EVALUATION OF EFFECTIVENESS OF PSYCHOACTIVE
SUBSTANCE ABUSE PREVENTION PROGRAM “MY WAY”:
TRANSFORMATIONS IN THE 9TH-12TH GRADES PUPILS’
PERCEPTIONS ABOUT PSYCHOACTIVE SUBSTANCE USE

Sandra VALANTIEJIENĖ 1,*, Regina SAVELJEVA 2

1Institute of Education Science and Social Work, Mykolas Romeris University, Ateities str. 20,
LT-08303, Vilnius, Lithuania
2Faculty of Social and Humanities Sciences, Klaipėda University, Herkaus Manto str. 84,
92294, Klaipėda, Lithuania

Abstract. Purpose – The purpose of the article is to describe the transformations in the perceptions of the consequences of the use of psychoactive substances between 9-12th grades pupils in the context of the implementation of the psychoactive substances abuse prevention program “My Way”. Research methodology – the authors performed a quasi-experiment and according to the methodological requirements related to the use of such scientific method in the educology studies, used an unequal control group and the primary/initial (pre-test) as well as final (post-test) measurements to achieve the aim of the research/article. Findings – the data of the quasi-experiment research showed that as the whole after intervention the pupil’s perceptions about the use of psychoactive substances in the experimental group has changed; the pupils who were assigned to the control group assessed the effects of the use of psychoactive substances better than those who were assigned to the control group. Research limitations – during the implementation of the program and the experiment, the activities related to the quasi-experiment were held only by social pedagogues in certain selected schools and classes (considering various factors such as the behaviour of children or their attributability to the families at social risk). Accordingly, in the next similar studies, children can be sampled evenly, without differentiating them based on their behavioural problems. Practical implications – the results of the research could be used in practice in the following ways: (i) by motivating the schools of general education in the Republic of Lithuania to choose prevention programs as the purposeful and meaningful instrument to develop healthy life skills; (ii) to develop and expand the range of new prevention programs based on the experience of the program “My Way” which is presented and evaluated in this article. Originality/Value – there are no similar previous educological and other educational science studies (in Lithuania) how the pupils’ attitudes change during the pre-planned and systematically implemented preventive activities in general education schools; the article presents and outlines the experience and practice of the first such Lithuanian program for the prevention of psychoactive substance abuse (“My Way”).

Keywords: psychoactive substances, effectiveness, prevention, pupils, general education.

JEL Classification: I21, I28, I29.

*Corresponding author. E-mail: valantiejiene@gmail.com
Introduction

The prevention of psychoactive substances abuse is directed towards certain target groups to which it is designed and, accordingly, the prevention activities are traditionally divided into general, selective and targeted prevention (Gordon, 1987). Measures of general prevention are usually directed towards all pupils who are attending schools, and they are aimed at avoiding the occurrence of a certain social problem. In the context of psychoactive substances abuse prevention such general prevention measures are commonly perceived as the providing of knowledge about the harm and effects of the use of psychoactive substances, the formation of negative attitudes toward them and the development of certain life skills (Bulotaitė, 2004; Fong, Hammond, & Hitchman, 2009). Meanwhile, selective prevention is applied to vulnerable people who, because of poor social relations, may be more likely to start using or may become dependent on psychoactive substances (Bankauskiene, 2013). Finally, targeted prevention usually applies to those who already have shown manifestations of problematic behaviour but do not yet have signs of addiction (ENNSC, 2009; Brotherhood & Sumnall, 2011). The United Nations Convention on the Rights of the Child, the European Union’s (EU’s) documents and national law of EU Member States recognize that the school is at the forefront of the general prevention directed towards all children. Therefore, this is the reason why preventive activities, as well as special prevention programs, are being developed for use in the school environment, organized and implemented in schools.

Various studies which were carried out among the population in the Republic of Lithuania, including school children, indicate that the use of psychoactive substances among school-age children is slightly decreasing (The prevalence of psychoactive substances in Lithuania in years, 2004, 2008 and 2012; ESPAD Report, 2015). The report which was issued by the Department of Drugs, Tobacco and Alcohol Control under the Government of the Republic of Lithuania (2013) states that the consumption of tobacco in the age group of 15–17 years-olds during the period of 2004–2012 years was decreasing, for example, the percentage of children which used tobacco at least once the lifetime has decreased from 60.7% (in 2004) to 37.7%. (in 2012); the percentage of children which used tobacco at least once during the last 12 months – declined from 21.5% (in 2004) to 11.9% (in 2012) and percentage of children which used tobacco at least once during the last 30 days fell from 17.3% (in 2004) to 11.9% (in 2012). The consumption of alcoholic beverages in this age group is also decreasing, for example, the percentage of children which consumed alcohol at least once during the last 12 months has decreased from 65.8% (in 2004) to 38.6% (in 2012), during the last 30 days – decreased from 43.6%. (in 2004) to 27.1% (in 2012). Consumption of drugs is also slightly decreasing, for example, the percentage of children which used drugs at least once during their lifetime decreased from 9.5% (in 2004) to 5.9 percent (in 2012), during the last 12 months – fell from 5.7% (in 2004) to 5.3% (in 2012), however, the percentage of children who used drugs during the period of the last 30 days has insignificantly increased – from 1.5% (2004) to 2.1% (in 2012).

According to the data provided in the European Schools Project on Alcohol and other Drugs study, which was carried out in 2015 (ESPAD Report, 2015), in the Republic of Lithuania, 35 per cent of school children of 9'th grade were non-smokers (i.e., they never tried
to smoke in their whole life). However, about 45 per cent of schoolchildren aged 13 and younger have tried to smoke cigarettes for the first time in their life. In this age cohort, 9 per cent of boys and 5 per cent of girls started to smoke regularly. Besides, only 13% per cent of respondents, which participated in the study, have never used alcohol in their life. 34% of the respondents also indicated that they used alcohol at least once during 30 days before the survey. Thirty per cent of respondents also stated that they have been under the influence of alcohol for the first time after they reached the age of 14 or even higher age groups. 19.2 per cent of the pupils surveyed have indicated that they tried some illicit drugs at least 1–2 times in their lives. The data from this study also suggests that the pupils have tried to use a majority of both legal and illegal drugs for the first time in their life at the age of 14–15 years.

As it follows from the circumstances discussed above, indicators which are describing the use of psychoactive substances and its transformations show that the overall direction of these processes is positive and indicates the decline in the numbers of substance abuse among children. However, it must be emphasized that the perception of the risk of use of psychoactive substances has changed negatively. For example, a comparison of the ESPAD 2007, 2011, and 2015 survey data shows a negative trend – a decrease in the assessment of the dangers of risks associated with drug abuse and smoking. It should be emphasized that the assessment of risks associated with the use of cannabis has decreased, for example, the fact that “people are at a high risk” when they sometimes smoke cannabis was stated by 50.5% respondents in 2007, while in 2011 such number was 52% and in 2015 such number was only 37.4% of 9’th grade students. The assessment of risks associated with irregular smoking has not changed much while the risk assessment of intensive smoking (smoking one or two packages per day and the related risks of self-harm) has changed a little (the percentage of pupils which stated that the risk of such smoking is very significant was 66% in 2011 and 55% in 2015).

The facts mentioned above confirm the necessity of further prevention of the use of psychoactive substances in general education schools. The need to evaluate the effectiveness of the program “My Way” can be justified by the following circumstances. Firstly, psychoactive substance abuse prevention program “My Way” is the first such specific Lithuanian program which is being implemented from 2014 (Bankauskienė, Dragunevičius, Gedminienė, Sirtautaitė, & Valantiejienė, 2015). Secondly, formal evaluation of other already mentioned studies (ESPAD Report, 2015; Department of Drugs, Tobacco and Alcohol Control, 2013) leads to the primary conclusion that the assessment of risks related to the use of psychoactive substances is in Lithuania decreasing. Therefore, in the context of this research, such an evaluation will focus on the impact of the prevention program on the perceptions (understandings) of the psychoactive substance use consequences among the pupils. Respectively, the object of the research presented in this article was chosen and can be formulated as the perception of the consequences of the use of psychoactive substances among 9-12’th grade pupils. The chosen object of the research also determines the goal of this article – to describe the transformations in the perceptions of the consequences of the use of psychoactive substances between 9-12’th grades pupils in the context of the implementation of the psychoactive substances abuse prevention program “My Way”. To achieve the above-mentioned goal, the following research objectives were formulated: 1. To evaluate the effectiveness of the program “My Way” on the basis of perceptions of the consequences of the use of psychoactive
substances between pupils studying in general education schools in the Republic of Lithuania; 2. To perform the pedagogical quasi-experiment to describe the transformations of perceptions about the use of psychoactive substances in the control (CG) and experimental (EG) group of pupils, which participated in the prevention program “My Way”, and to compare the differences of between these two groups. The problematic research question was chosen as follows: what is the impact of the prevention programme to the perceptions of psychoactive substance use between pupils of 9th and 12th grades? Quantitative research methods were selected to analyse the problematic question of the study. It was also decided to perform a quasi-experiment using an unequal control group and the primary/initial (pre-test) as well as final (post-test) measurements to achieve the goal of the research.

1. Theoretical framework

According to Liepinytė-Medeikė (2008), implementation of the prevention of the use of psychoactive substances between the pupils of 13–15 years-old must include such elements as providing enough information which could enable them to choose the right decisions. Based on these theoretical assumptions, the authors would like to emphasize that adolescents must understand why smoking is prohibited or restricted, they also should receive help to choose meaningful forms of leisure, develop a critical attitude to harmful behaviours. Besides, adolescents of this age must understand how tobacco affects the body, what are the harms of long-term smoking, what the physical and mental dependence from tobacco means, how its consumption affects certain human behaviour. Therefore, it is possible to distinguish the criteria of an effective prevention program by taking into account such factors as its proper scientific theoretical justification, the validity of its goals and objectives, the purposefulness of the program content, the directionality, consistency and impact assessment of the program results (see Nation et al., 2003; Haddix, Teutsch, & Corso, 2003; Springer et al., 2004; Small, Cooney, & O’Connor, 2009; Brotherhood & Sumnall, 2011). Consequently, the first Lithuanian program for the prevention of psychoactive substance abuse (“My Way”) was prepared to ensure purposeful and consistent work of preventing the use of psychoactive substances (Bankauskiene et al., 2015). It was started to be implemented in 2014 at Panevėžys (one of the largest towns in Lithuania) city and district schools.

The program for the prevention of the abuse of the psychoactive substances “My Way” has been based on research studies that indicate that prevention programs for psychoactive substances must strengthen “protective factors” and weaken “risk factors” (Sloboda, 2012). Scientific literature indicates that such programs which are implemented in schools also must develop common life skills, including those that help to resist suggestions related to the use of psychoactive substances, also helps to formulate negative attitudes towards the use of such substances, increases self-confidence, develop social competencies to communicate with peers (Bulotaitė, 2004; Sharma, 2007). According to the above-mentioned studies, the program “My Way” considers theoretical suggestions that prevention programs for children and adolescents must be based on interactive methods that promote their development, combine information about psychoactive substances with methods of forming certain behaviour and system of thinking (so-called “real values system”) and should use active educational
The use of active learning methods in the educational process enables to develop the cognitive abilities of children, as well as to ensure the change of attitudes, values, and expectations about learning. Consequently, the use of active learning methods helps to form the understanding that learning is a process and not simply memorizing of facts or knowledge and that the knowledge and attitudes which are acquired gradually, in a systematic way remain in one's memory for a longer period. Besides, such learning methods improve the motivation of pupils for independent, self-regulating learning at the same time they also increase confidence in oneself and the negative provisions about the use of psychoactive substances as well as perceptions of its consequences (Wilke, 2003).

Also, according to Uhl and Ives (2010), proper selection of appropriate psychoactive substance abuse prevention methods enables the children and young people to postpone the use of psychoactive substances for the elder age. It also helps them to assess the risks associated with the use of psychoactive substances, perceive the consequences of using psychoactive substances. Besides, it gives the opportunity to learn to decide and be responsible for their choices as well as to know where to get help when they encounter problems and to have skills how to help others.

2. Methodology

2.1. Research design

As it was mentioned in the introduction, the authors performed a quasi-experiment and according to the methodological requirements related to the use of such scientific method in the educology studies (Green, Camilli, & Elmore, 2006; Wiersma & Jurs, 2009), used an unequal control group and the primary/initial (pre-test) as well as final (post-test) measurements to achieve the goal of the research. The essential features of this type of quasi-experiment are as follows: the study takes place using two non-random groups (experimental and control group); manipulation with the independent variable takes place only in the experimental group; measurements are performed in the experimental and control groups before and after the manipulation of the independent variable. The group is evaluated as inequivalent if the attribution of the investigated subjects to the group is not accidental (Rupšienė & Rutkienė, 2016; Rupšienė, 2015); since the assignment to the control group of this quasi-experiment was accidental, this group can be evaluated as inequivalent.

The program of quasi-experiment was implemented in the school years from 2014 to 2018 at eight general education schools in the Panevėžys region (situated in the Republic of Lithuania). The control group consisted of 8 pupils selected from 9-12 grades of general education schools in Panevėžys region. Initial measurement took place in October of 2014 while the final measurement took place in May of 2015 (in control and experimental groups). Additional data was collected in May and October of 2017 in experimental groups.

2.2. Research instrument

The post-experimental measurement instrument was developed and based on the results of the theoretical analysis of the effects of the psychoactive substances use on the behaviour
of pupils studying in 9’th-12’th grades (Bankauskienė et al., 2015) and the “Model for Drug Use Prevention in European Secondary Schools” created by Dobson and Wright (1995). A closed-ended questionnaire consisting of three parts: instruction, a section of demographic variables, and the main section of diagnostic (constructive) variables – was also prepared.

The Likert-type “Perception of psychoactive substance use” scale was designed to determine the respondents’ opinion about the effects and consequences of the use of psychoactive substances on their peers. The scale consisted of 3 sub-scales – the sub-scale of perceptions about the consequences of smoking, sub-scale of perceptions about the consequences of alcohol use and sub-scale of perceptions about the consequences of drug use.

While answering the questionnaire respondents had to use a 4-point scale to assess the consequences of smoking, alcohol and drug use for their peers (1 – not possible, 2 – unlikely, 3 – probable, 4 – very likely).

After the assessment of the reliability of the scale it was found that Cronbach’s alpha coefficient was 0.943 (slightly lower in individual sub-scales but sufficiently high (Rupšienė & Rutkienė, 2016; Rupšienė, 2015): 0.869 in the sub-scale of perceptions about consequences of smoking, 0.890 in the sub-scale of perceptions about consequences of alcohol and 0.928 in the sub-scale of perceptions about consequences of drug use. It was calculated that premove-ment of one variable from any sub-scales would increase the Cronbach’s alpha coefficients slightly. Also, there was not a single variable which resolution of r/iit was less than 0.2. Con-sidering what was mentioned above, it can be argued that the scale and all sub-scales are characterized by internal coherence and are suitable measurement instruments.

2.3. Research sample

Certain methodological recommendations were considered as a basis for the creation of a research sample. Sources or the methodological literature set a strict requirement for the sample of a real experiment: experimental and control groups must be formed randomly (Bitinas, 2006; Cohen, Manion, & Morrison, 2008; Rupšienė & Rutkienė, 2016). The main difference between the quasi-experiment and the actual experiment is that the study sample and its distribution into groups are not random, i.e., the distribution to the groups is not coincidental but is carried out in other ways (Cohen et al., 2008). In education practice, pre-formed groups (Creswell, 2012), such as classes, teams, schools, are commonly used for such purpose and this fact was considered by forming EG and CG groups which participated in the quasi-experiment. The pupils of 9’th-12’th grades, attending general education schools in Panevėžys region, have been selected as the participants of the quasi-experiment.

The selection of participants was based on an analysis of the Education Management Information System data about the implementation of preventive programs. During the selection process, the authors also considered the fact, that the analysis of this data leads to the conclusion that in this region, compared with other regions of Lithuania, very few prevention programs are being implemented. In this context, only those schools that have never implemented any prevention program have been selected for a quasi-experiment. Besides, the choice of schools for the quasi-experiment was also based on the condition that these schools also must use a certain provision in the learning agreements with pupils and/or their legal repre-
sentatives according to which it is possible to implement prevention programs and complete research related to the implementation of these programs in the school. The selection of the sample was subject to several rules. Firstly, the choice of experimental and control groups considered the requirement (Kardelis, 2007) that the minimum number of cases in the control and experimental group should not be less than 30. Secondly, after having selected the control group in a convenient way, the conditions for all pupils in this group to participate in the initial and final measurement were created. Finally, in total, 269 pupils participated in the experimental and control groups: EG included 172 students and CG – 97 pupils. One of the requirements, which were applied to this research, was to ensure that pupil participation in the research and the information provided by them should not be used against them or passed on to other, third parties. To implement the principle of voluntary participation, before conducting the research, firstly, the agreements of the school leaders to interview 9-12 class pupils and their parents’ (guardians) written permission to participate in the research were acquired. Besides, in order to implement the anonymity principle, the questionnaires indicated that the participant does not need to write his or her first name or surname. The same circumstance was also indicated during the submission of questionnaires. The questionnaires were also filled out by the investigators themselves and collected back not by the researcher himself; the questionnaires were not forwarded to the representatives of the school administrations.

2.4. The program of the quasi-experiment

The program of quasi-experiment was based on the results of the theoretical analysis of the effects of the use of psychoactive substances on the behaviour of pupils in general education schools. Participants of the experimental group were given the opportunity to acquire knowledge about the consequences of the use of psychoactive substances in the learning process. One of the authors of the article (Sandra Valantiejienė) introduced and trained the social pedagogues of the schools which participated in the experiment how to implement the psychoactive substance use prevention program “My Way” and to prevent the use of psychoactive substances. During the process of implementation of the psychoactive substance use prevention program “My Way” 12 sessions for 9’th, 10’th, 11’th and 12’th grade pupils were organized. Ten sessions were completed during the special classroom hours (as separate activities), and two sessions were integrated into the lessons of ethics and biology. The program was implemented by the general ethical principles and requirements of the educational process. Sessions for pupils were organized by the social pedagogues who were working in the participating schools. The program was implemented in 8 schools which participated in the experiment and only in the 9’th-12’th grades. The experimental group consisted of 172 pupils, while the control group consisted of 97 pupils.

2.5. Data analysis methods

Firstly, a set of several derived variables was formed: 1) the derived variable of the scale of Perceptions about the use of psychoactive substances; 2) the derived variable of the first sub-scale belonging to the above-mentioned scale (the Perceptions about consequences of smoking); 3) the derived variable of the second sub-scale belonging to the above-mentioned
scale (the Perceptions about the consequences of alcohol consumption); 4) the derived variable of the third sub-scale belonging to the above-mentioned scale (the Perceptions about the consequences of drug use).

Since the objective of the research was to compare the differences between EG and CG, the statistical assumptions were checked to determine the methodology which was used for calculating the differences. The Kolmogorov-Smirnov criteria have been used to verify the normality of distributions. Since all the derived variables were distributed according to the normal law ($p > \alpha = 0.05$), the independent group \( t \) criterion was used to determine the intergroup differences (Rupšienė & Rutkienė, 2016).

2.6. Research limitations

The implementation of the quasi-experimental program was related to certain conditions and limitations of the pedagogical experiment, among which, firstly, it is necessary to mention the limitations related to the management of the experiment’s system. The education of pupils in general education schools depends on the activities of many teachers, which are not always mutually compatible. During the implementation of the program and the experiment, the activities of all the teachers were not combined and not all of them were included in the scope of the study. The sessions related to the quasi-experiment were held only by social pedagogues in certain selected schools. Also, the consequences of capturing the accuracy of an experiment result should also be mentioned. Firstly, it is not possible to isolate the result of the experiment in question from the other experiments and to determine if the desired result is the result of the quasi-experimental program which was applied. Secondly, this result may have been influenced by the factors which are uncontrollable to the experimenter (e.g., by other supplementary general education programs which were implemented in general education schools; experience outside the school; family-related factors). Attention must be drawn to the fact that in some cases the EG and CG group differed in the primary/initial (pre-test) measurement, as social pedagogues, who organized sessions for children, selected such classes for EG which had more children with behavioural problems, and which grew up in social risk families. The results of the research must be interpreted with caution because the respondents have evaluated the consequences of the use of psychoactive substances themselves, therefore, the results of the research mostly reflect their perceptions and can be regarded as subjective in this aspect. It is also necessary to mention that the empirical study included only schools of general education in the Panevėžys region.

3. Results of the research and their interpretation

3.1. The authors’ assessment of the perceptions about the consequences of psychoactive substance uses in experimental and control groups

The statistically significant differences were detected after the researchers completed the analysis of the changes of indicators belonging to the scale of Perceptions about the use of psychoactive substances in the experimental and control groups before and after the quasi-experiment (see Table 1). By applying the independent criteria \( t \), it was found that
after the intervention, the pupils belonging to the EG segment evaluated the effects of the use of psychoactive substances more adequately than pupils belonging to the CG segment.

### 3.2. The authors’ assessment of perceptions about the consequences of smoking in experimental and control groups

After the analysis of the changes of indicators describing experimental and control groups, statistically, significant differences were also detected in the sub-scale of the Perceptions about the consequences of smoking (both before and after the quasi-experiment; see Table 2). By applying the independent t criterion, it was found that before the intervention, the pupils belonging to the EG segment assessed the effects of smoking better than pupils belonging to the CG group.

#### Table 2. Changes of indicators describing the sub-scale of Perceptions about the consequences of smoking during the time of quasi-experiment (source: author’s compilation)

<table>
<thead>
<tr>
<th>Group</th>
<th>CG</th>
<th>EG</th>
<th>Avg. differences</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before the experiment</td>
<td>2.66</td>
<td>2.55</td>
<td>0.11</td>
<td>2.021</td>
<td>215</td>
<td>0.045</td>
</tr>
<tr>
<td>After the experiment</td>
<td>2.69</td>
<td>2.52</td>
<td>0.17</td>
<td>2.095</td>
<td>90.673</td>
<td>0.039</td>
</tr>
</tbody>
</table>

After the comparison how the variables of the analyzed sub-scale changed both in the experimental and control groups, it was found that in the experimental group before the quasi-experiment there were statistically significant differences between CG and EG regarding two variables (see Table 3): *Will suffer from a shortage of money; Will acquire more friends.*

#### Table 3. Changes of the variables belonging to the sub-scale of Perceptions about the consequences of smoking during the time of quasi-experiment (source: author’s compilation)

<table>
<thead>
<tr>
<th>Sub-scale variables</th>
<th>Group/Segment</th>
<th>CG</th>
<th>EG</th>
<th>Mean differences (differences of averages)</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Will have troubles with the police</td>
<td>Before the experiment</td>
<td>2.41</td>
<td>2.39</td>
<td>0.02</td>
<td>0.199</td>
<td>215</td>
<td>0.842</td>
</tr>
<tr>
<td></td>
<td>After the experiment</td>
<td>2.61</td>
<td>2.47</td>
<td>0.14</td>
<td>1.037</td>
<td>192</td>
<td>0.301</td>
</tr>
<tr>
<td>Will succeed worse at school</td>
<td>Before the experiment</td>
<td>2.40</td>
<td>2.32</td>
<td>0.08</td>
<td>0.721</td>
<td>215</td>
<td>0.472</td>
</tr>
<tr>
<td></td>
<td>After the experiment</td>
<td>2.49</td>
<td>2.27</td>
<td>0.22</td>
<td>1.785</td>
<td>192</td>
<td>0.760</td>
</tr>
<tr>
<td>The relations with parents will become worse</td>
<td>Before the experiment</td>
<td>2.82</td>
<td>2.66</td>
<td>0.16</td>
<td>1.508</td>
<td>215</td>
<td>0.133</td>
</tr>
<tr>
<td></td>
<td>After the experiment</td>
<td>2.76</td>
<td>2.67</td>
<td>0.09</td>
<td>0.717</td>
<td>192</td>
<td>0.474</td>
</tr>
</tbody>
</table>
After the quasi-experiment, in all other cases, the indicators of perception of smoking describing the sub-scale of the Perceptions about consequences of smoking has changed (in the experimental group), but the changes were statistically insignificant.

### 3.3. The author’s assessment of the perceptions of alcohol consumption consequences in experimental and control groups

Statistically significant differences were detected after the analysis of the changes of indicators describing both the perceptions in experimental and control groups (considering the sub-scale of Perceptions about the consequences of alcohol consumption) both before and after the quasi-experiment (see Table 4). By applying the independent t criterion, it was found that after the intervention, pupils belonging to the EG segment understood and estimated the consequences of alcohol consumption better than CG students.

After the quasi-experiment, the authors discovered and detected statistically significant differences of indicators which describe the variables “Will feel better”; “Will become more popular”; “Will forget his/her troubles” (both in the CG and EG segments).
Table 4. Changes of indicators describing the sub-scale of Perceptions about the consequences of drug use during the time of quasi-experiment (source: author’s compilation)

<table>
<thead>
<tr>
<th>Group</th>
<th>CG</th>
<th>EG</th>
<th>Avg. differences</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before the experiment</td>
<td>2.57</td>
<td>2.53</td>
<td>0.04</td>
<td>0.691</td>
<td>215</td>
<td>0.490</td>
</tr>
<tr>
<td>After the experiment</td>
<td>2.61</td>
<td>2.42</td>
<td>0.19</td>
<td>2.312</td>
<td>192</td>
<td>0.022</td>
</tr>
</tbody>
</table>

Table 5. Changes of indicators describing the sub-scale of Perceptions about the consequences of alcohol consumption during the time of quasi-experiment (source: author's compilation)

<table>
<thead>
<tr>
<th>Sub-scale variables</th>
<th>Group/Segment</th>
<th>CG</th>
<th>EG</th>
<th>Mean differences (differences of averages)</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Will have troubles with the police</td>
<td>Before the experiment</td>
<td>2.89</td>
<td>2.87</td>
<td>0.02</td>
<td>0.205</td>
<td>215</td>
<td>0.838</td>
</tr>
<tr>
<td></td>
<td>After the experiment</td>
<td>2.93</td>
<td>2.99</td>
<td>−0.06</td>
<td>−0.459</td>
<td>151</td>
<td>0.647</td>
</tr>
<tr>
<td>Will succeed worse at school</td>
<td>Before the experiment</td>
<td>2.87</td>
<td>2.88</td>
<td>−0.01</td>
<td>−0.134</td>
<td>215</td>
<td>0.894</td>
</tr>
<tr>
<td></td>
<td>After the experiment</td>
<td>2.93</td>
<td>2.71</td>
<td>0.22</td>
<td>1.725</td>
<td>192</td>
<td>0.086</td>
</tr>
<tr>
<td>The relations with parents will become worse</td>
<td>Before the experiment</td>
<td>2.99</td>
<td>3.00</td>
<td>−0.01</td>
<td>−0.093</td>
<td>215</td>
<td>0.926</td>
</tr>
<tr>
<td></td>
<td>After the experiment</td>
<td>3.00</td>
<td>2.87</td>
<td>0.13</td>
<td>1.024</td>
<td>192</td>
<td>0.307</td>
</tr>
<tr>
<td>Will be removed from school</td>
<td>Before the experiment</td>
<td>2.54</td>
<td>2.64</td>
<td>−0.10</td>
<td>−0.776</td>
<td>215</td>
<td>0.439</td>
</tr>
<tr>
<td></td>
<td>After the experiment</td>
<td>2.63</td>
<td>2.43</td>
<td>0.20</td>
<td>1.391</td>
<td>192</td>
<td>0.166</td>
</tr>
<tr>
<td>The relationships with friends will become worse</td>
<td>Before the experiment</td>
<td>2.42</td>
<td>2.49</td>
<td>−0.07</td>
<td>−0.603</td>
<td>215</td>
<td>0.547</td>
</tr>
<tr>
<td></td>
<td>After the experiment</td>
<td>2.51</td>
<td>2.32</td>
<td>0.19</td>
<td>1.552</td>
<td>192</td>
<td>0.122</td>
</tr>
<tr>
<td>Addiction will develop</td>
<td>Before the experiment</td>
<td>2.81</td>
<td>2.85</td>
<td>−0.04</td>
<td>−0.357</td>
<td>215</td>
<td>0.721</td>
</tr>
<tr>
<td></td>
<td>After the experiment</td>
<td>2.83</td>
<td>2.84</td>
<td>−0.01</td>
<td>−0.051</td>
<td>192</td>
<td>0.959</td>
</tr>
<tr>
<td>Will suffer from a shortage of money</td>
<td>Before the experiment</td>
<td>3.18</td>
<td>3.10</td>
<td>0.08</td>
<td>0.795</td>
<td>215</td>
<td>0.428</td>
</tr>
<tr>
<td></td>
<td>After the experiment</td>
<td>3.10</td>
<td>3.00</td>
<td>0.10</td>
<td>0.763</td>
<td>92,327</td>
<td>0.448</td>
</tr>
<tr>
<td>Will acquire more friends</td>
<td>Before the experiment</td>
<td>2.42</td>
<td>2.24</td>
<td>0.18</td>
<td>1.656</td>
<td>215</td>
<td>0.099</td>
</tr>
<tr>
<td></td>
<td>After the experiment</td>
<td>2.36</td>
<td>2.24</td>
<td>0.12</td>
<td>1.007</td>
<td>192</td>
<td>0.315</td>
</tr>
<tr>
<td>Will feel better</td>
<td>Before the experiment</td>
<td>2.31</td>
<td>2.18</td>
<td>0.13</td>
<td>1.137</td>
<td>215</td>
<td>0.257</td>
</tr>
<tr>
<td></td>
<td>After the experiment</td>
<td>2.37</td>
<td>2.07</td>
<td>0.30</td>
<td>2.501</td>
<td>192</td>
<td>0.013</td>
</tr>
<tr>
<td>Will become more popular</td>
<td>Before the experiment</td>
<td>2.20</td>
<td>2.07</td>
<td>0.13</td>
<td>1.229</td>
<td>215</td>
<td>0.221</td>
</tr>
<tr>
<td></td>
<td>After the experiment</td>
<td>2.22</td>
<td>1.96</td>
<td>0.26</td>
<td>1.997</td>
<td>192</td>
<td>0.047</td>
</tr>
<tr>
<td>Will forget his/her troubles</td>
<td>Before the experiment</td>
<td>2.31</td>
<td>2.22</td>
<td>0.09</td>
<td>0.738</td>
<td>215</td>
<td>0.462</td>
</tr>
<tr>
<td></td>
<td>After the experiment</td>
<td>2.42</td>
<td>2.10</td>
<td>0.32</td>
<td>2.410</td>
<td>192</td>
<td>0.017</td>
</tr>
<tr>
<td>Will be more communicative and more confident</td>
<td>Before the experiment</td>
<td>2.24</td>
<td>2.13</td>
<td>0.12</td>
<td>1.053</td>
<td>215</td>
<td>0.294</td>
</tr>
<tr>
<td></td>
<td>After the experiment</td>
<td>2.31</td>
<td>2.06</td>
<td>0.25</td>
<td>1.899</td>
<td>192</td>
<td>0.059</td>
</tr>
</tbody>
</table>

In all other cases, the indicators of the sub-scale of Perceptions about consequences of alcohol use has changed in the experimental group after the quasi-experiment, but the changes were statistically insignificant (see Table 5).
3.4. The author’s evaluation of the perceptions about the use of drugs in experimental and control groups

Statistically, significant differences were detected during the investigation on how the indicators of the sub-scale of drug use perception consequences in the experimental and control groups have changed before and after quasi-experiment (see Table 6). By applying the “t” criterion of independent groups, it was found that before the intervention, the pupils who were assigned to the EG segment, assessed and understood the consequences of drug use better than the pupils who were assigned to the CG segment. After the intervention, evaluations of the pupils assigned to the CG and EG segments did not change in a statistically significant way.

Table 6. Changes of the indicators assigned to the sub-scale of perceptions about drug use during the time of quasi-experiment (source: author’s compilation)

<table>
<thead>
<tr>
<th>Group</th>
<th>CG</th>
<th>EG</th>
<th>Avg. Differences</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before the experiment</td>
<td>2.95</td>
<td>2.79</td>
<td>0.16</td>
<td>2.034</td>
<td>215</td>
<td>0.043</td>
</tr>
<tr>
<td>After the experiment</td>
<td>2.98</td>
<td>2.77</td>
<td>0.21</td>
<td>1.913</td>
<td>194</td>
<td>0.057</td>
</tr>
</tbody>
</table>

By comparing the variables of the discussed sub-scales in the experimental and control groups, it was found that before the quasi-experiment in the CG and EG segments there were statistically significant differences of the indicators of following variables (see Table 7): Will succeed worse at school; The relationships with friends will become worse.

Table 7. Changes of the variables (belonging to different sub-scales) which describe perceptions about the effects of drug use during the time of quasi-experiment (source: author’s compilation)

<table>
<thead>
<tr>
<th>Sub-scale variables</th>
<th>Group/Segment</th>
<th>CG</th>
<th>EG</th>
<th>Mean differences (differences of averages)</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Will have troubles with the police</td>
<td>Before the experiment</td>
<td>3.34</td>
<td>3.29</td>
<td>0.05</td>
<td>0.436</td>
<td>215</td>
<td>0.663</td>
</tr>
<tr>
<td></td>
<td>After the experiment</td>
<td>3.42</td>
<td>3.28</td>
<td>0.14</td>
<td>1.021</td>
<td>194</td>
<td>0.309</td>
</tr>
<tr>
<td>Will succeed worse at school</td>
<td>Before the experiment</td>
<td>3.38</td>
<td>3.09</td>
<td>0.29</td>
<td>2.278</td>
<td>215</td>
<td>0.024</td>
</tr>
<tr>
<td></td>
<td>After the experiment</td>
<td>3.38</td>
<td>3.16</td>
<td>0.22</td>
<td>1.644</td>
<td>194</td>
<td>0.102</td>
</tr>
<tr>
<td>The relations with parents will become worse</td>
<td>Before the experiment</td>
<td>3.41</td>
<td>3.25</td>
<td>0.16</td>
<td>1.343</td>
<td>215</td>
<td>0.181</td>
</tr>
<tr>
<td></td>
<td>After the experiment</td>
<td>3.47</td>
<td>3.21</td>
<td>0.26</td>
<td>1.585</td>
<td>194</td>
<td>0.115</td>
</tr>
<tr>
<td>Will be removed from school</td>
<td>Before the experiment</td>
<td>3.24</td>
<td>3.03</td>
<td>0.21</td>
<td>1.614</td>
<td>215</td>
<td>0.108</td>
</tr>
<tr>
<td></td>
<td>After the experiment</td>
<td>3.25</td>
<td>2.99</td>
<td>0.26</td>
<td>1.787</td>
<td>194</td>
<td>0.075</td>
</tr>
<tr>
<td>The relationships with friends will become worse</td>
<td>Before the experiment</td>
<td>3.11</td>
<td>2.82</td>
<td>0.29</td>
<td>2.260</td>
<td>215</td>
<td>0.025</td>
</tr>
<tr>
<td></td>
<td>After the experiment</td>
<td>3.07</td>
<td>2.83</td>
<td>0.24</td>
<td>1.585</td>
<td>194</td>
<td>0.115</td>
</tr>
<tr>
<td>Addiction will develop</td>
<td>Before the experiment</td>
<td>3.44</td>
<td>3.31</td>
<td>0.13</td>
<td>1.155</td>
<td>215</td>
<td>0.249</td>
</tr>
<tr>
<td></td>
<td>After the experiment</td>
<td>3.45</td>
<td>3.34</td>
<td>0.11</td>
<td>0.857</td>
<td>194</td>
<td>0.392</td>
</tr>
</tbody>
</table>
In all other cases, the indicators of the sub-scale of Perceptions about the consequences of drug use has changed in the experimental group after the quasi-experiment, but the changes were statistically insignificant.

Conclusions

The data of the quasi-experiment research showed that as the whole after intervention the pupil’s perceptions about the use of psychoactive substances in the experimental group has changed. By applying the independent t criterion, statistically significant differences were detected regarding the assessment of the consequences of using the psychoactive substances before and after the quasi-experiment: the pupils who were assigned to the experimental group assessed the consequences of the use of psychoactive substances better than those who were assigned to the control group.

The investigation of changes in the perceptions of the consequences of smoking, alcohol and drug use shows that in the experimental and control groups after the quasi-experiment statistically significant differences of such perceptions were established only in a segment related to the assessment of the consequences of alcohol use. The pupils belonging to the experimental group more adequately assessed the effects of alcohol consumption such as feeling better, becoming more popular and forgetting troubles and this confirms a better understanding of the effects of the use of psychoactive substances among them.

Data from the analogous quasi-experimental which was completed in the 7’th and 8’th grades showed that after the intervention in the experimental group the perception of the consequences of the use of psychoactive substances has improved. The results of the previous study (see Saveljeva & Valantiejienė, 2017) indicate that the experimental group’s pupils assessed the consequences of alcohol and drug use more objectively than before the
intervention. Therefore, the results of the research, presented in this article, coincide with the results of other similar surveys and, accordingly, can be interpreted as confirmation of a better understanding of the consequences of alcohol and drug use among the pupils, participating in the prevention programs.

Based on the results of the empirical research and its analysis, it can be concluded that the psychoactive substances use prevention program “My Way” has a measurable effect on the perceptions of the consequences of the use of psychoactive substances for pupils studying in 9th-12th grades. Therefore, representatives of school administration, pedagogues, and educators, as well as educational assistance specialists who seek to prevent the use of psychoactive substances, can be recommended to implement the prevention program “My Way” in 9th-12th grades of general education schools.

References


