling there works or if it even exists on the individual level. This means that even those who are environmentally aware are not familiar with the existence of recycling in their settlement.

The worrying fact is that 15 participants (8.1%) said they dispose of the waste themselves by throwing it in the river. Most of these participants live in rural environments and only one of them grew up in the urban environment but currently lives in a rural. This shows the strong impact of the living area and also the adjustment of the individuals to the new conditions. This is a big problem because the researched area has a lot of illegal waste dumps (Local Waste Management Plan, 2011; Project, 2019; Report, 2021; Đurić, 2021). Some municipalities, like Ugljevik, do not collect the waste in all settlements so inhabitants must manage it by themselves (Local Waste Management Plan, 2011). Bijeljina and Lopare municipalities have a fully regulated waste disposal system, weekly and monthly, and yet some people still decide to dispose of the waste by themselves (Report, 2019, Project, 2019).

54.6% of participants said they are not familiar with how household waste treatment contributes to environmental pollution and 18.9% said they never thought about it (Table 11). Considering the presence of environmental subjects in schools and colleges this number should be a lot smaller. The lack of interest was shown mainly by the participants of rural settlements. Even though there are many studies that show that becoming a parent increases the interest in solving environmental problems (Thomas et al., 2017) participants that showed no interest in this research present a potential danger for not passing awareness to their potential future children since the awareness was not passed on them by their families. The problem with those who do not think about the impact of waste on pollution is that they represent family and community opinions. This can be related to psychological distance, or the belief that environmental problems are too uncertain and likely to happen in distant places in the future and to people unlike oneself (Spence et al., 2011; Evans et al., 2014; Milfont, 2010; Schultz et al., 2012; Thomas et al., 2017). From 49 participants that answered with yes, only two were raised in rural environments, but studied/worked outside of Bosnia and Herzegovina.

Over 40% of participants said that they never talk about the waste in their household (Table 12). This percentage is expectedly high since only 7.14% of surveyed students, ages 9–11, said the first time they were introduced to the term ecology was in school (Pozar et al., 2018). Participants of urban and semi-urban environments had a more positive approach on this subject, where over 50% of the participants that live in urban areas said they talk about waste and its treatment in their household. Reasons for this are numerous but may be related to the fact that there is much more waste in urban than in rural areas, so the population is, therefore, more aware of it.

| Question 7 | Do you know how household waste treatment contributes to environmental pollution | Number of participants |
|------------|---------------------------------------------------------------------------------|------------------------|
| Yes        |                                                                                  | 49                     |
| No         |                                                                                  | 101                    |
| I don’t think about it |                                                | 35                     |
Only 31.4% of participants answered that they would be interested to participate in educative workshops that discuss the proper disposal of household waste and that they would actually try to apply it in their home. 27.6% of participants said they would, but are not sure they would apply it in their home and 41.1% of participants answered that does not interest them at all (Table 13). Again, participants from urban areas showed more interest in improving their knowledge, as well as participants that lived or worked in foreign distant countries.

In the last question participants expressed their opinion about the waste treatment. The unwillingness of the population to change bad habits is mainly, according to the answers, a consequence of the environment in which they live where ecological problems are not a priority, that is, where waste is the concern of the authorities and not of the individuals (Appendix 2). An individual who believes that he/she is powerless to make changes in society probably will not act in a citizenship dimension, there is no expectation of success or reinforcement for acting and this person would have an external locus of control for trying to help resolve environmental issues (Hungerford & Volk, 1990). Also, there is a fear of ridicule by the community, especially in rural parts, looking at environmental protection as “Western propaganda.” The fact is that the population has an aversion to a certain way of life of the developed countries, considering that they cannot identify their problems with the problems of people in Bosnia and Herzegovina (Đurić, 2019). A small percentage of participants who expressed a desire to improve the environment also cited the indifference of family and friends. Only a few participants mentioned the schooling system as a way of improving the environmental protection and a lot of them said only stricter laws and fees can make a difference. Overall most of the participants of this research believe that only fines and stricter laws can help with the situation of poor environmental treatment in Bosnia and Herzegovina.

## 5 Discussion

The results obtained by answer analysis gave an insight into the condition and attitude of the population toward waste and its treatment in the studied area and showed whether education can overcome the impact of the community. Answers largely depended from the
The impact of upbringing and the local community on the development of the settlement in which participants live. Results showed that the biggest influence on environmental awareness has the community of the settlement where participants live, then upbringing, and the least education. The problem with education is that even though it is dedicated to environmental protection, it still has no influence because knowledge obtained through school is not applicable in practice. It is unlikely that people will change their behavior just because they are told to do so, or they learned it’s wrong to destroy nature and the environment. Knowledge obtained by working and studying in other countries had no significant impact in Bosnia and Herzegovina. It is important to include family in education, through subjects or through different workshops that would benefit parents, young adults, and children. The example of family involvement in the school system through the subject called Family ecology in college gave positive results in Jakarta State University (Nursetiawati et al., 2020).

Issues like promotion of the environment and talking about environmental problems are given little to no attention. Environmental awareness campaigns play a big role in improving of an individual’s environmental awareness and changing their attitudes toward environmental issues. Although some authors believe that the role of social media in environmental awareness and teaching is not precisely determined (Hamid et al., 2017) there is no doubt that the use of it can be positive for students in learning and expand horizons. However, most of the material presented through media and social media that people in Bosnia and Herzegovina see refers to foreign countries. In the minds of the people, environmental problems are the problems of the world far away from them (Đurić, 2019, Požar et al. 2018).

It should be noted that awareness varies between individuals on a large scale. However, it is very difficult to determine whether the person is environmentally aware or just “loves nature.” According to the 1977 Tbilisi Intergovernmental Conference on Environmental Education environmentally responsible citizen has (1) an awareness and sensitivity to the total environment and its allied problems [and/or issues], (2) a basic understanding of the environment and its allied problems [and/or issues], (3) feelings of concern for the environment and motivation for actively participating in environmental improvement and protection, (4) skills for identifying and solving environmental problems [and/or issues], and (5) active involvement at all levels in working toward resolution of environmental problems [and/or issues] (Hungerford & Volk, 1990).

On the area of Bosnia and Herzegovina, this definition is very hard to accomplish. People’s opinion is in a great measure dependent from the opinion of the community. Unfortunately, generations over 40 years are not willing to change their habits and younger generations are dependent and influenced by their beliefs (Đurić, 2019). Changes that created a social climate, as they did in Bosnia and Herzegovina and many other transition post war countries, as a result view sustainable development and environmental education second to economic stability and falling living standards (Crotty 2012). Younger generations are and will be affected by environmental problems arising from previous and present actions, so they need to be provided with accurate environmental knowledge and skills to develop sustainable solutions (Oğuz et al., 2010). It is widely believed that an individual cannot change the current situation unless he or she is in a good political position. Individuals that do want to change something and have great knowledge about the problems are suppressed by the quantity of the community. Disposing garbage into the river is one of the most serious problems. People of rural environments are used to do that for generations. They refuse to pay for something if they can do it by themselves. If it is normal in their family, if the previous generations did the same, there is a small chance that the new generation would do differently.
People are not included in environmental problems, and that is the main issue. There is a presumed link between environmental education, public awareness of the environment and sustainable development (Holt & Barkemeyer, 2012). Municipalities and the government should insist on including people, especially from rural parts, into discussions about changing things for the better. People further removed from the natural environment may be more likely to express a need to preserve it, as they might feel the negative impact of its absence (Duroy, 2005). They should also insist on introducing people to new technologies and even have periodical visits to every settlement in the municipality. Schools should pay more attention to practically show pupils how they can solve the most basic environmental problems, such as waste separation, and less on the theoretical part. Pupils should be able to understand the issues related to the environment and factors that are relevant for its protection and development of the environmental awareness (Evangelinos et al., 2009; Hamid et al., 2017; Yuan et al., 2013; Yurttas & Sulun, 2010; Zhang et al., 2011). The population in general should be aware that changes are not there to submit them to Europe and the Western world but to contribute to the improvement in their own country. There should be more talk about the environmental problems in the media, especially about those in the country. Also, people from rural parts should be introduced with the fact that time has changed and that through modern technology sometimes younger generations can know better.

6 Conclusion

The aim of this article was to understand the level of impact of the upbringing and the community on the development of environmental awareness among college—educated people and to see how important education is in changing opinions. The research was conducted through survey in 29 settlements of different levels of urbanization in the northeast part of Bosnia and Herzegovina. Analysis of the answers showed that upbringing and, especially the community where participants live today have a much stronger influence than education. This is particularly expressed in rural parts.

The introduction of ecology into school systems has certainly paved the way for better thinking, but most of it is still reflected in theory, with minimal presence in practice. Knowledge does not guarantee better application and ecology does not have a significant influence on pupils in school, where it goes unnoticed. The population is aware of the environmental problems, but does not show a desire to change them or to advance knowledge that would contribute to the improvement. Educated people have good knowledge about environmental problems, but rarely have the willingness to make changes themselves. This is mostly notable in the responses of the population that said they treated waste properly while they lived in other countries. On the examples of the three municipalities in Bosnia and Herzegovina, it can be determined that education of pupils is not enough for the development or improvement of environmental awareness. Pupil’s indifference transfers later on to adults. People from these areas refuse to accept the environmental problem as the problem they can help solving, because they feel that they cannot achieve anything on their own and that is the problem of the country and government. Overall, college and education had a minimal impact in the development of environmental awareness, and are not sufficient for the population to act in solving problems regarding the environment, more precisely waste treatment.
Appendix 1: Questionnaire—questions

The first part

0. Gender and age.
1. The settlement where you currently live.
2. How long have you been living there?
3. Did you grow up in urban or rural environment?
4. What is the current status of your education?
5. Have you ever studied / worked abroad for a year or more?

The second part

6. How do you treat waste in your household?
7. Do you know how household waste treatment contributes to environmental pollution?
8. Do you ever talk about waste and its treatment in your household?

The third part

9. Would you be interested to participate in educative workshops that discuss the proper disposal of household waste?
10. What is the reason of your poor waste treatment?

Appendix 2: Questionnaire—question 10 answers (settlement, gender and age)

We are all in the family generally aware of the poor environmental situation and try to respect nature, but society is different. Rarely anyone talks about the environmental problems in the family, I guess people have their own problems so they can’t deal with the nature as well. Environmental awareness does not exist in Bijeljina at the city level, only at some individuals who are not sufficient to change the current situation. People complain about pollution, especially air, but no one is willing to change something in their behavior. I don’t even want to comment politicians (Bijeljina, male, 24).

I don’t know what to say. If they tell me to start to recycle I will, to do it on my own, I don’t know, I don’t want to look like a freak and to be a laughing stock. This is the problem of the city and the country, not mine (Bijeljina, male, 24).

The city should be cleaner, post-election posters should be removed and not held until the next election. We had a subject Ecology in college last year, I don’t exactly remember what we learned (Bijeljina, male, 21).

This is the situation in society, I would feel kind of stupid to start something, although I do think we should at least try to recycle, that is the easiest, other environmental problems are more difficult (Bijeljina, male, 24).

No one ever told me I should do that. If the competent institution addressed this issue, I’d be willing to adjust (Ugljevik, female, 22).
We have bigger problems in the country than to deal with waste. Everything larger than not throwing trash on the street is too much for this people (Bijeljina, male, 22).

The whole town is like that, nothing is regulated, garbage is everywhere, cigarette stubs are visible all over Janja, and I think only fines can solve it (Janja, male 24).

As in Switzerland where I worked, rigorous fines should be applied here as well, to my parents first, they burn trash and throw it in the river (Tutnjevac, male, 24).

My family burns garbage several times a year, I tried to explain to them many times that they should not be doing that, but they did not pay attention (Tutnjevac, female, 23).

Sometimes I’m ashamed of my society and neighbors because they regularly throw trash on the street (Patkovača, female, 24).

I am not sure if the people here are willing to accept something unless it is violently imposed (Janja, male, 21).

I go to college, I don’t do trash, that is not my profession (Dvorovi, female, 22).

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**Declarations**

**Conflict of interest**  The author declares there are no conflicts of interest.

**Ethics approval**  This research was conducted with the aim of improving environmental awareness on the area of Bosnia and Herzegovina. It does not mention anyone personally by name and surname. There were no risks for the participants during the research.

**Consent to participate**  Participation in research was voluntary and anonymous.

**Consent for publication**  All participants were explained the purpose for which their answers would be used.

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