

**VYTAUTAS MAGNUS UNIVERSITY**

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**THE CHANGES OF HARMFUL BEHAVIOUR TOWARDS  
SELF AND OTHERS FROM 5<sup>TH</sup> TO 12<sup>TH</sup> GRADES AND  
PSYCHOSOCIAL FACTORS RELATED TO THIS  
BEHAVIOUR**

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Copy of the dissertation is available at the library of Vytautas Magnus University and Martynas Mazvydas National Library of Lithuania.

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## 1. INTRODUCTION

Adolescence is a transitional period of human development, during which one has to achieve physical, psychological and social maturity. People going through this period gain necessary experience for successful adaptation to society and future independent life. Having reached the end of adolescence, which coincides with completion of puberty and cognitive maturation, a person becomes a young adult, and one who displays responsible behaviour towards others and himself. However, the fact that suicidal attempts, substance use, and aggressive behaviour are very common among young people negates this particular concept of maturity.

Since adolescence is a period of preparing for adulthood, it is possible that behaviour, life style, emotional state, or quality of relations of adolescents can predict behaviour or the state of health in adulthood (Larsson, Hemmingsson, Allebeck, Lundberg, 2002; Orlando, Tucker, Ellicksom, Klein, 2005; Prinz, Kerns, 2003). Therefore, we can expect that differences in expressed harmful behaviour towards self and others in adulthood are determined by psychological and social factors in adolescence.

Suicide is a problem of primary concern in the domain of Lithuanian public health (Gailienė, 2000; National Health Board's Annual Report, 2005). Some 1049 Lithuanians committed suicide in 2006 (30.9 suicides per 100,000 population), with males being 4 times more likely to commit suicide than females. Suicide is the fourth most common cause of death in the country (Statistical Yearbook of Lithuania, 2007).

Substance use is another topical and critical problem in Lithuania's public health. Cigarette smoking causes an estimated 7000 deaths each year (Peto, Lopez, Boreham, Thun, Heath, 1993). Tobacco smoking causes 1 of every 5 deaths in the USA (Smoking and tobacco use, 2006). Adults who smoke cigarettes die 14 years earlier than non-smokers (Smoking and tobacco use, 2006). Alcohol consumption is responsible for a 2 year loss in life expectancy among men and 0.4 years among women. In the age group of 15–49 years, over 40 percent of all deaths among men and 15 percent among women were alcohol related (Makela, 1998).

Harmful behaviour towards others is another relevant problem. Some 75,474 crimes were registered; over 8000 persons were incarcerated in 2006 (Statistical Yearbook of Lithuania, 2007). Aggressive behaviour towards other people or their

property is not always classified as a crime even though it causes negative emotions or adaptation problems to both the aggressor and the victim (Fortin, 2003; Sweeting, Young, West, Der, 2006).

Harmful behaviour towards self and others begins in childhood or adolescence. Sporadic suicide is committed at the age of 10-14 years, but children under the age of 17 seldom commit suicide: 23 Lithuanian teenagers under the age of 17 years (20 boys and 3 girls) committed suicide in 2006, while the total population of school-age children was about half a million (Children in Lithuania, 2007). The mortality is minimal under the age of 17, suicide constitutes 9 percent of all deaths among adolescents (Wasserman, Cheng, Jiang, 2005), hence the importance of suicide in the pattern of death causes in this period of life.

Experimental substance use has been registered to start in childhood as well, and grows during all stages of adolescence (Finn, 2006; Maggi, Linn, Marion, 2005; Wills, Sandy, Yaeger, 2002) and finally reaches that of adults' by high school graduation. (Goštautas, 2004; Goštautas, Pilkauskienė, 1993).

Children begin to display aggressive behaviour very early, and in adolescence this behaviour becomes harmful towards others. Over the year 2006, juvenile offenders committed over 4,000 crimes in Lithuania. Some 171 juvenile offenders are incarcerated each year, which constitutes about an 11<sup>th</sup> of all jailed persons (Statistical Yearbook of Lithuania, 2007).

The described structure of causes of death and behaviour peculiarities typical to adolescence makes research in the field of harmful behaviour towards self and others particularly important. Psychological research displays a tendency of analyzing substance use, suicidal and aggressive behaviour separately from one another. However, there is ample evidence that all these forms of harmful behaviour are interrelated because of social boundaries and susceptibility to social influence or even because of some internal biopsychological mechanisms.

The idea of this research should be construed in the context of personal and public health, which is understood as a state of physical, psychological and social wellbeing. According to this definition, health should be strongly related to a person's lifestyle, i.e. their behaviour could be beneficial or detrimental to health.

The object of this research is harmful behaviour towards self and others, assuming that this is the same behaviour with a different target: external and internal (Krug, Mercy, Dahlberg, Zwi, 2002). Self-harming behaviour includes different types of health or life damaging behaviour: from conscious self-hurting with its extreme form being suicide, to substance use. Harmful behaviour towards others should be classified as the same damaging behaviour, only with an external target.

The *Biopsychosocial Model* is used in the study as theoretical background. This model takes a holistic approach to the personality, the health and behaviour of which are the result of interaction of biological, psychological and social factors. Harmful behaviour towards self and others is interpreted through the perspective of this model, taking into consideration that the peculiarities of psychology and behaviour are concurrent with the biological maturity level of the adolescents and their social environment. Whereas the biological components of the behaviour can not be studied using psychological methods, the object of this study is narrowed down to the psychological and social components. *Problem Behaviour Theory* (Jessor, 1987) is the keystone of the concept used in the study. The theory maintains that specific behavioural forms during adolescence constitute one behaviour syndrome, which integrates different forms of the behaviour due their similar psychological meaning.

### ***1.1 Scientific novelty of the study***

Although different forms of adolescents' harmful behaviour towards self and others are widely analysed in scientific literature, this behaviour is rarely analysed as a complex. R. Jessor's *Problem Behaviour Theory* (Jessor, 1987; Costa, 2006) is one of the theories in psychology which approach use of substances, aggressive behaviour, and early sexual behaviour as components of a problem behaviour syndrome. The novelty of this study is that abuse of tobacco, alcohol and other drugs, suicidal behaviour and aggressive behaviour are understood and empirically studied as a one phenomenon. Integrating suicidal behaviour into the model described in *Problem Behaviour Theory* is an important innovation of the study.

Another new aspect of the study is that changes in substance use as well as in suicidal and aggressive behaviour are studied in the same population of students during their entire adolescence period. Data presented in international scientific literature on

changes in harmful behaviour of adolescents towards self and others doesn't reflect their entire period of adolescence, nor is it obtained using different populations of adolescents (Scheidt, Overpeck, Wyatt, Aszmann, 2000; Zaborskis, Makari, 2001). On the other hand, data on the changes of this behaviour during the entire period of adolescence is scarce in Lithuania. As cultural differences in harmful behaviour towards self and others are significant (Wild, Flisher, Bhana, Lombard, 2004; Reuter, Kwon, 2005; Zaborskis, Makari, 2001), changes revealed by the study can be important in planning preventive measures against harmful behaviour towards self and others during adolescence and even during adulthood. The combined research design of cross-sectional, longitudinal, and cohort data, which is rarely used in scientific research in the domain of developmental psychology (Ignatavičienė, Žukauskienė, 2002), was used in this study. This design facilitates disclosing important answers about the changes of harmful behaviour towards self and others, which is helpful in estimating the possible influence of age and the cohort effect on this behaviour.

### ***1.2 Theoretical and practical significance of the dissertation***

The majority of theoretical concepts and studies in scientific literature analyse substance use, suicidal and aggressive behaviour as separate phenomena, or make only vague connections among these forms of behaviour (Prinstein, Boergers, Spirito, 2001). In order to demonstrate that the aforementioned forms of harmful behaviour towards self and others constitute one behavioural construct, they are analyzed in this study as a complex. This concept would allow empiric verification of R. Jessor's *Problem Behaviour Theory* and its extension. The theory identifies problem behaviour as substance use, aggressive behaviour and early sexual relationships. However, this study aims to prove that suicidal behaviour extends the concept of problem behaviour and complements the construct of problem behaviour. This concept would facilitate verification of whether suicidal behaviour as well as substance use and aggressive behaviour could be explained by the same psychological factors. The obtained results would extend the theoretical knowledge about the relationships among the different forms of harmful behaviour towards self and others and the significance of this behaviour during the adolescence.

Changes observed in harmful behaviour towards self and others from the 5<sup>th</sup> to 12<sup>th</sup> grades would help predict experiences accumulated by adolescents prior to their entering adulthood.

The integrated concept of harmful behaviour towards self and others, as a syndrome composed of such forms of behaviour as substance use, suicidal behaviour and aggressive behaviour, facilitates prevention planning and helps to obtain better results as well as reduce its costs. If harmful behavior towards self and others is both in its purpose and meaning a single form of behavior, then by identifying psychological and social factors that predict harmful behavior towards self and others, it can be expected that changing or modifying certain social circumstances or improving certain psychological factors could result in successful solution of not just one problem, but the entire behavior syndrome. The identified individual models of different forms of behavior will capacitate predicting which psychological and social factors are connected with all three forms of behavior, meaning that by changing the factors in question or the school environment, a decrease in problem behavior can be expected.

### ***1.3 The aim and objectives of the research***

The present research aims to assess how harmful behaviour towards self and others changes during adolescence and to investigate related psychosocial factors; also, the study seeks to explain harmful behaviour towards self and others in the framework of *Problem behaviour theory*.

In support of the study's aim, the following objectives have been set:

1. To assess the prevalence of harmful behaviour towards self and others as well as gender differences in this behaviour from the 5<sup>th</sup> to 12<sup>th</sup> grades.
2. To assess how harmful behaviour towards self and others changes during adolescence among boys and girls:
  - a. To analyse differences in harmful behaviour towards self and others from the 5<sup>th</sup> to 12<sup>th</sup> grades;
  - b. To analyse how harmful behaviour towards self and others changes in the duration of 3 years;
  - c. To analyse the cohort effect on harmful behaviour towards self and others.

3. To determine a relationship between tobacco, alcohol and other drug abuse, suicidal behaviour and aggressive behaviour.
4. To distinguish groups of students, that displayed qualitative differences according to links between forms of harmful behaviour towards self and others.
5. To analyse psychosocial factors, related to harmful behaviour towards self and others.
6. To determine psychosocial factors, related to all forms of harmful behaviour towards self and others among students studying in the 5<sup>th</sup> to 12<sup>th</sup> grades.

#### ***1.4 Theses to be defended***

Based on the literature review presented in the dissertation, the following theses have been set for defence:

1. Tobacco, alcohol and other drug abuse, suicidal behaviour and aggressive behaviour compose one problem behaviour syndrome.
2. All forms of harmful behaviour towards self and others (tobacco, alcohol and other drug abuse, suicidal behaviour and aggressive behaviour) are related to the same psychological and social factors.
3. In general, the prevalence of harmful behaviour towards self and others increases during adolescence, but different forms of harmful behavior have different developmental trajectories.

#### ***1.5 The structure of the dissertation***

The dissertation contains theoretical and empirical parts. Seven chapters of literature review allowed raising the hypotheses for this research. The empirical part covers chapters which represent research methods, results of the research, discussion, and conclusions. The results presented in 3 tables and 16 pictures. The results of statistical analysis are represented in 5 affixes. The list of references contains 189 items.

## **2. CONTENT OF THE DISSERTATION**

### ***2.1 Theoretical issues***

An overview of literature and analysis of previous research results is completed. The first chapter discusses the understanding of behaviour using the concept of this term

suggested by Ajzen & Fishbein (1975). Also, the concepts of substance use, aggressive and suicidal behaviour are defined. After discussing possible explanations for harmful behaviour towards self and others, *Problem Behaviour Theory* is selected as theoretical background. The next chapter describes gender differences in harmful behaviour towards self and others and developmental trajectories through adolescence. The next chapter is devoted to links between substance use, aggressive behaviour and suicidal behaviour, also possible explanatory mechanisms of associations are arguing. Finally, factors which contribute to the development of each form of harmful behaviour towards self and others are described, controversial results from other studies are discussed and new assumptions are derived for the current study. Main ideas revealed from literature are used for raising hypotheses.

## **2.2 Research methods**

### **2.2.1 Sample**

The sample of this study was designed from an entire population of school children studying in the 5<sup>th</sup> to 12<sup>th</sup> grade in one regional medium sized town in central Lithuania. A total of six secondary public schools out of six participated in the study in collaboration with Theoretical Psychology Department at Vytautas Magnus University. All students from grade 5<sup>th</sup> to 12<sup>th</sup> were invited to participate in the survey.

The survey was administrated during years 2003, 2004 and 2005, each time following the same procedure. Students, who were not present in class during the time of administering the survey, were not additionally invited to participate.

A total of 2894 students (54.3 % males and 45.7 % females) from grade 5<sup>th</sup> to grade 12<sup>th</sup> participated in the survey during 2003, with 2332 students (53.0 % males and 47.0 % females) and 2958 students (53,5 % males and 46,5 % females) having took part in the survey during year 2004 and year 2005, respectively. According to the data of the local Department of Education, students who took part in the study compose anywhere from 65 to 85 % of the entire population of 5<sup>th</sup> – 12<sup>th</sup> graders in the town.

Data collected from surveys of a total of 8183 respondents was used in the dissertation.

As can be seen in this graph, students studying in the 5<sup>th</sup> to 10<sup>th</sup> grade are distributed quite equally; however, a much lesser percentage of students (especially

males) took part in the study. This proportion, however, quite nearly reflects the actual distribution of school-aged children in Lithuania, because after completing the 10<sup>th</sup> grade, students are free to choose other educational options, for example vocational schools, professional training or other activities.

### 2.2.2 Research methods

For the purpose of this study we combined various questionnaires used in previous research conducted in Lithuania. A questionnaire for psychosocial functioning in adolescence was initially developed for assessment in large groups by A. Goštautas (1998) and approved in studies conducted by his doctoral students (Goštautas, Šeputytė, 2003). Health and lifestyle questions from international Kaunas Rotterdam Intervention Study (Glazunov, Dowd, Baubiniene et al., 1981), abstract thinking scale from Kettel's 16 factors inventory (16 asmenybės faktorių, 1979) and Rokeach's values (Goštautas, Goštautas, 1996; Rokeach, 1969) list were used.

Factorial analysis with *Varimax* rotation was run for all questions (except for values and tasks of abstract thinking) to confirm presence of internal constructs represented in scales. Some 11 main factors emerged from the analysis. By composing subscales, questions with factorial weight higher than 0.4 are included. Cronbach alpha is used for internal consistency among items in the subscale.

The self-reported questionnaire included 3 major scales for harmful behaviour towards self and others: substance use scale, aggressive behaviour scale, suicidal behaviour scale. The *substance use scale* includes 22 items (standardized Cronbach alpha – 0.939) for measuring frequency of tobacco and alcohol use, amount of alcohol consumed or cigarettes smoked, smoking or alcohol consumption patterns in the close social environment, use of other illicit drugs. Due to the possibility of marking different possible choices under the items, standardized scores are used for statistical analysis. The *suicidal behaviour scale* involves 13 dichotomous questions about one's dissatisfaction with life, feelings of meaninglessness, thoughts about death, suicidal thoughts, intentions and attempts to commit suicide (Cronbach alpha – 0.842). Items in this scale are similar to those, which are conventionally used in research over the world (Hukkanen, Sourander, Bergroth, 2003; Prinstein, Boergers, Spirito, 2001). The *aggressive behaviour scale* is developed with 12 dichotomous items representing a

positive attitude towards demonstration of power, intention to threaten and hurt other persons or damage property of others, also actual harmful behaviour towards others (Cronbach alpha – 0.727).

For assessing psychosocial correlates of harmful behaviour towards self and other scales of depressive mood, self-rated health, self-esteem, learning attitudes, abstract thinking, value orientation, future planning, relations with teachers and living conditions were used. **Depressive mood** is measured with a 20-item scale, which represents state of sadness, state of inactivity, anxiety, fatigue, everyday stress (standardized Cronbach alpha – 0.891). The **scale of self-esteem** (8 items) describes one's satisfaction with their appearance, abilities, general self-satisfaction (Cronbach alpha – 0.728). **Self-rated health** is measured with a scale composed of 6 items for subjects' evaluation of health status, physical and mental health status, own health in comparison with peers (standardized Cronbach alpha – 0.794). **Future plans** are assessed by 4 dichotomous items reflecting one's hopes for the future and exact plans for upcoming years (Cronbach alpha – 0.678). The **learning attitudes** scale (3 items) describes one's interest in learning and subjective evaluation of success in learning (Cronbach alpha – 0.745). **Relations with teachers** are assessed by a 6-item scale, reflecting disagreement with teachers, also one's opinion that teachers treat him/her inappropriately and do not appreciate efforts put forward in academic activities (standardized Cronbach alpha – 0.663). The **living conditions scale** reflects a subject's familial composition, parental education, financial well-being in the family, possibilities for the child to handle money of their own (7 items; standardized Cronbach alpha – 0.687).

The value orientation list was developed by Goštautas and Goštautas (1996) using Rokeach's (1969) method for value assessment. Factorial analysis for the value orientation list suggested a two factor solution. The first one is named as the **social value** factor (9 items) and reflects traditional values, i.e. respect for older people, family wellness, morality, love, health etc. (Cronbach alpha – 0.776). The second one is relatively titled the **material value factor** and represents one's tendency towards hedonistic or self-centred values like money, good appearance, pleasure, power, prestige, active life (10 items, Cronbach alpha – 0.783).

Cattell's 16 personality factor instrument was used for assessing *abstract thinking*. Some 12 tasks were chosen from A and B forms from this questionnaire's B factor. The B factor, initially developed to measure cognitive ability, ranged from concrete (person learns slowly, understands concrete tasks) to abstract thinking (person is creative, learns and perceives quickly) (Sixteen personality factors, 1979). The internal consistency is 0.570, which is considered rather low, however still appropriate for group testing and statistical analysis. Scores from this scale are only an indicator of cognitive abilities. It has been acknowledged that cognitive abilities are multiple, but they are related and any of the abilities might quite well represent the level of others (Rindermann, 2007). Abstract thinking was selected because it might be considered a cognitive ability which integrates other abilities during the formal thinking stage in adolescence (Piaget, 2003).

The SPSS (13th version) package is used for statistical analysis of empirical data. Descriptive statistics are used to describe variables, hypotheses are verified using the following statistical criteria: cross tabulation with  $\chi^2$  criteria, structural ANOVA model, binomial and multinomial regression, cluster analysis, factor analysis, reliability Cronbach alpha coefficient.

## **2.3 Results**

### **2.3.1 Gender differences in harmful behaviour towards self and others**

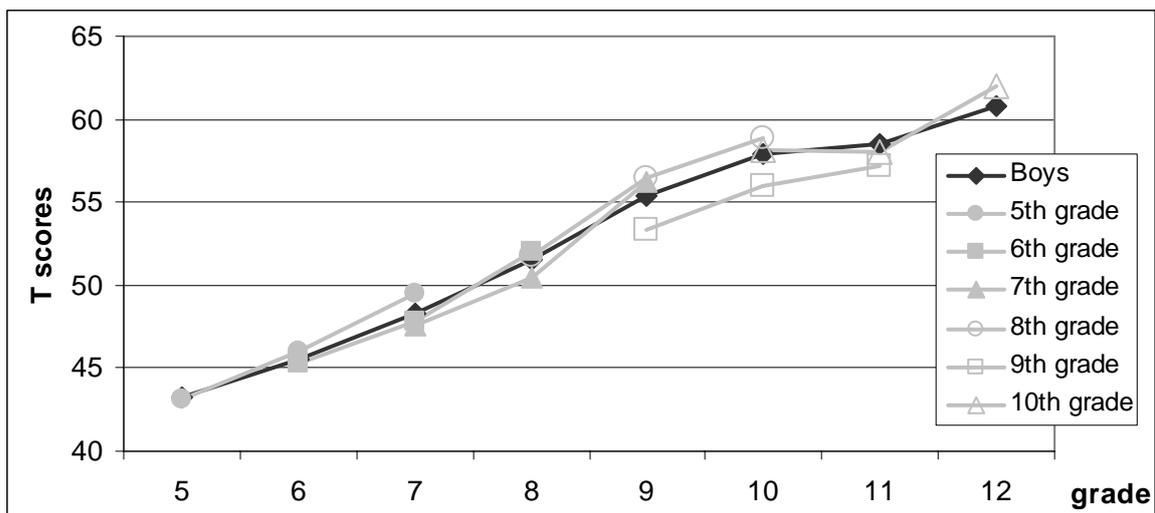
Harmful behaviour towards self and others is compared among groups of boys and girls. Boys are more prone to use tobacco, alcohol and other illicit drugs than girls ( $p < .001$ ). More boys than girls smoke tobacco everyday (20 % versus 10.9 %); boys who smoke, consume more cigarettes a day than smokers, who are girls (6.12 versus 3.55). Also more boys consume alcohol at least once a week than girls (16.1 % versus 9.5 %), and those boys, who drink alcohol, consume more alcoholic beverages per evening: boys consume more beer than girls (936 grams versus 277 grams), more strong beverages than girls (179 grams versus 82 grams). Both boys and girls consume a similar amount of wine. More boys than girls have ever tried other drugs (21 % versus 11.2 %). Boys have a higher standardized T score in the substance scale (which is used for further analysis) than girls (52.2 versus 48.2).

There are some gender differences in suicidal behaviour. Boys report 1.36 times greater frequency of suicidal thoughts and 1.31 times greater frequency of suicidal attempts than girls ( $p < .001$ ). A more precise analysis revealed that gender differences occur only in the group of 5th-7th graders. Older boys and girls have already displayed suicidal behaviour. There is no statistically significant difference in the scale of suicidal behaviour between the T scores of boys and girls.

Gender differences in aggressive behaviour are found only in the aggressive behaviour scale. Analysis resulted with higher T scores among boys (52.9) than girls (47.7). Results of gender differences in harmful behaviour towards self and others are confirmed in the data collected during all three stages (2003-2005).

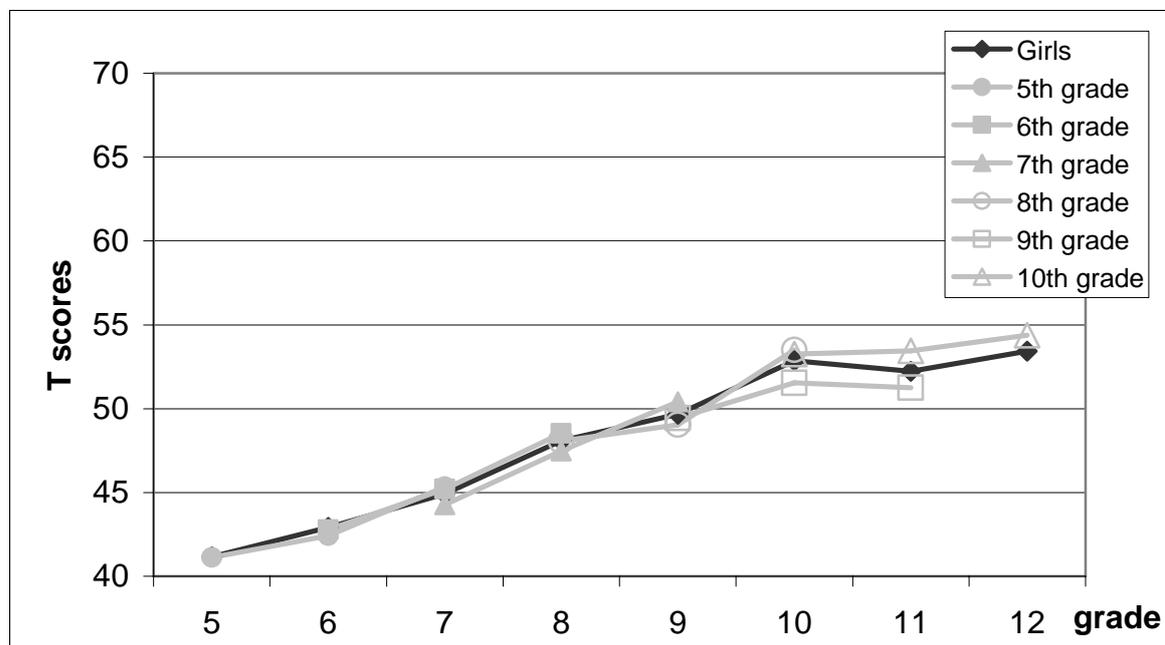
### 2.3.2 Changes in harmful behaviour towards self and others from the 5<sup>th</sup> to 12<sup>th</sup> grade

Changes in harmful behaviour towards self and others from the 5<sup>th</sup> to 12<sup>th</sup> grade are assessed in different ways: one-way ANOVA was run to evaluate differences from the 5<sup>th</sup> to 12<sup>th</sup> grade in harmful behaviour towards self and others of cross-sectional data in three research stages, three year pseudo-longitudinal changes in each of the age groups, and finally different cohorts are compared in all age groups.



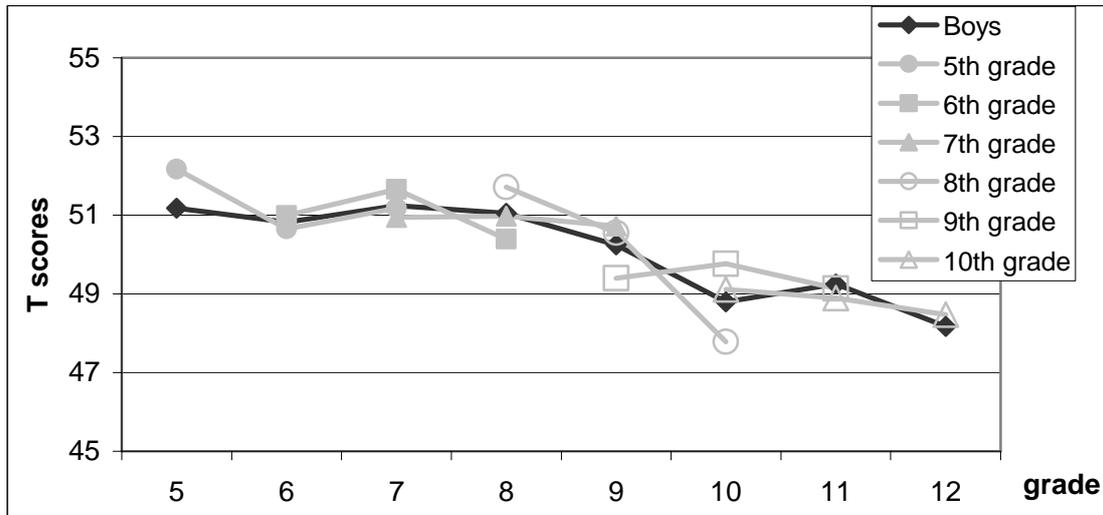
**Picture 1.** Changes in substance use from 5<sup>th</sup> to 12<sup>th</sup> grade (black line) and during 3 years of study in the boys group (grey lines).

A cross-sectional analysis shows that for both boys and girls, use of any substances significantly increases from the 5<sup>th</sup> to 12<sup>th</sup> grade ( $p < .001$ ), except non-significant differences between boys in 10<sup>th</sup> and 11<sup>th</sup> grades and girls in 10<sup>th</sup>, 11<sup>th</sup> and 12<sup>th</sup> grades. The same results are confirmed in a longitudinal comparison – substance use increases as students go through transition to upper grades in three years. Some non-significant changes are observed again around the 10<sup>th</sup> – 12<sup>th</sup> grades (see pic. 1 and 2). When each age group is analyzed for cohort effect, only one significant difference emerges – 12<sup>th</sup> graders in 2004 scored lower on the substance use scale than 12<sup>th</sup> graders in 2003 and 2004.

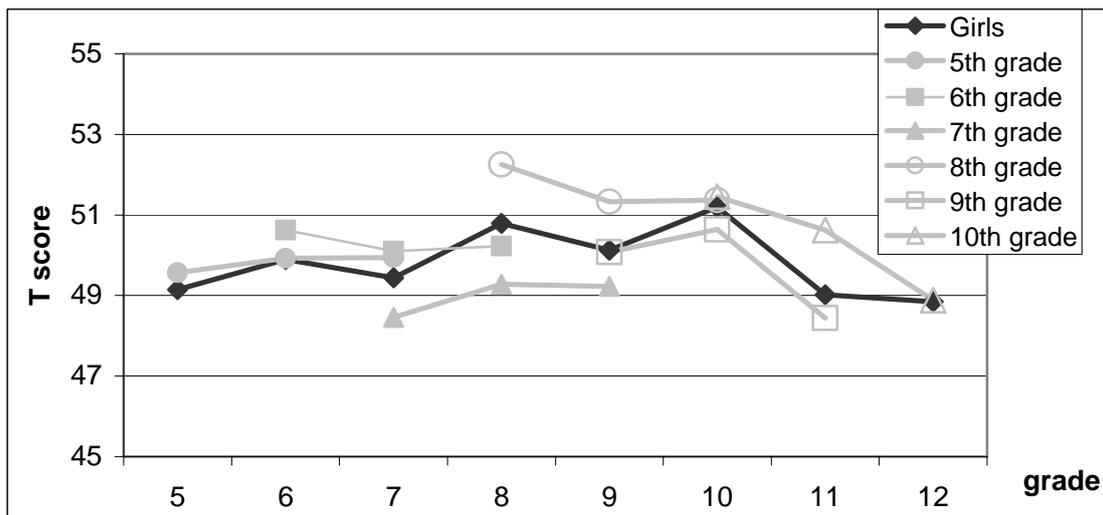


**Picture 2.** Changes in substance use from 5<sup>th</sup> to 12<sup>th</sup> grade (black line) and during 3 years of study in the girls group (grey lines).

There is a small slope in suicidal behaviour in senior grades in comparison with 5<sup>th</sup> – 9<sup>th</sup> grades for both genders in cross-sectional data in all three waves of the analysis ( $p < .001$ ). A longitudinal analysis of data confirms quite a similar tendency of change. There are no changes in suicidal behaviour when 5<sup>th</sup> – 8<sup>th</sup> graders go through the three-year transition. However, 9<sup>th</sup> and 10<sup>th</sup> graders experience a decrease at least once during three years with some gender differences (pic. 3 and 4). Cohort effect for suicidal behaviour is mainly non-significant ( $p > .05$ ), except for 12<sup>th</sup> grader girls in 2003, who scored higher on suicidal behaviour than 12<sup>th</sup> graders in the later waves.



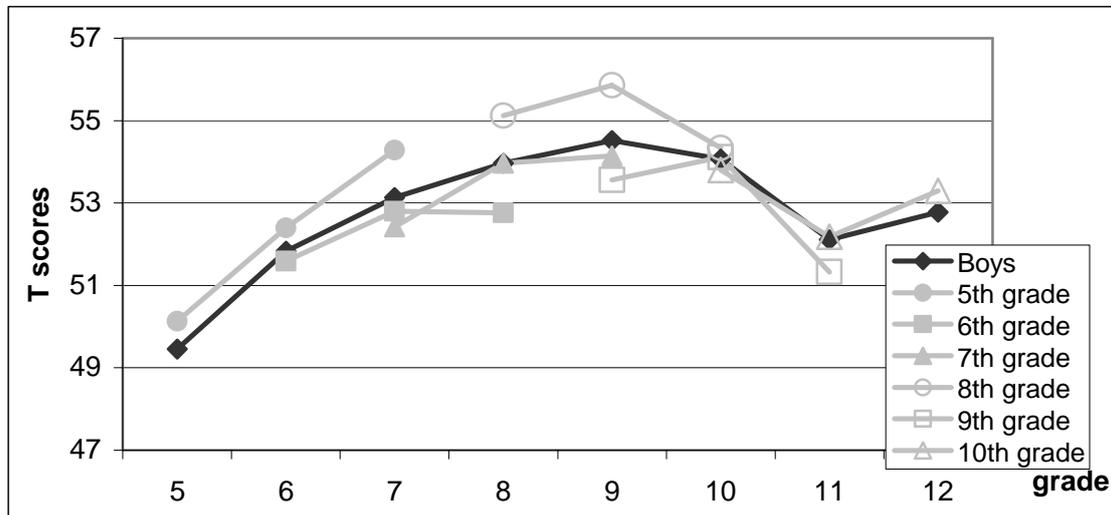
**Picture 3.** Changes in suicidal behaviour from 5<sup>th</sup> to 12<sup>th</sup> grade (black line) and during 3 years of study in the boys group (grey lines).



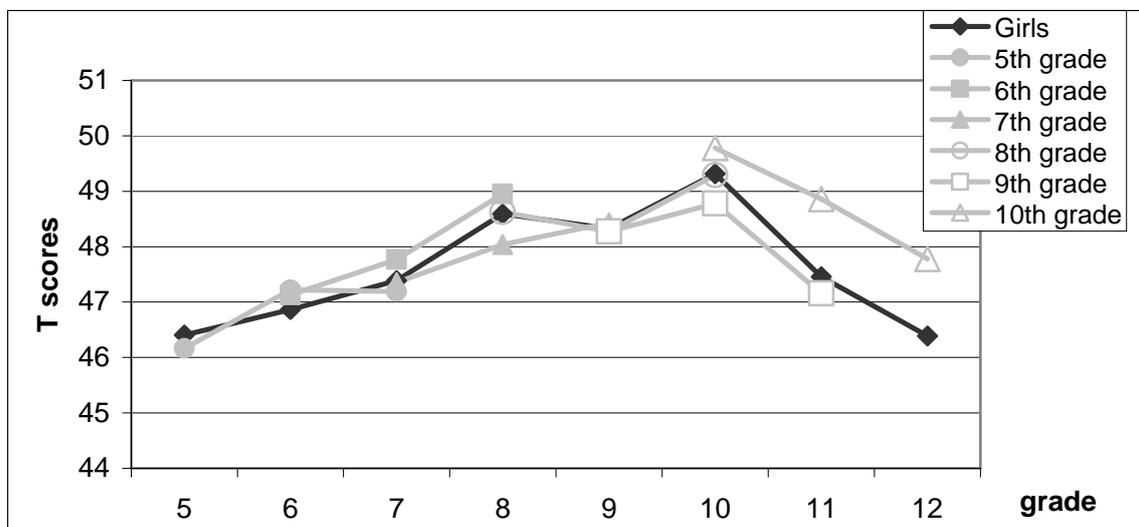
**Picture 4.** Changes in suicidal behaviour from 5<sup>th</sup> to 12<sup>th</sup> grade (black line) and during 3 years of study in the girls group (grey lines).

Aggressive behaviour changes through the 5<sup>th</sup> to 12<sup>th</sup> grade and display a reversed U-shape form of change. Students of both genders score higher on the aggressive behaviour scale in the 8<sup>th</sup> to 10<sup>th</sup> grades in comparison with younger and older students according to cross-sectional data ( $p < .001$ ). Longitudinal data allows confirming similar changes for students in the duration of three years. A significant increase in scores on aggressive behaviour is observed among younger students; the scores become level during the 7<sup>th</sup> and 8<sup>th</sup> grades, and finally decrease as the students

get older (5 and 6 pic.). As had been said of other forms of harmful behaviour towards self and others, cohort effect is observed only for 12<sup>th</sup> graders, with girls in 2005 reporting more aggressive behaviour than 12<sup>th</sup> graders in 2004.



**Picture 5.** Changes in aggressive behaviour from 5<sup>th</sup> to 12<sup>th</sup> grade (black line) and during 3 years of study in the boys group (grey lines).



**Picture 6.** Changes in aggressive l behaviour from 5<sup>th</sup> to 12<sup>th</sup> grade (black line) and during 3 years of study in the girls group (grey lines).

### 2.3.3 Relationships among forms of harmful behaviour towards self and others

In order to determine links between forms of harmful behaviour towards self and others, regression analyses were conducted for predicting each form of behaviour, including as predictive variables gender, grade, the remaining two forms of behaviour and interaction between all these variables. All models of regression presented in this

chapter meet all statistical criteria of a models' fit to data and they explain 19 – 39 percent of variance.

The male gender, upper grade and higher scores on suicidal and aggressive behaviour are all significant predictors for substance use. Also, some interactions between variables are important in predicting substance use. Girls are more likely to engage in substance use with age, if they score high suicidal behaviour, and older students are more likely to use substances if they score high on aggressive behaviour.

Suicidal behaviour is predicted by lower grade, higher ranks of substance use and aggressive behaviour. Probability to belong to group of students with suicidal behaviour increases for students of lower grades who have high rank of aggressive behaviour, for girls who have high rank of substance use.

Male gender, lower grade, higher ranks of suicidal behaviour and substance use are significant variables for aggressive behaviour's prediction. Also probability to engage in aggressive behaviour increases for boys with higher rank of substance use, for students in lower grades with higher rank of substance use, and for students in upper grades who have higher rank in suicidal behaviour.

The similar results about relations among forms of harmful behaviour towards self and others are replicated if the intensity of behaviour is taken to account.

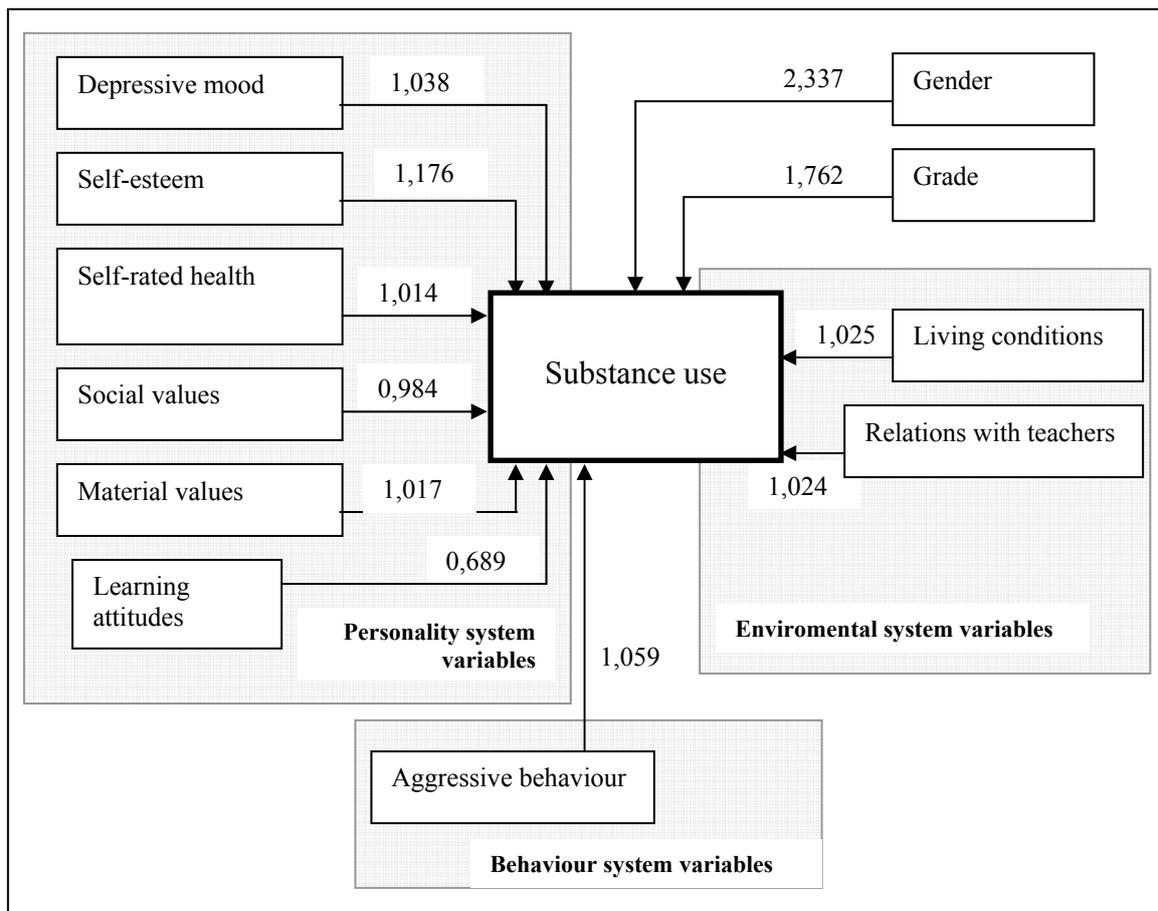
In an attempt to verify the hypothesis that all three forms of behaviour studied here are related to one another, we conducted a cluster analysis, including substance use, aggressive and suicidal behaviour as grouping variables. Because gender and grade were significant variables in describing behaviour, separate cluster analyses were conducted for boys and girls as well younger and older students. The analysis resulted in 3 cluster solutions for both younger and older boys, and solution trends are quite similar. The biggest group of boys (the 2<sup>nd</sup> cluster) belongs to the low behaviour cluster – meaning scored low on all three forms of behaviour. Another group represents boys (3<sup>rd</sup> cluster) with relatively low scores on suicidal behaviour, but high scores on substance use and aggressive behaviour. Finally, the last group (1<sup>st</sup> cluster) includes boys, who have predominant suicidal behaviour and significantly lower scores on substance use and aggressive behaviour.

A different cluster solution was found among girls. Only two clusters are suggested by the cluster analysis. The biggest cluster, just like that in the population of

boys, (1st in the graph) represents girls with low scores on all three forms of behaviour. The second cluster represents a small percentage of girls with relatively high problem behaviour, especially suicidal behaviour.

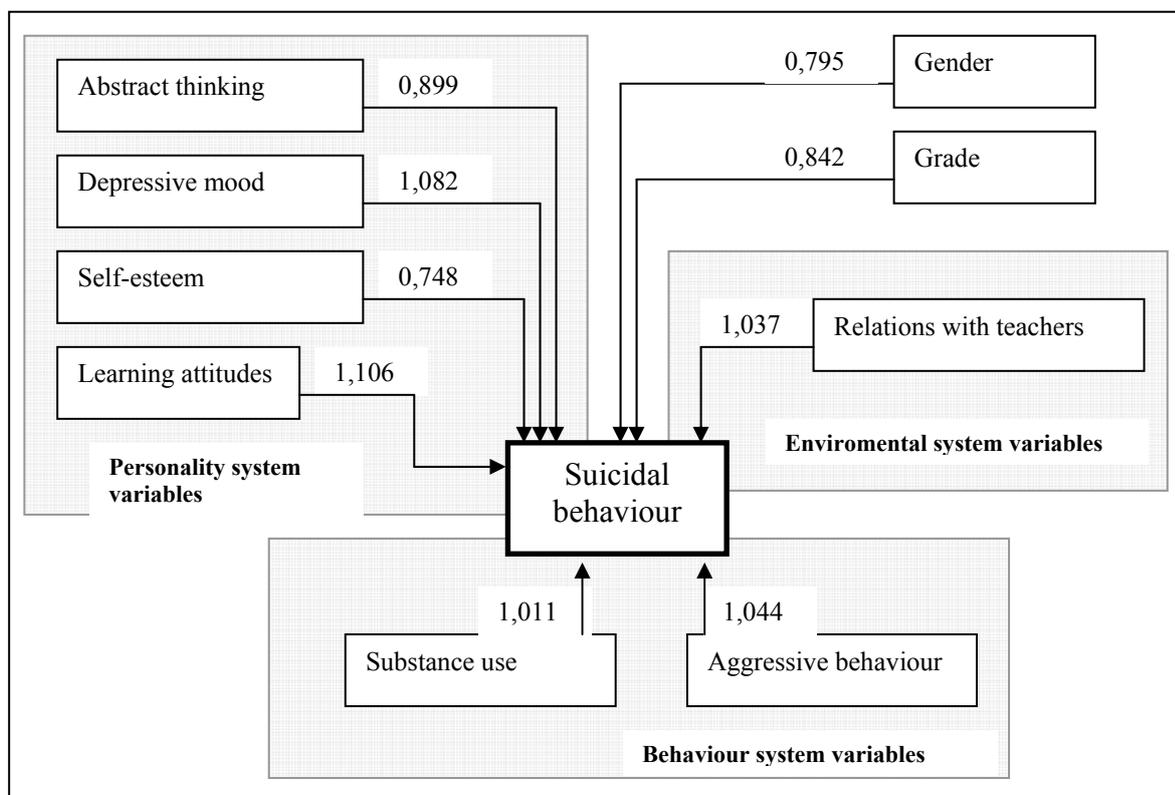
### 2.3.4 Psychosocial factors related to harmful behaviour towards self and others

A few regression analyses for predicting each form of behaviour were conducted in order to determine the relationship between harmful behaviour towards self and others and psychosocial factors. As predictive variables included in the model are gender, grade, two forms of behaviour, depressive mood, self-esteem, self-rated health, learning attitudes, mistakes in abstract thinking tasks, social values, material values, future plans, relations with teachers, living conditions. All three models of regression meet all statistical criteria of a model's fit to a set of data and they explain 26 – 45 percent of found variance.



**Picture 7.** The model of predictors of substance use.

Substance use is predicted by high scores on aggressive behaviour, but suicidal behaviour has no independent predictive value in this model (see pic. 7). Personality system variables (i.e. depressive mood, negative attitude to learning, higher self-esteem, poor self-rated health, low scores on material values and high scores on social values) and environmental system variables (poor relations with teachers and poor living conditions) significantly predict substance use. Future plans and mistakes in abstract thinking tasks have no significant independent value for predicting this type of behaviour. Boys and older students are more likely to engage in use of any substances.

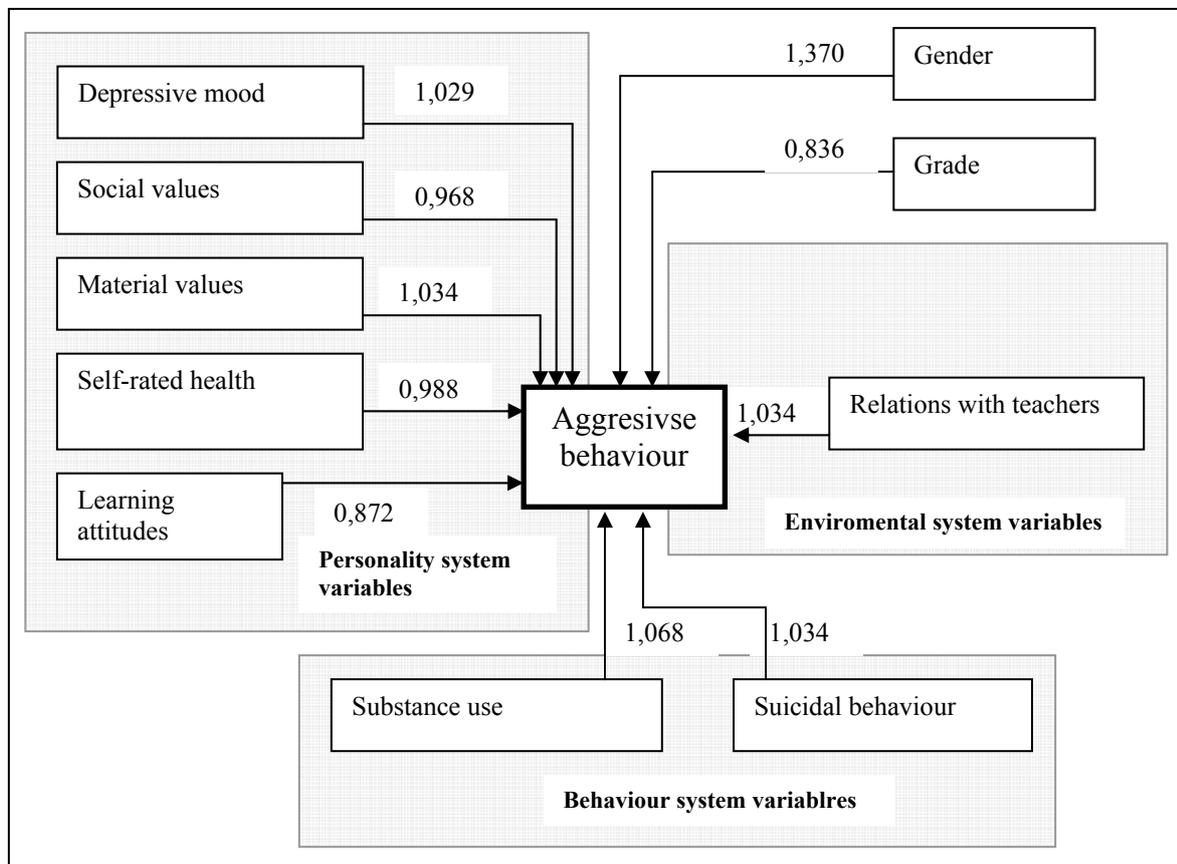


**Picture 8.** The model of predictors of suicidal behaviour.

Suicidal behaviour is related to substance use and aggressive behaviour, poor relations with teachers and some personal system variables – depressive mood, lower self-esteem, negative attitudes towards learning and mistakes on abstract thinking tasks. Girls and younger students are more likely to fall under the suicidal behaviour group. Other variables such as self-rated health, value orientation, future plans and living

conditions have no independent significance in predicting suicidal behaviour (see pic. 8).

A different model for aggressive behaviour was created (see pic. 9). Aggressive behaviour is predicted by substance use and suicidal behaviour, also depressive mood, negative learning attitudes, better self-rated health, high scores on material values, low scores on social values, and poor relations with teachers. Boys and younger students are more prone to aggressive behaviour in this model. Self-esteem, mistakes in abstract thinking tasks, future plans, and living conditions had no independent predictive value for aggressive behaviour.



**Picture 9.** The model of predictors of aggressive behaviour.

This study aimed to determine which psychosocial variables predict pertinence to a specific cluster of harmful behaviour towards self and others. Again, binary logistic regressions were conducted by including aforementioned psychosocial factors. All

models of regression for harmful behaviour towards self and others meet statistical criteria of a model's fit to a set of data and they explain 24 – 44 percent of variance.

There are two models for harmful behaviour towards self and others - one, where suicidal behaviour is dominant in younger (5-8 graders) and one in older (9-12 graders) groups of boys. In case of presence of depressive mood, lower self-esteem and poor relations with teachers, there is a greater probability of falling under this cluster for both younger and older boys. The likelihood of pertaining to this cluster for older boys also increases in case low social values and worse living conditions are reported in addition to the aforementioned variables.

The probability of falling under the cluster of harmful behaviour towards self and others together with low scores on suicidal behaviour increases, in the case that younger and older boys have low social values and dominant material values as well as poor relations with teachers. Additionally, older boys are more prone to this type of behaviour if they lack specific future plans.

Girls with a tendency for harmful behaviour towards self and others belong to one cluster with high scores on all 3 types of behaviour. Pertinence to this cluster for younger and older girls is predicted by depressive mood, negative learning attitudes, and worse relations with teachers, while lower scores on social values and higher scores on material values are predictors among older girls.

## ***2.4 Discussion***

As it was expected some gender differences of harmful behaviour revealed in this study support previous findings in the literature. It is seen from the empirical data that male students are more prone to substance use than females through all period of adolescence. Boys are tend to use tobacco, alcoholic beverages and other illicit drugs more frequent than girls, and they consume higher amount of substances (Wetzels et al., 2003; Goštautas, 2004; Kokkevi et al., 2007).

Data of the study revealed that suicidal thoughts and attempts are more prevalent in the boys group than among girls. This is a rather unexpected result, and one that disagrees with the data of ample studies on this topic (Goštautas, Šeputytė, 2003; Fergusson, Woodward, Ridder, 2005; Sourander, Helstela, Haavisto, Bergroth, 2001; Vermeiren Ruchkin, Leckman, Deboutte, Schwab-Stone, 2002; Žemaitienė, Zaborskis,

2004), but most of these studies fail to cover for analysis the entire period of adolescence. When the scale of suicidal behaviour is used, gender differences remain non-significant. Such results are in line with findings of other authors who investigated suicidal behaviour in specific sub samples (Galaif, Chou, Sussman, Dent, 1998; Hukkanen et al., 2003; Madu, Matla, 2003; Wild et al., 2004). This suggests that either the studied group (students of one region in Lithuania) is special, or suicidal behaviour has a broader definition in this study, possibly meaning that girls foster stronger feelings of hopelessness, but demonstrate less suicidal thoughts and attempts than boys.

Higher prevalence of aggressive behaviour is observed among boys in comparison with girls. This is in hand with the results of previous research (Boxer, Tisak, Goldstein, 2004; Ellickson, Saner, McGuigan, 1997; Malinauskienė, Žukauskienė, 2007).

Different cohorts of adolescents report similar rates of substance use, but the age effect is significant for use of all substances both among males and females. These results confirm dominant developmental trajectories in substance use during adolescence in Lithuania and abroad. Substance use successively grows during school years (Goštautas, 2004).

Controversial results on changes of suicidal behaviour during adolescence are reported in literature. After different analysis of results are combined data shows that suicidal behaviour has little of changes from 5<sup>th</sup> to 12<sup>th</sup> grades. Students studying in the 5<sup>th</sup> to 7<sup>th</sup> grades report higher suicidal behaviour than older students, with the level of suicidal behaviour levelling out in all age groups following the 8<sup>th</sup> grade. An assumption can be made that adolescents of different ages are faced with the same learning conditions in schools, which can serve as either a buffer or an incentive for suicidal behaviour. On the other hand, young adolescents are more vulnerable, because they face new challenges in school settings and in their most immediate milieu, but lack coping skills (Reuter, Kwon, 2005; Zaborskis, Makari 2001).

The developmental trajectory of aggressive behaviour was found for both genders, with a peak during the 8<sup>th</sup> and 10<sup>th</sup> grade. These results are consistent with some previous research data (Fabio et al., 2006; Hussong et al., 2004; Malinauskienė, Žukauskienė, 2007). Adolescents may choose to behave aggressively, because they expect acceptance by peers, and later in adolescence they find more delicate ways to

achieve this goal, thus a decrease in aggressive behaviour in the population. It has to be noted that the studied sample can not represent the entire adolescent population, as some students who leave school after the 10<sup>th</sup> grade were not included. Inclusion of this specific sub-sample of students could result in different findings of developmental trajectories of aggressive behaviour.

In conclusion, harmful behaviour towards self and others becomes more prevalent during adolescence, but its different forms have different developmental trajectories.

In order to verify and extend the *Theory of Problem Behaviour*, results are operationalized as follows: if substance use, suicidal and aggressive behaviour are highly interrelated and are predicted by the same psychosocial variables, then those behaviours compose one problem behaviour syndrome.

The study revealed that substance use, suicidal and aggressive behaviour is related: if one form of behaviour increases, other forms of behaviour increase as well. Such results allow explaining harmful behaviour towards self and others as one syndrome, where through social relations, an adolescent's engaging in some specific behaviour increases the likelihood of engaging in others, as they are learned together with a referent group (Jessor, 1987; Costa, 2005).

Cluster analyses are run for a more comprehensive analysis of relations among forms of harmful behaviour towards self and others. Results revealed different results for boys and girls. Two clusters found among girls (cluster with no harmful behaviour towards self and others and cluster with a high level of all forms of this behaviour) extend the understanding of problem behaviour syndrome, illustrating that substance use, suicidal behaviour, and aggressive behaviour are interrelated. A presumption can therefore be made that prevention targeted at one form of behaviour will reduce the probability of engaging in other problem behaviours as well.

A different cluster solution is found for boys, which indicates that suicidal behaviour can not be considered as a part of the problem behaviour syndrome. Even though results reveal links among forms of harmful behaviour towards self and others among boys, two groups of boys can be distinguished according to data – one with boys who have high substance use, and one with boys scoring high on aggressive behaviour. A portion of boys in the two groups displayed no suicidal behaviour, whereas others

scored even higher on suicidal behaviour than on other behaviours. Boys' suicidal behaviour has to be considered as a different kind of behaviour, which probably is caused by variables other than social opportunities of getting involved in learning behavior. This is consistent with ideas of other authors who state that suicidal adolescents may differ from each other: some of them behave aggressively towards other people, other have mood problems (Andrews, Lewinson, 1992).

Contrary to expected results, only few psychosocial factors are related to all forms of harmful behaviour towards self and others. Depressive mood, poor relations with teachers and negative learning attitudes are significant in predicting substance use, aggressive and suicidal behaviour. It can be assumed that any harmful external behaviour may be an indicator of an adolescent's internal state (Fortin, 2003; Malinauskienė, Žukauskienė, 2007). These results can be applied in prevention of harmful behaviour towards self and others. An adolescent's emotional state at school should receive due attention, and communication problems with teachers might indicate that an adolescent is in need of help.

Other psychosocial factors studied in this research can be considered to be specific to one particular form of behaviour. Orientation towards hedonistic or egocentric values and lack of pro-social values predict substance use and aggressive behaviour (Arsenio, Lemerise, 2001; Goštautas, 2004; Piko, 2005). It seems that adolescents tend to follow their value orientation until being overcome by a subjective feeling of desperation. Self-esteem is positively related to substance use, but negatively related to suicidal behaviour. Poor self-rated health is significant in prediction of substance use, while good self-rated health – in prediction of aggressive behaviour. Similar results are consistent with results of few previous studies (Fergusson et al., 1995; Larsson et al., 2002; Malinauskienė, Žukauskienė, 2007).

Few psychosocial factors significantly predicted only one type of behaviour. Difficulties in abstract thinking are related to suicidal behaviour. Other authors think that students with low cognitive abilities can not anticipate the outcomes of their own behaviour, therefore critical situations are perceived as unchangeable (Portes Sandhu, Longwell-Grice, 2002). Poor living conditions predict only substance use, but not other behaviours in adolescence. Contradictory results on relations between substance use and

socioeconomic status or other indicators of living conditions are presented in literature (Fergusson et al., 1995).

In conclusion, results of this study allow confirming the *Theory of Problem Behaviour*, but only partly expand it. Suicidal behaviour among girls can be considered a part of the problem behaviour syndrome. Developmental trajectories of substance use, aggressive and suicidal behaviour take different shapes during adolescence, which also disagrees with the main idea of the theory. Finally, a list of psychosocial factors, which have different links with substance use, aggressive and suicidal behaviour, makes it difficult to expand the understanding of the problem behaviour syndrome.

### ***2.5 Conclusions***

1. Boys are more prone to harmful behaviour towards self and others than girls: boys tend to use tobacco, alcohol and other illicit drugs, behave aggressively and demonstrate higher suicidal behaviour, but only those studying in the 5<sup>th</sup> through 7<sup>th</sup> grades.
2. Harmful behaviour towards self and others has different transitional trends from the 5<sup>th</sup> to 12<sup>th</sup> grades. Substance use became more prevalent for students of both genders. There are no changes in suicidal behaviour until grades 9<sup>th</sup> – 10<sup>th</sup>, with suicidal behaviour seen to abate even more later on. Aggressive behaviour peaks during grades 8<sup>th</sup> – 10<sup>th</sup>, however does not differ in junior and senior grades.
3. Changes in harmful behaviour towards self and others occur due to the age effect, but not the cohort effect.
4. The relationship among forms of harmful behaviour towards self and others has been determined: higher substance use and higher aggressive behaviour predict suicidal behaviour; higher substance use and higher suicidal behaviour predict aggressive behaviour; higher aggressive and suicidal behaviours predict substance use, but other psychosocial factors have more substantial value than suicidal behaviour in predicting substance use.
5. Psychosocial factors are related to harmful behaviour towards self and others:
  - 5 A. depressive mood, worse relations with teachers and negative learning attitudes predict all three forms of harmful behaviour towards self and others;

higher material values and lower social values predict only substance use and aggressive behaviour;

5 B. some psychosocial factors have a reverse relationship with different forms of harmful behaviour towards self and others: worse self-rated health predicts substance use, better self-rated health – aggressive behaviour, lower self-esteem predicts suicidal behaviour, higher self-esteem – substance use;

5 C. some psychosocial factors hold specific value in predicting harmful behaviour towards self and others: mistakes in abstract thinking tasks predicts suicidal behaviour, while worse living conditions predict substance use, but do not hold significant independent value in predicting other forms of harmful behaviour towards self and others.

6. There are different groups of students according to links between forms of harmful behaviour towards self and others:

6 A. two groups emerge in the population of girls: those, who display no harmful behaviour towards self and others, and those, who scored high on each form of harmful behaviour towards self and others; harmful behaviour towards self and others among girls is predicted by depressive mood, negative learning attitudes, worse relations with teachers;

6 B. three groups are revealed in the population of boys: those, who display no harmful behaviour towards self and others, and those, who scored high on substance use and aggressive behaviour, but low on suicidal behaviour (this behaviour is predicted by depressive mood, lower self-esteem, and poor relations with teachers), and those, who have high scores on substance use, aggressive behaviour, and especially high scores on suicidal behaviour (this behaviour is predicted by worse relations with teachers, high material values, and low social values).

7. The results of this research partly expand the Theory of Problem Behaviour. Suicidal behaviour in adolescence might be understood as a component of a problem behaviour syndrome, but only in the girls' group. Harmful behaviour towards self and others has different developmental trajectories. Only some psychosocial factors are associated with all three forms of harmful behaviour towards self and others.

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## **5. INFORMATION ABOUT THE AUTHOR**

Laura Šeibokaitė is born 12 August, 1978 in Ukmergė, where graduated from 5th secondary school. She graduated with bachelor degree in psychology at Vytautas Magnus University in 2000, after graduated with master degree in psychology (program – Health psychology) in 2002. In 2002 – 2006 studied in doctoral degree program at VMU. Since 2004 the author of dissertation works as an assistant in Department of Theoretical Psychology at VMU.

The author of dissertation participated in research project „Assessing youth in Buffalo county for promoting positive decision making“ in 2004. For purpose of this project author stayed for 2 months at University of Nebraska at Kearney, USA. Data of

American students gathered during this visit were used for comparative analysis of harmful behaviour towards self and others in Lithuanian and American students. Results of this analysis are presented in international conferences.

The author is treasurer of The Union of Lithuanian Health Psychologists (since 2000) and the member of European Health Psychologists Association (since 2005).

Research interests: developmental psychology, problem behaviour in adolescence, risky behaviour in adolescence and adulthood.

## 6. REZIUOMĖ

Savižudybės, tabako, alkoholio ir kitų narkotinių medžiagų vartojimas, nusikaltimai prieš kitus asmenis Lietuvoje laikomos vienomis svarbiausių visuomenės sveikatos ir gerovės problemų (Fortin, 2003; Gailienė, 2000; Lietuvos statistikos metraštis, 2007; Makela, 1998; Nacionalinės Sveikatos Tarybos metinis pranešimas, 2005; Peto, Lopez, Boreham, Thun, Heath, 1993; Sweeting, Young, West, Der, 2006).

Save ir kitus žalojantis elgesys prasideda dar vaikystėje ar paauglystėje. Vienetiniai sporadiniai savižudybės atvejai pasitaiko jau 10-14 metų amžiaus grupėje (Lietuvos vaikai, 2007). Eksperimentavimas priklausomybę sukeliančiomis medžiagomis prasideda vaikystėje, ir vartojimo dažnumas nuosekliai auga visu mokymosi mokykloje laikotarpiu tiek Lietuvoje, tiek kitose pasaulio šalyse (Finn, 2006; Goštautas, 2004; Maggi, Linn, Marion, 2005; Wills, Sandy, Yaeger, 2002). Agresyviai elgtis vaikai pradeda labai anksti, o jau paauglystėje agresyvus elgesys tampa žalingas kitiems asmenims. 2006 m. Lietuvoje nepilnamečiai yra padarę daugiau kaip 4 tūkstančius nusikaltimų ir nusikalstamų veikų (Lietuvos statistikos metraštis, 2007).

Tokia mirčių struktūra ir paaugliams būdingo elgesio ypatumai save ir kitus žalojančio elgesio priežasčių ir susijusių veiksnių tyrimams paauglystės laikotarpiu suteikia ypatingos svarbos. Nepaisant to, kad psichologijos mokslininkai ypatingai daug dėmesio skiria narkotinių medžiagų vartojimo, savižudiško ir agresyvaus elgesio įvairių aspektų analizei, mažai bandoma sintezuoti nagrinėjamus reiškinius siekiant rasti bendrus mechanizmus, kurie paaiškintų save ir kitus žalojantį elgesį kaip vieną biopsichosocialinį konstruktą. Viena iš nedaugelio teorijų psichologijoje, kuri įvairių narkotinių medžiagų vartojimą, agresyvų elgesį, ankstyvą seksualinį elgesį traktuoja kaip probleminio elgesio sindromo komponentus, yra R. Jessor *Probleminio elgesio teorija* (Jessor, 1987; Costa, 2006). Šiame darbe nauja tai, kad tabako, alkoholio ir kitų narkotinių medžiagų vartojimas, savižudiškas ir agresyvus elgesys suprantamas ir empiriškai tiriamas kaip vienas reiškinys. Savižudiško elgesio įtraukimas į *Probleminio elgesio teorijoje* aprašytą modelį yra svarbi darbo inovacija.

Darbas taip pat naujas tuo, kad tabako, alkoholio ir kitų narkotinių medžiagų vartojimo, savižudiško ir agresyvaus elgesio kitimai nagrinėjami toje pačioje mokinių populiacijoje ir visu paauglystės laikotarpiu. Tarptautinėje mokslinėje spaudoje duomenys apie save ir kitus žalojančio elgesio kitimus yra arba neapimantys viso

paauglystės laikotarpio, arba gaunami tiriant skirtingas paauglių imtis (Scheidt, Overpeck, Wyatt, Aszmann, 2000; Zaborskis, Makari, 2001). Kita vertus, Lietuvoje duomenų apie šio elgesio kitimus viso paauglystės laikotarpio metu yra nedaug, ir kadangi kultūriniai save ir kitus žalojančio elgesio skirtumai yra reiškingi (Wild, Flisher, Bhana, Lombard, 2004; Reuter, Kwon, 2005; Zaborskis, Makari, 2001), atskleisti kitimai gali būti svarbūs planuojant save ir kitus žalojančio elgesio prevenciją tiek paauglystėje, tiek suaugusiajame amžiuje.

Šio darbo **tikslas** – nustatyti save ir kitus žalojančio elgesio kitimus paauglystės laikotarpiu ir išskirti psichosocialinius veiksnius, susijusius su šiuo elgesiu; patikrinti *Probleminio elgesio teorijos* pritaikymo galimybes save ir kitus žalojančiam elgesiui paaiškinti.

### **Ginamieji teiginiai**

1. Tabako, alkoholio ir kitų narkotinių medžiagų vartojimas, savižudiškas elgesys bei agresyvus elgesys sudaro vieną probleminio elgesio konstrukta.
2. Visos save ir kitus žalojančio elgesio formos (tabako, alkoholio ir kitų narkotinių medžiagų vartojimas, savižudiškas elgesys bei agresyvus elgesys) susiję su tais pačiais psichologiniais ir socialiniais veiksniais.
3. Paauglystės laikotarpiu daugėja save ir kitus žalojančio elgesio, tačiau elgesio pasireiškimo forma kinta.

Darbe pristatomi tęstinio (nuo 2003 m. iki 2005 m.) mokinių psichologinių sveikatos rodiklių kitimų tyrimo duomenys. Tyrimas atliktas vykdant VDU Teorinės psichologijos katedros mokslinį projektą, suderintą su Ukmergės rajono savivaldybės švietimo skyriaus ir tirtų mokyklų administracija. Tyrimas apėmė visų šešių Ukmergės miesto (3 vidurinių, gimnazijos ir 2 pagrindinių) mokyklų visus 5 – 12 klasių mokinius, tyrimo metu dalyvavusius pamokose. Iš viso nagrinėjamų duomenų masyvą sudaro 8183 tiriamieji. Šiame darbe nagrinėjami 2003, 2004 ir 2005 m. tyrimų duomenys.

Save ir kitus žalojančio elgesiui ir su juo susijusiems veiksniais tirti naudojamas klausimynas, sudarytas iš kelių ankstesniuose moksliniuose tyrimuose aprobuotų klausimynų. Vienas iš tokių A. Goštauto 1998 m. sudaryta metodika paauglių psichologiniams funkcionavimo aspektams didelėse grupėse tirti (Goštautas, Šeputytė, 2003). Šiame klausimyne sudarytų skalių patikimumas yra aukštas ir tinkamas didelių grupių tyrimui. Šiame darbe naudojamos modifikuotos skalės – įtraukti patikslinamieji

klausimai, naujai tikrinamas skalių patikimumas (Goštautas, Šeibokaitė, 2003). Kita dalis klausimyne naudotų klausimų paimta iš tarptautinėje Kauno – Roterdamo Intervencijos Studijoje (KRIS) aprobuotų sveikatos ir su sveikata susijusio elgesio klausimų (Glazunov, Dowd, Baubiniene et al., 1981), kurie Lietuvoje naudoti ir aprobuoti tolimesnių tyrimų. Atskiroms klausimyno skalėms naudojamas R. Kettel asmenybės klausimynas (16 asmenybės faktorių, 1979), taip pat A. Goštauto ir A. Goštauto (1996) skalė vertybinėms orientacijoms matuoti (Goštautas, Goštautas, 1996).

Atlikus tyrimo rezultatų analizę gautos šios **išvados**:

1. Berniukų save ir kitus žalojantis elgesys labiau paplitęs nei mergaičių. Jie labiau linkę vartoti tabaką, alkoholį ir kitas narkotines medžiagas, labiau linkę elgtis agresyviai, 5 – 7 klasėse labiau linkę į savižudišką elgesį.
2. Save ir kitus žalojantys elgesys nuo 5 iki 12 klasės keičia pasireiškimo formą: didėja berniukų ir mergaičių tabako, alkoholio ir kitų narkotinių medžiagų vartojimas, savižudiškas elgesys nekinta iki 9 – 10 klasės, o po to mažėja, o agresyvus elgesys padidėja 8 – 10 klasėse, o jaunesnėse ir vyresnėse nesiskiria.
3. Save ir kitus žalojančio elgesio kitimai atsiranda dėl amžiaus įtakos, bet ne dėl kohortos efekto.
4. Nustatytas ryšys tarp save ir kitus žalojančio elgesio formų: dažnesnis tabako, alkoholio ir kitų narkotinių medžiagų vartojimas ir labiau išreikštas agresyvus elgesys prognozuoja savižudišką elgesį, dažnesnis tabako, alkoholio ir kitų narkotinių medžiagų vartojimas ir labiau išreikštas savižudiškas prognozuoja agresyvų elgesį, labiau išreikštas agresyvus ir savižudiškas elgesys prognozuoja tabako, alkoholio ir kitų narkotinių medžiagų vartojimą, tačiau psichosocialiniai veiksniai yra svarbesni tabako, alkoholio ir kitų narkotinių medžiagų vartojimo prognozei nei savižudiškas elgesys.
5. Psichosocialiniai veiksniai yra susiję su save ir kitus žalojančiu elgesiu:
  - 5 A. pablogėjusi nuotaika, prastesni santykiai su mokytojais ir neigiamas požiūris į mokymąsi prognozuoja visas tris save ir kitus žalojančio elgesio formas; išreikštos materialinės vertybės ir neišreikštos socialinės vertybės prognozuoja tabako, alkoholio ir kitų narkotinių medžiagų vartojimą bei agresyvų elgesį;
  - 5 B. kai kurie psichosocialiniai veiksniai yra priešingai susiję su save ir kitus žalojančio elgesio formomis – prastesnė subjektyvi sveikata prognozuoja tabako,

alkoholio ir kitų narkotinių medžiagų vartojimą, geresnė subjektyvi sveikata – agresyvių elgesį, prastesnis savęs vertinimas prognozuoja savižudišką elgesį, geresnis savęs vertinimas – tabako, alkoholio ir kitų narkotinių medžiagų vartojimą;

5 C. kai kurie psichosocialiniai veiksniai yra specifiški konkrečiai save ir kitus žalojančio elgesio formai – abstraktus mąstymo klaidos prognozuoja savižudišką elgesį, o prastesnės gyvenimo sąlygos – tabako, alkoholio ir kitų narkotinių medžiagų vartojimą, tačiau neprognozuoja kitų save ir kitus žalojančio elgesio formų.

6. Egzistuoja skirtingos mokinių grupės pagal save ir kitus žalojančio elgesio formų ryšius:

6 A. išskiriamos dvi mergaičių, kurioms nebūdingas save ir kitus žalojantis elgesys ir kurios pasižymi išreikštu visų trijų formų save ir kitus žalojančiu elgesiu, grupės; mergaičių save ir kitus žalojanti elgesį prognozuoja pablogėjusi nuotaika, neigiamas požiūris į mokymąsi, prasti santykiai su mokytojais;

6 B. išskiriamos trys berniukų grupės: tie, kuriems nebūdingas save ir kitus žalojantis elgesys; tie, kuriems būdingas išreikštas narkotinių medžiagų vartojimas ir agresyvus elgesys, tačiau neišreikštas savižudiškas elgesys (šis elgesys susijęs su pablogėjusia nuotaika, žemu savęs vertinimu, prastais santykiais su mokytojais); ir tie, kurie pasižymi išreikštu narkotinių medžiagų vartojimu, agresyviu elgesiu ir ypatingai išreikštu savižudišku elgesiu (šis elgesys susijęs su prastais santykiais su mokytojais, vyraujančiomis materialinėmis vertybėmis ir socialinių vertybių stoka);

7. Šio tyrimo rezultatai tik iš dalies papildo probleminio elgesio teoriją. Savižudiškas elgesys paauglystėje gali būti mergaičių, tačiau ne berniukų, probleminio elgesio sindromo dalis. Save ir kitus žalojančio elgesio formos kinta skirtingomis trajektorijomis. Tik dalis psichosocialinių veiksnių yra susiję su visomis save ir kitus žalojančio elgesio formomis.

#### APIE AUTORE

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kvalifikacinį laipsnį, o 2002 m. – Sveikatos psichologijos magistro kvalifikacinį laipsnį. 2002 – 2006 m. studijavo VDU psichologijos krypties doktorantūroje. Nuo 2004 m. dirba VDU Teorinės psichologijos katedros asistente.

Disertacijos autorė 2004 m. dalyvavo tiriamajame projekte „Jaunimo įvertinimas Buffalo apskrityje siekiant sustiprinti pozityvių sprendimų priėmimą“. Dalyvaudama šiame projekte autorė du mėnesius viešėjo Nebraskos universitete Keryje, JAV. Vizito metu surinko amerikiečių mokinių anketinius duomenis, kurie buvo naudojami palyginamajai Lietuvos ir JAV mokinių save žalojančio elgesio analizei, šios analizės rezultatai pristatyti tarptautinėse mokslinėse konferencijose.

Autorė yra Lietuvos sveikatos psichologų sąjungos išdininkė (nuo 2000 m.) ir Europos sveikatos psichologų asociacijos narė (nuo 2005 m.).

Interesų sritys: raidos psichologija, probleminio elgesio ypatumai paauglystėje, rizikingas elgesys paauglystėje ir suaugusiame amžiuje.