

Evaluace primárněpreventivních intervencí v ČR: Realizované výzkumné studie



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SOUHRN: *Vývoj a implementace primárněpreventivních intervencí v České republice prochází složitou cestou. Setkat se je možné jak s různě kvalitní adaptací zahraničních programů, tak s vývojem původních intervencí. Bohužel je velmi rozšířeným nedostatkem neadekvátně zpracovaná dokumentace těchto intervencí znemožňující hlubší evaluaci přípravy a procesu. Současně je relativně nízká publikační kultura a dostupnost dokumentace. S tím úzce souvisí často téměř nemožná realizace evaluace dopadů/efektivity takových programů, která má kořeny jednak v insufienci dokumentace, ale též v nízkém zájmu realizátorů o provedení evaluace a v slabé ekonomické a politické podpoře provádění tohoto druhu evaluace. Autoři se proto zaměřili na průzkum domácí literatury a provedli šetření, jaké studie byly za posledních 20 let v České republice publikovány a které splňují alespoň základní kritéria provádění evaluačních studií preventivních intervencí z hlediska evaluace dopadů/efektivity. Identifikováno bylo celkem 5 studií (jedná se o programy: Kouření a já, Komunitní program na Praze 6, Přípravení na život, Drogy-Důvod-Dopad, Unplugged). V textu představujeme současnou situaci v oblasti provádění evaluace efektivity preventivních intervencí v České republice z perspektivy konkrétních realizovaných studií. Tyto studie jednotně popisujeme včetně metodiky, kterou byly provedeny příslušné evaluační studie, a k jakým výsledkům dospěly. Soubor uvedených studií tvoří jakýsi pomyslný základ dobré praxe v této oblasti výzkumu a může být nejen inspirací pro další podobné studie, ale především pomoci více systematizovat budoucí aktivity na tomto poli a posloužit jako základní teoretická i praktická báze.*

KLÍČOVÁ SLOVA: EVALUACE – PRIMÁRNÍ PREVENCE – RIZIKOVÉ CHOVÁNÍ – ÚČINNOST

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Evaluation of the Drug Prevention Interventions in the Czech Republic



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SUMMARY: The development and implementation of prevention interventions in the Czech Republic have experienced a number of challenges in the Czech Republic. It is common for such interventions to be inappropriately documented, precluding thorough preparation and process evaluation. In addition, the publication standards and the availability of the documents are rather poor. The insufficient documentation, the deliverers' lack of interest in the evaluation being conducted, and the low level of economic and political support also make it almost impossible to carry out an evaluation of the impact/effectiveness of such programmes. Therefore, the authors searched the Czech literature in order to ascertain what studies have been published in the Czech Republic within the past 20 years and which of them meet at least the general criteria for the implementation of evaluation studies of preventive interventions in terms of the evaluation of impact/effectiveness. A total of five studies were identified. They pertain to the following programmes: "Smoking and Me", "Community-based Programme in the Prague 6 District", "Skills for Adolescence", "Drugs-Reason-Impact", and "Unplugged". The article provides an outline of the current situation concerning the implementation of the evaluation of the effectiveness of prevention interventions in the Czech Republic as reflected by the specific studies that have been carried out. Each study is consistently described, including the methodology used to undertake the respective evaluation study and the results it generated. The set of studies that is presented constitutes a presumable "good practice" base for this sphere of research which may, first and foremost, help in the better systematisation of future activities in this field and serve as both a theoretical and practical foundation, as well as inspiring other similar studies.

KEY WORDS: EVALUATION – PREVENTION – RISK BEHAVIOUR – EFFECTIVENESS

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● 1 INTRODUCTION

Since early 1990s, school-based prevention of risk behaviours has experienced tumultuous developments in the Czech Republic, marked by pioneering prevention efforts that have been gradually systematised. Improvements have been achieved in both, practice (e.g. new types of evidence-based programmes, better coordination standards, the better exchange of experience, and collaboration between providers) and theory (e.g. more evaluation studies covering the evaluation of process and implementation, more study literature, and a greater extent of educational activities) (Miovsky et al., 2010). A key milestone in the development of evaluation activities was the first attempt to create standards for the quality of school-based prevention programmes and to initiate a broad public discussion on such standards (Miovsky & Van der Kreeft, 2002). This discussion evolved into the first officially approved and published version of the national standards for the quality of school-based drug prevention, which the Ministry of Education put into practice in 2005 (Ministry of Education, 2005) together with a system of quality certification of these programmes. Significantly, obtaining the certificate of quality became a precondition for drug prevention programmes' eligibility for financial support from the government. In the above-mentioned document, the Czech Ministry of Education stipulates that the main objective of specific prevention interventions is to prevent drug use per se or, at least, delay the first experience of drugs until an older age. Another goal is to reduce or stop experimentation with drugs and thus prevent various drug-related health and social consequences which may require treatment or other interventions (Ministry of Education, 2005, p. 5). Well-planned and effective prevention strategies combine universal prevention programmes with selective and indicated interventions (Lejckova, 2006).

Evaluation constitutes a significant component of the implementation of any preventive measures. Different approaches to the evaluation of prevention programmes may be adopted. There are different models for addressing and assessing these programmes (Springer & Uhl, 1998). On one hand, there is the extreme notion of rejecting unified standards for the programmes (i.e. a single concept of quality criteria) and emphasising only the evaluation of the impacts of these programmes on the target group. Another option is to compare and investigate various models of prevention approaches and programmes so as to define the general criteria of quality and proceed to compare other programmes to such criteria, or compare the degree to which the individual criteria are met (Miovsky et al., 2004). In principle, however, it is essential to determine what is measured by the given evaluation project and how.

● 2 EVALUATION OF PREVENTIVE INTERVENTIONS

There is a large number of definitions of this term, each highlighting a different aspect of evaluation. One of the possible definitions (emphasising the so-called "formative" approach) underlines the improvement of interventions as the purpose of evaluation. Accordingly, the evaluation of a programme involves a process of defining, collecting, analysing, and interpreting information useful for decision making (EMCDDA, 2000). Naturally, there are scores of other reasons why evaluation should be carried out. One of the essential reasons is our interest in the effects/impacts of a prevention programme, including its potential side effects (what else, apart from the fulfilment of the main objective, may have been affected, in what way, and to what extent). Many studies are specifically conducted for programme designers and donors to find out whether the programme works in the way they expected, i.e. the focus is on the outcomes of the programme. As a result, evaluation may facilitate the better planning of future activities or may describe the actual process of programme implementation, or evaluate the way in which funds were utilised (Springer & Uhl, 1998).

Evaluation methods¹ differ according to the purpose for which the result of the evaluation should be used. The main objective of *formative evaluation* is to identify the strengths and weaknesses of the preventive intervention under evaluation and propose changes which result in eliminating or improving the weaknesses (WHO, 2000). Formative evaluation, however, seeks exclusively to improve or enhance the performance (of the programme, facilitator, etc.), not to impose sanctions for mistakes or other shortcomings that may be found. On the other hand, *normative evaluation* results in such "political" consequences as the discontinuation of the programme, sanctions being imposed on the programme deliverers for shortcomings, and lower subsidies being granted in the next round of subsidy proceedings. This type of evaluation is also referred to by some authors as summative evaluation. Both of these general approaches to evaluation vary significantly in their methodological and epistemological perspectives and assumptions, and these differences need to be respected in their practical application (Kröger, 1998).

Evaluation strategies may also be differentiated on the basis of their focus on various stages of the implementation of a preventive intervention (Kröger, 1998). The implementation of each successful and effective preventive activity should be preceded by a phase of thorough planning and

1/ For a more detailed account of the topic see also Miovsky et al., 2004, or Miovsky et al., 2010.

preparation of such an implementation. During the *evaluation of preparation*, we particularly look into how well a programme is prepared before being launched. Thus, evaluation is especially concerned with the status of the preparatory documentation and any other preparatory steps (Jerfelt, 1998). Process evaluation focuses on the actual implementation of the programme and constitutes a relatively difficult part of evaluation. The individual steps (parts) of the intervention are assessed with regard to the preparatory phase. Finally, outcome evaluation studies the impact of an intervention on the target group defined in the preparatory stage of the project. In terms of impact, we may measure variables such as the changes in the attitudes and knowledge of the target group. What is most important, however, is to measure behavioural changes. A programme may be interesting and may meet with a positive response from the target group and/or the deliverers, but what really matters is whether it produces the desired change in behaviour, i.e. whether we can capture such a change by means of our research instruments and prove that it was caused by the preventive intervention that was applied rather than by other factors. In addition, we can examine the context in which the intervention exerts its influence; that is, for example, under what conditions the effect is greater/smaller, which subgroups show a greater/smaller effect (and why), what can be used to facilitate the effect and how it can be maximised by a combination of different interventions, for example.

Kröger (1998) distinguishes three basic types of evaluation according to the research design used as postulated by Rossi, Freeman, and Hofman – experimental, quasi-experimental, and non-experimental. *An experimental type of evaluation* involves the use of experimental and control groups selected by random sampling whose variables prior to and after the intervention (or while the intervention is still in progress, where applicable) are assessed (measured). Finally, the outcomes (difference) achieved in the experimental group (subjected to the experimental intervention) and the control group (exposed to no intervention) are compared. *Quasi-experimental evaluation* implies that the selection of experimental and control groups is not made on a random basis but follows certain requirements or criteria; purposive sampling is often used in quasi-experimental design (Bryman, 2001). *Non-experimental evaluation* does not usually involve a control group; only the group exposed to a preventive intervention is studied.

In order to make the above categorisation complete, we should also mention economic evaluations, including cost analysis, i.e. the determination of the overall costs of implementing a specific preventive measure, and cost-benefit analysis involving a comparison of the overall costs incurred in relation to the implementation of a specific preventive measure and the benefits that have been gained.

The application of these types of analyses is rather demanding and requires expertise in finance and special methods for the calculation of the different types of costs. A specific category comprises studies focusing on cost-effectiveness (Godfrey & Parrott, 1998), which are used to assess the overall impact of a project (the outcomes of the intervention on the target group) and compare it to the circumstances (costs) under which the outcomes were achieved. How the outcomes may be enhanced may also be looked into (for example, whether a specific parameter may be adjusted in order to achieve a better or more sustainable outcome of a preventive intervention with a minimum additional increase in costs).

● 3 EVALUATION OF PREVENTION PROGRAMMES IN THE CZECH REPUBLIC

The goal of our investigation was to assess the outcome evaluation studies of preventive interventions that have been carried out and published in line with common scientific standards. Studies concerning both, original Czech programmes or adaptations of foreign programmes, were included. The authors sought to provide consistent descriptions of the studies identified from the literature, including the description of methods used as well as results. The set of studies that is presented constitutes a presumable “good practice” base for this sphere of research which may, first and foremost, help in the better systematisation of future activities in this field and serve as both, a theoretical and practical foundation, as well as inspiring other similar studies. We searched the Czech literature in order to ascertain what prevention intervention evaluations have been published in the Czech Republic within the past 20 years, while meeting the general scientific criteria. A total of five studies were identified. They pertain to the following programmes: “Smoking and Me”, “Community-based Programme in the Prague 6 District”, “Skills for Adolescence”, “Drugs-Reason-Impact”, and “Unplugged”. They are described below in greater detail.

The first broad discussion and interest in the evaluation of prevention in the Czech Republic may be traced back to the period 1999-2000 and associated with the publication of the outcomes of the First European Conference on the Evaluation of Drug Prevention, which took place in Portugal from 12 to 14 March 1997 (Miovsky et al., 2010). The initiation stage of the collaboration with the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) in Lisbon and the transfer of EU countries’ experience in this field played a significant role in this process (Baker, Mounteney, & Neaman, 1998). Not only has the last decade seen the gradual development and implementation of prevention programmes, but, importantly, the broader implications of this process and its significant correlations have begun to be discussed at the levels of both the European

drug policy strategy and the national strategies. Considerable resources have been invested in prevention at both the European and national levels. The question is whether the interventions delivered really generate the desired effect.

From the international perspective, the prevention situation in the Czech Republic is quite interesting. If one looks at the developments in the 1990s as marked by efforts to catch up with some of the Western European countries, the past decade has moved the Czech Republic into a different position. Not only was it one of the first EU countries to open discussion on shared quality standards, but it proceeded to advance such discussion to the implementation stage, followed in 2005 by the approval (MŠMT, 2005) of national quality standards linked to the certification process and further to subsidy proceedings.² In parallel to this process, the first effectiveness studies began to emerge in order to provide research evidence of the effectiveness of the interventions being delivered. Nowadays, we rank among the countries that have adopted progressive and rational approaches in this respect. At the very least, this process may be viewed as a process of the continuous improvement of the standard of research and the translation of its findings into practice. However small it may be and although it may show frequent excesses and inconsistencies within the system, it is fair to recognise what deeply rooted superstition this approach faces and that the process has not been much faster or shown different characteristics in any other country. The following summary of “good practices” provides a brief description of several examples of research studies which demonstrate what was stated above, as well as presenting the first body of experience that may be built on.

● 3 / 1 Evaluation of the “Smoking and Me” Programme

Intervention under evaluation

The “Smoking and Me”³ project represents a non-smoking education programme for pupils at the senior level of basic schools. In addition to broadening their knowledge about the effects of both active and passive smoking on health, the pupils in the sixth to ninth grades of basic, special, and secondary schools with 6- and 8-year academic programmes are provided with opportunities to shape their attitudes to any drugs and learn the skills needed to reject them (Hruba & Kachlik, 2000). The intervention teaches the pupils to identify risk situations and marketing tricks and, in particular, it develops their abilities to make determined decisions about their lifestyle. The programme methodology is based on a peer approach, where the role of the teacher

mainly lies in facilitating the activities performed by small groups of pupils, summarising the outcomes of their work, providing additional information, and guiding opinions and situations. A detailed manual for education professionals/programme deliverers was developed to explain the methodology. Utilising various visual aids and models, the entire programme comprises a total of six lessons (45 minutes), the topics of which build on each other. The lessons are delivered at intervals of 14 days to one month (Hruba & Kachlik, 2000).⁴ The programme was supported by a grant of the Ministry of Health of the Czech Republic, recognised by the Ministry of Education, and guaranteed by the Society for Public Health and Community Medicine of the J. E. Purkyně Czech Medical Association.

Evaluation study

Type(s) of evaluation and study design used: Outcome evaluation in the form of a quasi-experimental study and formative process evaluation (of the project’s pilot stage) were used (Hruba, 1997).

Study description: Outcome evaluation: a total of 355 basic schools from 15 districts of the Czech Republic were involved (Hruba & Kachlik, 2000).⁵ The formative process evaluation was undertaken during the first two years of the testing of the methodology, when student facilitators exchanged their experience of the delivery of the programme in classes at regular meetings, which helped in creating the final version of the programme (Hruba, 1997).

Sample and sampling method used: The sample comprised a total of 6051 pupils⁶ (there were 2888 and 3169 children in the experimental and control groups, respectively). The schools were selected and contacted by study implementers and also by means of local public health offices in the districts where collaboration at this level had already been established and, following their consent, were included in the study.

Data collection instruments: An anonymous questionnaire was administered to conduct the survey. It contained questions about smoking behaviour, the consumption of alcoholic beverages, drunkenness, and the use of other substances during the summer holidays (the key criterion used to evaluate the effectiveness of the programme). The questionnaire was complemented with questions addressing the issues of children’s sexual behaviour (such as forced sexual intercourse and offers of money for sex, participation in pornography, or sex with an adult) and experi-

2/ For more information on the Standards of the Ministry of Education visit.
3/ “Kouření a já” in Czech.

4/ See also http://www.khspce.cz/index.php?nad=n3&cla=ipp_koureni1

5/ Specifically: Blansko, Jihlava, Karviná, Klatovy, Kolín, Mladá Boleslav, Most, Nový Jičín, Olomouc, Ostrava, Šumperk, Tábor, Zlín, Kutná Hora, and Český Těšín.

6/ It was the fourth time the pupils had been tested in the eighth grade, i.e. in the third year of the implementation of the programme.

ence with gambling machines and bullying. Random saliva samples were taken for fictitious testing for nicotine/cotinine residues.

Control for other preventive interventions that may influence the outcome: N. A.

Results

The interim results of the evaluation of the programme indicate that it is successful in exerting an influence on the rise in the prevalence of smoking among pupils. The prevalence of non-smokers, occasional smokers, and regular smokers in the experimental group shows a statistically significant difference from that in the control group. During the holidays between the eighth and the ninth grades, the group exposed to the programme showed a statistically significantly larger number of non-smokers in comparison to the control group (58% of smokers versus 53% of non-smokers, $p < 0.05$). The control group also showed statistically significantly higher rates of repeated experimenting with cigarettes and regular smoking (18.6%) than the experimental one (14.3%, $p < 0.01$). The overall prevalence of children who smoked in schools delivering the programme increased by 15.7% in the control group, as compared to the experimental group with 11.3% increase ($p < 0.01$). No significant differences between the two groups were found as regards the prevalence of drinking, drunkenness, illicit drug use, experience with gambling machines, bullying, and sexual activity. Nevertheless, the interim results suggest a significant association between smoking behaviour on one hand and the consumption of alcohol and other drugs and gambling on the other hand. The children who smoke on a regular basis were also found to show significantly higher rates of risk behaviour than those who have only experimented with smoking (Hruba & Kachlik, 2000).

Evaluation of the publications reporting on the results of the project

One limitation of the study is the sampling procedure used, which creates a certain bias as a result of the schools being included on the basis of pre-sampling carried out by local public health offices rather than the process of standard randomisation according to a specific algorithm being used. No other potentially preventive interventions delivered in schools (other interventions applied in schools to the experimental groups, in parallel to the study intervention, as well as those applied in schools to the control groups which have not been exposed to the intervention being tested) were looked for. This may have biased the results to a certain degree, although the total size of the sample helps to offset this possible source of error.

● 3 / 2 Evaluation of the Community-based Prevention Programme in the Prague 6 District

Intervention under evaluation

The study intervention was developed and is delivered by the Prevention Centre, *Prev-Centrum*, a civic association, a Prague-based NGO which is responsible for the implementation of a comprehensive programme of prevention of drug addiction and other forms of risk behaviour. The intervention focuses on direct work with children and young people and their parents and teachers and on educational activities. The components of the intervention are interrelated with respect to the specific characteristics of each target group. In 2002 four levels of the intervention were designated to match the target groups: universal prevention, selective prevention, indicated prevention, and educational activities (Stel & Voordewind, 1998). The programme consists of an educational component, a peer programme, life skills training, and a parents' programme. These components are integrated into a single unit provided within a broad framework as a community-based programme delivered practically throughout the whole of the territory of the Prague 6 District. The implementation of the programme involves long-term collaboration with education professionals in the participant schools, the adjustment of conditions in these schools, and the engagement of parents and the community (Miovsky et al., 2007).

Evaluation project

Type(s) of evaluation and study design used: The project, which set out to evaluate the outcome/impact of the intervention (in combination with formative process evaluation), was conceived in the late 1990s and was carried out as a quasi-experimental research study with a control group.

Study description: A combination of the school-based prevention programme and the community-based programme developed by the *Prev-centrum* NGO and implemented in the territory of the Prague 6 District (the programme was also incorporated as a "best practice" example into the EDDRA (Exchange on Drug Demand Reduction Action) system operated by the European Monitoring Centre for Drugs and Drug Addiction [EMCDDA]) was tested. The study featured two branches. One tested the effectiveness of the intervention by means of comparing the experimental and control groups (test-retest). The first and second retests were conducted two (halfway through the delivery of the intervention) and four years after the pre-test (12 months after the completion of the intervention) respectively. The project was supported by the Czech Science Foundation (GACR) and other governmental entities on both the national and local levels.

Sample and sampling method used: The study sample consisted of 619 and 559 children in the experimental and control groups, respectively. The experimental group was not randomised, as all the schools included in the study had implemented the study intervention. Partial randomisation was used to compile the control group, which was to comprise schools that had not implemented the programme and were located in city districts with characteristics similar to those where the experimental group schools were based. Simple random sampling in combination with purposive selection (location-specific purposive selection in the first round, simple randomisation in the second round) was used.

Data collection instruments: Evaluation was conducted by means of a pretest and a subsequent retest undertaken 12 months after the completion of the intervention, using a questionnaire measuring attitudes, knowledge, and behaviour indicators (see also Miovský et al., 2006). Specifically, the ESPAD (European School Survey Project on Alcohol and Other Drugs) questionnaire, adapted for the purposes of the study, was used; knowledge was tested using a questionnaire developed by the designers of the study.

Control for other preventive interventions that may influence the outcome: Only the general parameters were looked for using survey questionnaires completed by school prevention workers (for both the experimental and control groups).

Results

The project (Miovsky et al., 2007) showed a relatively low effect at the general population level. Despite controlling for other related factors (e.g. thanks to the combination with qualitative methods intended to examine the wider context of the intervening variables such as peer relationships, class/school climate, and parents' perceived attitudes), it was not possible to cast more light on the reasons for the poor outcome in terms of universal prevention. On the other hand, it was extremely useful to find that the programme shows very good outcomes and great effectiveness at the selective prevention level, i.e. that it has a strong influence on certain vulnerable groups of children (such as those affected by an incomplete family, conflicts, or poor communication within the family) as far as the following indicators are concerned: the past-month prevalence of the use of spirits, drinking more than three glasses of spirits on the last occasion that they had drunk, the purchase of spirits in the past month, and the past-year prevalence of marijuana use (at a 95% significance level). It was shown, hence, that the first evaluation of this programme indicated that it can generally be considered an effective selective-prevention intervention and that its individual components need to be reinforced in such a way as to boost its ef-

fect at the universal prevention level (e.g. by combining it with an evidence-based intervention producing the desired effect at that level).

Evaluation of the publications reporting on the results of the project

While the project was not much reported in professional journals, it served to verify the methodology and to prepare review texts that were published later in a book (e.g. Miovsky et al., 2010). The major publication pertaining to the study is an article describing its main results broken down according to the high-risk groups (Miovsky et al., 2007). The limitations of the study include its poor theoretical analysis and the insufficiency of the description of the intervention (which encompasses a complex combination of different methods), including the absence of a journal article providing the relevant description, and the dubious external validity resulting from the small number of schools implementing the intervention and the related impossibility of carrying out a large-scale comparison of its implementation practice (e.g. by comparing schools from large and small towns or those with different specialisations and parameters in terms of the children and the setting).

● 3 / 3 Evaluation of the "Skills for Adolescence" Programme

Intervention under evaluation

An interesting project undertaken in the Czech Republic was the "Skills for Adolescence"⁷ school-based prevention programme, adapted from the original U.S. Lions Quest programme "Skills for Adolescence". It is based on Weisberg's theory of socioemotional development (Asher et al., 1984) and had already been tested for effectiveness in the past (see, for example, Eisen et al., 2003). In 2003 and 2004 the first study of the Czech version was carried out (Jacobsova et al., 2004). The Czech version was adapted from the fourth edition of the original American Lions Quest programme "Skills for Adolescence" (NIDA, 2003). The adapted version of the programme comprises four components: training in social skills consisting of 102 lessons, service learning (promoting collaboration, care, and concern for others), a community segment (involvement of family members and the local community in the educational process), and the development of a positive school climate. Drug prevention-specific lessons were incorporated within these components (a principle similar to that followed in adapting the Unplugged programme, for example; see Section 3.5. below).

7/ "Připravení pro život" in Czech.

Evaluation project

Type(s) of evaluation and study design used: A quasi-experimental pilot study was conducted (Jacobsova et al., 2004). Based on the pre-test/post-test principle, and with no control group being used, it combined outcome/impact evaluation with formative process evaluation.

Study description: The main objective of the study was to test the result of the adaptation (process evaluation) of the school-based prevention programme "Skills for Adolescence", as well as assessing the impact of the programme on the children (outcome evaluation).

Sample and sampling method used: The study was carried out on a sample of 337 pupils (with boys and girls accounting for 53.4% and 46.6%, respectively) in the sixth grade of basic school. The study included only schools (seven in total) that had implemented the programme (as it does not include control groups, the design only makes it possible to compare the schools involved in the programme and measure the study variables prior to and after the intervention had been applied). The basic training of all the staff and the management of the implementation study were provided by a team from the Faculty of Education of Charles University in Prague.

Data collection instruments: An anonymous questionnaire was administered prior to the intervention (October and November 2003) and following its completion (the end of May and the first half of June 2004). It was filled in as part of a lesson using external collaborators. The questionnaire contained 48 items, including those inquiring about the children's basic sociodemographic data, their use of alcohol, tobacco, and illicit drugs, and their interaction with their social environment. In some items, the children were asked to respond using a five-point scale, while others were designed as True-False questions. The questionnaire was developed as part of a study focused on the evaluation of the study programme undertaken by the Urban Institute (Washington DC, USA).

Control for other preventive interventions that may influence the outcome: N. A.

Results

The effect of the intervention was assessed in terms of its impact on risk behaviour, health risk awareness, and popularity among peers (Jacobsova et al., 2004). On the basis of the outcome achieved, the authors find the effect of the programme generally positive, despite the fact that statistically significant differences were only identified as regards the prevention of marijuana use in the past 30 days and a rise in the awareness of smoking-related health risks. The prevalence for the past 30 days prior to the commencement of the intervention reached the following rates: alcohol use 31%, tobacco use 9%, and cannabis use < 1% ($p < 0.05$). After the intervention had been applied, the past 30-day preva-

lence showed the following levels: alcohol use 34%, tobacco use 9%, and cannabis use < 1% ($p < 0.05$). The authors used the non-parametric test of marginal homogeneity to compare the pre- and post-intervention status. All the study indicators showed higher levels prior to the implementation of the programme. However, the differences are statistically significant in four cases only. The best outcome was achieved for the indicators pertaining to cannabis use and the awareness of smoking-related health consequences.

Evaluation of the publications reporting on the results of the project

The published study (Jacobsova et al., 2004) comes under the pilot project category. It involved formative evaluation (for the purpose of the finalisation of the programme's implementation process) rather than the evaluation of the effect on the children. The factors that reduce the research value of the outcome are the failure to include a control group and to employ standard randomisation: only the schools situated in the region where the deliverers were operating were included on the basis of their interest and no control group was constructed to allow comparison with the study sample. Moreover, the publication fails to provide information about the controlling for other programmes delivered in schools participating in the study, which makes it impossible to ascertain which schools had other programmes, if any, that were being implemented at the time of the study, what they were, and to what extent they had been implemented. Undoubtedly, the most positive aspect of the study is the comprehensive information about the study intervention, including a detailed account of the history and the development of this method and its theoretical framework.

● 3 / 4 Evaluation of the "Drugs-Reason-Impact" Programme

Intervention under evaluation

This intervention was developed as part of the pilot school-based universal drug prevention project entitled "Drugs-Reason-Impact"⁸ (Kachlik & Matejova, 2004 and 2006). It was implemented by the Department of Special Education of the Faculty of Education of Masaryk University in Brno and the Department of Preventive Medicine of the Faculty of Medicine of Masaryk University in Brno in the period 1999-2002. The texts were written by Petr Kachlik, Halina Matejova, and Petra Hanelova at that time. The target group of the intervention comprised pupils in the seventh, eighth, and ninth grades of basic schools. The intervention was provided by teachers, trained facilitators, and students of the Faculty of Education. It consisted

8/ "DDD: Drogy-Důvod-Dopad" in Czech.

of a total of 20 lessons delivered over a period of three years. The methodology comprised 20 worksheets for pupils and 20 sheets of guidelines for education professionals and facilitators. Other supporting materials, such as posters and bookmarks, were also provided. The intervention addressed the following topics: Attitudes and values; Mood elevation induced by factors other than substances; Healthy lifestyle; Social interaction; From experimentation to addiction; Advertising; Refusal skills; Addictive substances; Smoking, alcohol, drugs – concept, history, tradition, and medicine; Leisure time activities and communication within the family; How much does addiction cost?; Drugs and road traffic; How can I help?; How can one succeed without drugs?, and My way.

Evaluation study

Type(s) of evaluation and study design used: A randomised controlled trial was used to study this school-based universal prevention intervention. The pilot study involved both outcome evaluation and formative evaluation (Kachlik & Matejova, 2004 and 2006).

Study description: Outcome evaluation: the study was conducted in a total of 10 basic schools located in the South Moravia region; five schools were exposed to the intervention, while another five schools were used as the control sample. The observations and experience of the education professionals and facilitators involved in the intervention were also assessed as part of the formative evaluation.

Sample and sampling method used: Randomisation was conducted at the school level. Both groups, experimental and control, composed of five schools each. The size of the sample for Year 1 was N=317, 52.37% boys, for Year 2 N=352, 50% boys, and for Year 3 N=267, 47% boys.

Data collection instruments: Data were collected using a 16-item anonymous questionnaire designed to assess the domains of knowledge, attitudes, and personal experience of addictive substances. The questionnaire was probably developed by the authors of the study. There were two versions of the questionnaire, one for the summer and one for the winter period. The questionnaires were administered prior to the commencement of the intervention and after it had been completed.

Control for other preventive interventions that may influence the outcome: Information not available.

Results

The outcome evaluation (Kachlik & Matejova, 2006) looked into the consumption of addictive substances (smoking cigarettes, drinking beer, wine, and spirits, drunkenness, and experimentation with illegal drugs) over the past six months. The authors found statistically significantly higher rates of the consumption of wine and liqueurs – not beer and spirits – in the control group ($p < 0.01$) after ap-

proximately 6 months from the baseline testing. The effectiveness of the preventive intervention was not strong, according to the authors. The intervention resulted in a statistically significant reduction in the number of regular smokers within the first year ($p < 0.01$). In the later stages of the study, an increase in the number of regular weekly smokers was also observed in the group exposed to the intervention. The authors used the results of the formative component of the evaluation to modify the intervention, the timetables, and the types of preventive activities.

Evaluation of the publications reporting on the results of the project

As published, the evaluation study (Kachlik & Matejova, 2006) shows several methodological shortcomings; these shortcomings are not addressed appropriately, at least not in the article. One major pitfall concerns the introduction of a totally new variable (the prevalence of drunkenness in the past six months) during the study. There is also no information specifying whether the sample was randomised into the experimental and control groups and how. During the study, the researchers made the data on the levels of substance use in the schools available to the schools, which may have resulted in a negative impact on the quality of the data generated by the subsequent investigation (a question about the ethical aspects of such a step may also be raised). Finally, other preventive measures that may have biased the outcome of the study intervention were not looked for.

● 3/5 Evaluation of the “Unplugged” Prevention Programme

Intervention under evaluation

The “Unplugged” prevention intervention is based on the comprehensive social influence (CSI) model (Sussman et al., 2004). Unplugged is a universal, school-based, teacher-delivered prevention curriculum. It is intended to target 6th-graders (typically 11-13 years old) who receive the intervention in 12 lessons spread over one school year (van der Kreeft et al., 2009). Trained teachers refer to the “Handbook for the Teacher” and the “Unplugged: Cards”, which provide them with all the necessary information for the successful delivery of the intervention (serving as an aid for the implementation of one lesson). Each student is equipped with the “Unplugged: Workbook”. The second revision of the intervention has been in use since 2007 in more than seven language versions, including English and Czech. For more information refer to van der Kreeft et al. (2009), Gabrhelik et al. (in press), Jurystova et al. (2009), and Adamkova et al. (2009).

Evaluation study

Type(s) of evaluation and study design used: As part of a pilot study, the authors conducted a formative experimental evaluation of both the outcome (Gabrhelik et al., in press) and the process (Jurystova et al., 2009; Adamkova et al., 2009). A prospective, school-based, randomised controlled prevention trial was used to assess the effectiveness of the European school-based universal preventive intervention on the risk of the use of alcohol, tobacco, inhalants, and illegal drugs among basic school children in the Czech Republic.

Study description: The goal was to assess the effect of the Unplugged intervention in the Czech Republic. There was one round of baseline testing prior to the intervention, with five subsequent follow-ups conducted over the course of 34 months (Gabrhelik et al., in press). Teachers in the intervention segment received training in the intervention (Adamkova et al., 2009).

Sample and sampling method used: Stratified random sampling in which the sample strata were derived from the number of residents in the school area was used. Schools were used as randomisation units. The baseline testing included 1874 6th-graders (11-13 years old) from 75 schools. A total of 1753 students participated in the final follow-up. Unique anonymous codes were used to track each student across all the rounds of the study. The differences between the experimental (N=914) and control (N=839) groups were calculated for each outcome examined as part of the outcome study.

Data collection instruments: The Czech version of the 2003 ESPAD (Csemy et al., 2006; Hibell et al., 2004) questionnaire was used to collect the self-report data. The questionnaire was completed under the supervision of trained research assistants within about 45 minutes. The primary outcome variables that were collected included: self-reported cigarette smoking in the past 30 days; daily cigarette smoking (6 or more cigarettes per day in the last 30 days); heavy cigarette smoking (20 or more cigarettes smoked per day in the last 30 days); any drunkenness (at least one episode of drunkenness in the last 30 days); frequent drunkenness (three or more episodes of drunkenness in the last 30 days); any cannabis use (any marijuana use in the last 30 days); frequent cannabis use (marijuana use 3 or more times in the last 30 days), and lifetime illegal drug use (any use of marijuana, heroin, amphetamine, ecstasy, LSD or hallucinogens, GHB, or tranquillisers without a medical prescription) (Gabrhelik et al., in press).

Control for other preventive interventions that may influence the outcome: Performed; see Adamkova et al. (2009). The fidelity of the Unplugged intervention in the intervention segment, as well as other substance abuse prevention activities independent of the trial, were moni-

tored. All 12 lessons (100%) were delivered in all the classes within the trial.

Results

According to the prevalence odds ratios, statistically significant intervention effects in the final follow-up were found for (Gabrhelik et al., in press): any smoking (OR=0.73, 95% CI 0.58-0.92); daily smoking (OR=0.62, 95% CI 0.41-0.93); frequent drunkenness (OR=0.57, 95% CI 0.38-0.87); any cannabis use (OR=0.67, 95% CI 0.46-0.97); frequent cannabis use (OR=0.46, 95% CI 0.26-0.81), and any drug use (OR=0.62, 95% CI 0.49-0.78). The results show marginal significance for heavy smoking (OR=0.43 95% CI 0.19-1.00 p=0.0513). The authors also present data on the number needed to treat (NNT), a measure showing how many individuals need to receive the intervention to prevent one additional event. The range of the NNT was from 14 for any drug use to 42 for any cannabis use and frequent cannabis use.

Evaluation of the publications reporting on the results of the project

The Unplugged intervention is an effective resource in preventing the use of alcohol, tobacco, and other drugs in schools and among basic school pupils in the Czech Republic. The main limitation of the study is the dropout of five schools (6.3%) from the control group before the baseline survey, with no replacement of those schools. Despite these shortcomings, the published study provides a major contribution to the growing body of evidence of effectiveness generated by the systematic evaluation of school-based prevention interventions. It is the first study of its kind in the Czech Republic which may be considered an example of good research practice and a "gold standard" for the evaluation of prevention programmes. The Czech version of the Unplugged prevention method may also be regarded as a cornerstone of the evidence-based evaluation of programmes concerned with the prevention of the use of alcohol, tobacco, and other drugs, the objective of which is to reduce the high levels of the incidence and prevalence of substance use among Czech adolescents.

● 4 CONCLUSION

The developments in the evaluation of preventive interventions experienced in the past 20 years in the Czech Republic show that this field has attracted attention, as demonstrated by the emergence of studies bearing comparison with those published abroad. While still limited in number, such studies have been duly published in professional journals and document the growing cultivation of this area of interest as a whole. The process may not be fast enough, but it does represent an initial response in terms of its practical use. These include the existence of a certification process and

the definition of quality criteria for school-based prevention (see the relevant website of the Czech Ministry of Education: <http://www.msmt.cz/socialni-programy/certifikace>) and the improvement of the publication culture pertaining to this field. The lack of proven specific instruments and the prevention professionals' abilities to use such instruments remain a general drawback of the Czech setting in this respect (in addition to the small number of well-tested programmes with published results). It should also be noted that the existing approach pursued in many countries, which completely ignores any serious evaluation of effectiveness in favour of the assertion of often ineffective, or even counterproductive, interventions, has provoked a wave of sceptical standpoints (see, for example, Saxe et al., 2006; Tighe & Saxe, 2006). Approaches to this issue and perspectives on it still differ dramatically from country to country, and, unfortunately, even platforms such as the Pompidou Group of the Council of Europe cannot solve this problem in an appropriate manner. This results in differences which often may seem huge: at the latest meeting of the representatives of this platform, for example, programmes which had been shown by research to have low

or almost no effectiveness were formally presented as feasible options. Despite the evidence against them, such programmes tend to be passionately advocated by some countries and continue to receive considerable resources. One of the research and intervention teams which have formed recently is that grouped around the EUDAP (European Drug Addiction Prevention Trial) project and focusing on the application of an evidence-based approach to prevention. The 2009 discussions led a part of the professional community involved in this field to initiate the establishment of a transnational professional association, making it possible to interconnect both individuals and teams. These efforts gave rise to the European Society for Prevention Research.⁹ Time will show whether activities such as these will really result in the ever-stronger promotion of the evidence-based and rational application of research results or whether irrational and ideological perspectives, going hand in hand with lobbyism and the purposeful manipulation of certain interest groups in this area, will continue to prevail.

9/ <http://euspr.org>

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