

## **Abstract**

**Title:** Environmental determinants of goal orientation and its relation to health and risk behaviour of secondary school students

**Introduction:** Goal orientation is motivation and ability to set realistic goals, make feasible plans and take action aimed at achieving the goals. Apart from proven benefits in terms of school achievements, taking effective goal-oriented actions is a determinant of appropriate development and formation of mature personality. Goal orientation strengthens the sense of control over one's life and self-efficacy beliefs of teenagers.

The paper consists of a theoretical and research parts. The theoretical part comprises a review of motivational theories including the key elements of goal orientation. In search of the place of goal orientation in pedagogy, a reference was made to constructivist theories of learning. The role of shaping metacognitive skills, including goal orientation, which are conducive to self-regulation of learning, was highlighted. A reference was also made to adolescence-specific developmental changes which may affect the ability to set goals and striving to achieve them. The concept of the paper was based on Urie Bronfenbrenner's Ecological Systems Theory. The impact of closer (family and school) and more distant (neighbourhood) learning and upbringing environments was taken into account, as well as their interactions in supporting and defining the direction of teenagers' development, including the shaping of goal orientation. Referring to theoretical concepts of health, health promotion and prevention of risky behaviour, attention was paid to the need to reinforce personal resources as an element of supporting the positive development of teenagers.

**Aim and scope of research:** The main aim of the paper is to analyse environmental determinants of goal orientation and its association with health and risky behaviour of school youth. The overall level of goal orientation of school youth in Poland and its average level in individual schools was estimated. Environmental determinants of goal orientation of teenagers were analysed, taking into account the factors related to school, family and neighbourhood environment. The relation between goal orientation and overall satisfaction with life, selected aspects of mental, social and physical health, as well as risky behaviour, was analysed. The way in which school environment moderates the relation between goal orientation and risky behaviour of teenagers was also verified. The analyses were performed taking into account the gender and grade of the analysed lower secondary school pupils.

**Methods:** The analysis was based on data collected under a research project of the National Science Centre, implemented in the years 2014-2017 at the Institute of Mother and Child in Warsaw. Two questionnaires were used: (1) Student Questionnaire which included the Goal Orientation (GO) scale and questions to evaluate the psychosocial school environment from the perspective of a student, questions regarding the opinion about family environment and characteristics of local environment (neighbourhood); (2) School-Level Questionnaire, including a set of questions to evaluate the psychosocial school environment from the perspective of headmasters. The data were analysed using simple and complex methods of statistical analysis: Chi-square tests; Student's t-test; one-way analysis of variance (ANOVA); hierarchical linear regression; logistic regression; general linear model with evaluation of 2<sup>nd</sup> and 3<sup>rd</sup> level interaction effects.

The main tool used in the paper is the goal orientation scale from the study on indicators of positive development of children and youth (Flourishing Children Project). The tool consists of five questions with a score of 0 to 20. At the preliminary stage of the analysis, the psychometric properties of the scale were tested, indicating its reliability ( $\alpha$ -Cronbach=0.888) and one-way structure.

**Subjects:** The study was conducted from April to May, 2015. The data concerned 2850 students from 51 lower secondary schools from 14 Polish voivodeships (apart from Lubelskie and Kujawsko-Pomorskie voivodships), including 1308 boys and 1542 girls. The number of students from subsequent grades was 950 (grade 1), 953 (grade 2) and 947 (grade 3). The age of subjects was between 13 to 17 years ( $M=14.92$  years;  $SD=0.88$ ). Questionnaire surveys were conducted in an auditory survey in classrooms or school computer rooms, after prior obtaining the consent of parents. In 24.9% of schools it was a traditional paper survey, while in 72.1% it was an online survey (Lime Survey app).

**Major results:** The goal orientation level in the analysed sample was  $12.8\pm 4.74$  points on average, while averages for schools ranged from 10.4 to 15.4 points. No significant association of GO with gender, and a significant association with the grade attended by the youth were found. The GO level is similar in the extreme school grades and the lowest among the students of the second grade. Factors related to family environment, as well as factors of school environment and neighbourhood environment have an impact on goal orientation. With the positive level of those factors, the average goal orientation of teenagers increases significantly. In particular, very good quality of family relations ( $15.0\pm 4.8$ ), as well as subjective belief in one's good learning competences ( $15.8\pm 4.1$ ) and satisfactory interpersonal relations in the

neighbourhood ( $14.5 \pm 4.6$ ) contribute to improvement of goal orientation. As part of multivariate analysis, the linear regression model was estimated, where 10 independent variables explain 26.7% of goal orientation variability. The most important predictors with a positive correlation with goal orientation include family relations, competences and school achievements and social capital of the neighbourhood. Compared to the low level of goal orientation, its higher level contributes to a significant increase of the odds for high satisfaction with life (8-fold increase), high self-confidence level (6-fold increase) and is conducive to pro-social behaviour (4-fold increase). The comparison of extreme categories of goal orientation shows an approximately 2-fold reduction in the risk of experiencing stronger physical ailments and the current use of tobacco and alcohol. Adjusted for other factors, goal orientation remains one of more important predictors of the three positive indicators of health. The protective effect of high goal orientation against the current use of psychoactive substances by youth and the occurrence of stronger physical ailments disappears after adding environmental factors to the model. In addition, several examples pointing to school environment as the factor moderating the association between goal orientation and health of teenagers were presented. In some examples, gender is an additional moderator. The impact of risk factors and protective factors may accumulate. The most beneficial health indicators and reduction of risk behaviour are observed among students with high goal orientation, who also positively assess the educational, upbringing and emotional characteristics of the school, and have good learning achievements. The improvement of goal orientation is a factor eliminating the defects of the school environment.

**Conclusions in brief:** The analysis of research results allows to conclude that family, school and neighbourhood where young people live contribute to strengthening their predispositions to take goal-oriented action. When conducting activities in the area of health promotion and prevention of risky behaviour, attention should be paid both to the closest and to more distant characteristics of the adolescents' living environment, which complement each other and directly or indirectly influence the development and behaviour of youth. Based on the obtained results, the need to create a positive school climate, conducive to development, should be emphasized, which, on the one hand, will motivate to take goal-oriented actions, and, on the other hand, will contribute to meeting emotional needs of teenagers. An important suggestion for pedagogical practice, which stems from the analyses, is the need to incorporate the elements of goal orientation into educational activities, both in order to further improve learning competences and in health education of youth. In the process of education and upbringing,

including education of parents, it is worth paying attention to the need to take care of the quality of family relations, and to present the methods and techniques of working with a child that contribute to improvement of goal orientation.