

Article DOI: <http://doi.org/10.15544/RD.2017.046>

## **AN INDIVIDUAL LEVEL OF SOCIAL INNOVATIONS FOR RURAL DEVELOPMENT: AGGRESSION AMONG RURAL ADOLESCENTS**

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Social innovation is very important for rural development. It is a lack of researchers about an individual level of social innovations in Lithuania. Adolescents' aggression is an important social problem that can affect society and social innovations. It needs to find the differences in aggression between rural and urban adolescents because it could help to plan effective interventions for reducing aggressive behavior. The present study aimed to assess the aggression among rural and urban adolescents. It was hypothesized that rural and urban adolescents differ significantly on aggression. In order to verify the above hypothesis a sample of 479 (207 boys; 272 girls) students were selected from Lithuanian schools. The sample includes the similar size of rural (N=242) and urban (N=237) students. The age of participants was from 12 to 17. It was used Aggression Questionnaire developed by Buss and Perry (1992) in this research. The questionnaire involves four subscales: physical aggression, verbal aggression, anger, and hostility. The results showed that urban girls had more physical aggression than rural girls. However, it was not found statistically significant differences in physical aggression among urban and rural boys. Also, it was not found any statistically significant differences in verbal aggression, anger, hostility among urban and rural adolescents.

*Keywords: Adolescents, aggression, rural region, urban region*

### **INTRODUCTION**

Agriculture Committee of the Council of Europe believes that European rural areas are more than 85% of the continent and affect more than half of the European population (Chiritescu et al., 2015). Also, according to Rao et al. (2014), the development of rural areas in developing countries is the root of economic upliftment for these nations. One of the most important factors for rural development is social innovations (Neumeier, 2017).

Social innovation is attracting increasing attention in research and policy, heightened by continuing austerity across Europe (Bosworth et al., 2016). However, Lithuania still lacks the implementation of social innovation especially in rural areas (Greblikaite et al., 2017). According to Dobeles (2015), social innovation is a new innovation, sustainable and effective solution to pressing social problems in the society, and as a result of social innovation is created the social value. Social innovation is influenced by factors at the environmental, organizational, and individual levels (Dobeles, 2015). As reported by Neumier (2017), first of all, it is important to identify needs of a small group, for example, emotional needs. Hence, the individual level is very important for improving social innovation.

The contribution of the youth is essentially important in the development of rural areas (Rao et al., 2014). It is estimated that there is a real risk that, in the coming decades, the countries of Central and Eastern Europe to become a sparsely populated region with a declining labor force, forced to bear the burden of an aging population (Chiritescu, et al., 2015). Hence, it is important to focus on young people issues for helping to solve their problems and it is better to start from a younger age. This focus would have more benefits not only for a rural society but also, for individual level of social innovations.

Adolescence is the period of life from late childhood until physical growth is relatively complete and also marks the beginning of early adulthood. In that time, adolescents have to cope with their physical, social, psychological changes; that is why they have to face a lot of stressful situation such as family, school and peer group pressure which affect their life (Dey et al., 2014). Youth aggression is a major social problem that affects society as a whole. Previous researchers found that it was the differences between urban and rural adolescents in aggression level. Few findings revealed that the rural secondary students have more aggression than urban students of secondary school (Patil, 2016; Singht et al., 2017). However, according to another researcher, it was no significant difference in the mean scores of aggression among rural and urban adolescents (Kataria, 2016). Hence, the results of comparison of aggression among rural and urban adolescents are not clear. Also, previous researchers were made in abroad thus it is a need to do more research in this field in Lithuania. Aggressive behaviour is a major concern in most contemporary societies because it may inflict damage and harmful to

self or others and constitute a serious threat to the wellbeing of the community at large (Kaur et al., 2016). Hence, it is important to select and use effective intervention programs for reducing aggressive behavior in rural areas among adolescents. It is an assumption, that sold aggression problem in a rural region may impact more effective implementation of social innovation.

A research made in Lithuania showed that school-based intervention can significantly reduce aggressive behaviour (Normantaite et al., 2013). The authors of previous research claimed that urban adolescents were more aggressive than rural adolescents. However, the research was made only in an urban region of Lithuania. Also, according to Renfro et al (2003), future research should explore the quantity of violence in rural schools for improving aggression reduction programs (Renfo, et al, 2003). Hence, first of all, it is important to find if it is differences in quantity of aggression between rural and urban adolescents. After this knowledge, it would be easier to plan and select effective interventions for reducing aggressive behaviour for rural adolescents. Therefore, the goal of this research was to find the differences in aggression between rural and urban adolescents. The hypotheses: urban adolescents use more physical aggression than rural adolescents; urban adolescents use more verbal aggression than rural adolescents; urban adolescents are angrier than rural adolescents; urban adolescents are more hostile than rural adolescents.

## METHODS

### Participants and procedure

479 school pupils (207 boys; 272 girls), aged between 12 and 17, participated in this investigation. 237 students were from Kaunas city, 242 students were from Kaunas and Siauliai districts. The characteristics of participants are provided in Table 1.

Table 1. The characteristics of participants

Region	Gender	
	Boys	Girls
Urban	102	135
Rural	105	137

Participants have been chosen by convenience, but they all participated voluntarily and with their schools' and parents' permissions. The questionnaire was taken collectively in each course during a normal class day.

### Psychometric measures

In the measurement of aggressive behavior, Buss and Perry's Aggression Questionnaire (1992) was used in this research. This questionnaire is one of the most used instruments to assess aggression (Reyna et al., 2011). A double translation from English to Lithuanian and back in English has been provided by D. Normantaite and L. Normantiene (Normantaite et al., 2013).

The scale consists of 29 statements grouped into 4 factors: physical aggression, verbal aggression, anger, and hostility. Participants were asked to rate each item using a 5-point Likert-type scale (1 = extremely uncharacteristic of me; 2 = somewhat uncharacteristic of me; 3 = neither uncharacteristic nor characteristic of me; 4 = somewhat characteristic of me; 5 = extremely characteristic of me). The more points are gathered, the more of a particular feature is characteristic to the respondent. The reliability of scales in this research is provided in Table 2.

Table 2. The reliability of Aggression questionnaire

Scale	Cronbach alpha
Physical aggression	0.829
Verbal aggression	0.679
Anger	0.657
Hostility	0.837

## RESULTS

Before statistical analysis, normal distribution was evaluated. The dependent variables were normally distributed. An independent-samples t-test was conducted to compare aggression variables in rural and urban regions among boys (Table 3) and girls (Table 4).

Table 3. Results of t-test and descriptive statistics for aggression by regions among boys

	Region				95% CI for mean difference	t	df
	Urban, N=102		Rural, N=105				
	M	SD	M	SD			
Physical aggression	20.9	7.4	20.3	8.2	-1.61, 2.68	0.486	205
Verbal aggression	12.8	4	12.7	4.6	-1.1, 1.26	0.134	205
Anger	15	5	15.1	5.6	-1.56, 1.34	-0.144	205
Hostility	18.5	7.1	18.8	7.6	-2.41, 1.62	-.387	205

There were no significant differences in the scores of physical aggression, verbal aggression, anger, hostility in urban and rural regions among boys. These results suggest that regions do not have an effect on aggression among boys.

Table 4. Results of t-test and descriptive statistics for aggression by regions among girls

	Region				95% CI for mean difference	t	df
	Urban, N=102		Rural, N=105				
	M	SD	M	SD			
Physical aggression	18.8	6.9	16.8	7	.34, 3.65	2.38*	270
Verbal aggression	13	3.9	13.2	4.2	-1.18, .76	-0.427	270
Anger	16	4.5	15.6	4.8	-0.72, 1.51	0.695	270
Hostility	20.6	6.6	19.8	7.4	-0.84, 2.5	0.978	270

\* p < 0.05

There was a significant difference in the scores of physical aggression in urban (M=18.8, SD=6.9) and rural (M=16.8, SD=7) regions among girls; t (270) = 2.38, p = .018. These results suggest that the scores of physical aggression were higher in urban region compared with rural region among girls. However, there were not any significant differences in the scores of verbal aggression, anger, hostility in urban and rural regions among girls.

## DISCUSSION

The goal of this research was to find the differences in aggression between rural and urban adolescents. It was hypothesized that rural and urban adolescents differ significantly on aggression. However, the hypothesis was confirmed only with physical aggression among girls. The research showed that urban girls had more physical aggression than rural girls. The similar results were found in previous study that adolescents from urban areas experienced aggression more often compared with adolescents from rural areas (Pruskus et al., 2011). The differences of physical aggression in rural and urban regions among girls could be explained by the importance of social support for adolescents. It was found that aggression had negative relationship with social support (Bibi et al., 2016). Rural areas have more limited number of the sources of social support than urban areas. Hence, it is possibility that girls from rural areas want to save the social support and their control their aggression more often than girls from urban regions. Other explanation of this finding could be related to the different level of sensitivity among rural and urban girls. According to Pruskus et al. (2011), the students of rural area are more sensitive in behavior observation in class compared with urban students. Hence, it could be that girls from rural areas control their aggressive behavior because of seeking to avoid the observation of behavior in class. It is a possibility that girls from urban do not control their aggressive behavior because they are not so sensitive to behavior observation in class.

However, it was not found statistical significant differences in physical aggression among urban and rural boys. Also, there were not any significant differences in the scores of verbal aggression, anger, hostility in urban and rural regions among girls and boys. The different results were found in previous studies. The research found no significant difference in aggression of adolescents in relation to their rural and urban background (Kaur et al., 2016). Also, the findings of the study reveals that the rural secondary students have more aggression than urban students of secondary school (Patil, 2016). The contrasting results could be explained by situation in different countries. The previous researches were made in India. According to Das et al. (2012), it is a wide gap between rural and urban India with respect to technology, living condition, economic empowerment etc. Lithuanian urban and rural regions are more similar compared with India. Hence, the differences of countries situations might impact the results.

The research had several limitations. The first limitation is that the participants were chosen according to convenience; therefore the results cannot be applied to whole population of adolescents. In order to avoid such limitations in the future, participants should be chosen at random order. The other limitation is that aggression was assessed by using self-reported measures; hence posing a threat of common variance method. Future studies have include parents, peers, or teacher rating instruments to avoid this limitation.

Aggressive behavior plays an important role of adolescents lives. The problems related with aggression might impact not only aggressor but also society, social innovations etc. The results of this research showed that there were not differences in verbal aggression, anger, hostility among rural and urban adolescents. Hence, the same interventions for aggression reducing could be used for urban and rural regions. For the better understanding the future researches have to compare the aggression changes after intervention between rural and urban adolescents.

## CONCLUSION

- The results showed that urban girls had more physical aggression than rural girls. However, it was not found statistical significant differences in physical aggression among urban and rural boys.
- There were not any significant differences in the scores of verbal aggression, anger, hostility in urban and rural regions among girls and boys.

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