CORRELATION BETWEEN SPORT ACTIVITY AND DRUG-TAKING
AMONG 14 YEAR-OLD PRIMARY SCHOOL MALE AND FEMALE PUPILS IN SLOVENIA

Mateja Videmšek, Maruša Skubic*, Damir Karpljuk, Jože Štihec

Faculty of Sport, University of Ljubljana, Ljubljana, Slovenia
* Independent researcher

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The aim of this research was to establish whether there is a correlation between sport activity and drug-taking among 14 year old pupils. This research is based on a questionnaire of 38 variables and the probability relations among the variables have been tested by the chi-square.

Analysis has shown that 80% of male and 85% of female pupils practice sport in their leisure time. On average, they practice sport 2 to 3 times a week. The majority of male pupils practice sport competitively (39%), while female pupils primarily practice not officially organized recreational sports (48%). As for smoking, 4% of the male and 12% of the female pupils smoke, the majority of the male pupils had their first cigarette at the age of 13, female pupils at the age of 12. Regarding alcohol use, 90% of the male and 94% of the female pupils had tried an alcohol beverage, which means a majority of pupils between ages 10 and 13. As far as drugs are concerned, 18% of the male and 26% of the female pupils tried drugs. The prevailing types of drug-taking are vapor inhaling, pills and marijuana. The majority of pupils said they had tried smoking, drinking alcohol and taking illicit drugs out of curiosity. Parents mainly encourage their children to practice sport. The majority of pupils think that sport and smoking do not go together, they are of the opinion that sport activities are those activities that could discourage drug-taking.

We have ascertained that is no statistically significant correlation between sport activities and taking drugs both legal and illicit drugs. However, a statistically characteristic correlation has been ascertained with regard to drinking alcohol in the case of male pupils (beer and wine) and inhaling vapors in the case of female pupils. Differences would be probably more evident at a later time – the transition from primary to secondary school. To discourage young people from drug-taking, both legal and illicit, they should be offered more activities so that they can spend their free time in a reasonable and qualitative way.

Keywords: Sport activity, drug-taking, pupils.

INTRODUCTION

Like elsewhere in the world, drugs in Slovenia are more and more widespread and so is their usage. It cannot be said how far the usage of legal and illicit drugs will go since there hardly is a limit or it cannot be set. Numerous arguments and discussions within the expert as well as lay circles cannot give an answer to the question as to where the drug abuse, leading so many especially young people to intoxication, will stop and end. Many experts talk about the “drug addict obsession” seizing the entire world and sphere – the poor as well as the rich, from North to South, East and West. There is hardly any intact place left on this planet, where drugs would not find their way (Berčič, Tušak, & Karpljuk, 2003).

The widespread state of tobacco smoking, taking drugs and drinking alcohol in Slovenia could easily be compared to the state in other relatively developed countries. The number of young people who experiment and are addicted to drugs is bigger from day to day. The main characteristics of these problems are increasing health, social and legal problems as a result of drug-taking, especially heroin and lately ecstasy and cocaine. The number of addicts and their relatives seeking help and joining in various forms of medical treatment is growing (Turk, 2002). There is a highly increased number of young adults seeking help in educational institutions and other institutions for young adults with behavioral disturbances. In the past, drug abuse was associated only with the so-called risk groups of young people. According to the number of young people who try or take drugs, it is evident, that experimental drug-taking is more and more making its way to younger and younger people, since the average age of first attempts is decreasing (Kastelic & Mikulan, 1999).

Family is the one agent informing children about the standards of a wide socio-cultural environment, helping them to build the system of values, which are being passed on from generations as educational messages.
All that happened in the family in early childhood and adolescence, is “indelibly” part of the adolescent’s personality and closely related to his/her behavior in the period of adolescence, often also in maturity. Family is the fundamental and most important micro social environment, where a child is growing to be mature and is gaining first experiences in life. Family is where the child’s physical and motor development starts, its intellectual emotional and social “potentials” which later on can positively or negatively reveal the child’s attitude towards drugs (Kogovšek, 1999). Studies have shown that a family has a balanced combination of love and educational discipline, which acts preventively. An adolescent needs the feeling of being loved even though positive socialization also requires limitations. It is important that parents and children communicate – the communication must be sincere, and parents should find a suitable moment to talk to their children about drugs as well.

The majority of people who take drugs start taking them in the most vulnerable period of growing up – adolescence. This is the period when the majority of young people go to school and do many things, not being certain if they will ever do them again later. The period from starting school to adolescence is getting shorter and shorter. Perhaps it is this rapid growing-up, which often passes them by, the reason why young people cannot plan their spare time and are often bored, are displeased with themselves and do not respect themselves – all of which can perhaps lead to a desire to have fun in a different, more dangerous way. Adolescence is also considering the meaning of life and searching for one’s own self (Zaletel-Kragelj, 2004). The age 13 to 14 is the period when adolescents usually start experimenting with drugs. The coeval or group pressure is high – those who take drugs are prone to encourage members of the group to do the same. The influence of parents is getting weaker. Adolescents disagree with them in many things, they are reluctant to obey parents’ authority and keep secrets. It is also the period of numerous changes in physical appearance, adolescents are highly occupied with themselves and are worried about their appearance. The expectations from their parents and the community are growing, therefore, adolescents often lack confidence and self-confidence (Tomori, 2003).

The most widespread drugs among adolescents are still alcohol and tobacco. The results of a research project by the European bureau of WHO, which included 162,000 young people (aged between 11 and 15) from 35 countries have shown, that 23.2% of girls and 22.5% of boys aged 15 have declared themselves to be regular smokers. These results rank Slovenia fourth (Drole, 2004). Between 1995–2003, the percentage of young people who start smoking at the age of 11 or earlier markedly increased. Almost one third of those who in 2003 stated they have smoked, smoked their first cigarette when they were 11 or younger. Boys start smoking earlier than girls. The most critical years for girls to start smoking are the ages between 13 and 15 (Stergar, 2004).

Research shows that young people very well know how smoking affects health, however, the latent period (mostly ages between 25 and 30) when serious health problems may occur is too far away for them (Lampret, 2004). Despite that, health problems may occur already in young people. The CDC (Centers of Disease Control and Prevention) data indicates that the lung capacity of young people who smoke is lower than of those who do not smoke. Smoking namely interrupts the lungs’ growth. Early signs of cardiovascular diseases appear quite quickly in young people. Smoking weakens a person’s physical shape so the endurance and motor abilities of young people are lower. The resting heart-beat rate of young smokers compared to non-smokers is faster by 2 to 3 beats per minute. Young smokers suffer from shortness of breath three times more often. They are eight times more likely to smoke marijuana, twenty-two times more likely to take cocaine and three times more likely to drink alcohol (Stergar, 2000).

Alcohol is a drug causing 57,000 adolescents in Europe to die in car accidents every year. In Slovenia, driving under the influence of alcohol causes every third car accident with a death toll. To decrease these numbers, all of us must strive to decrease the consumption of alcohol, primarily among adolescents. We should be aware that the consumption of alcohol among adults influences the attitude of adolescents towards alcohol and other drugs (Rogl, 1995).

Drug addicts are rarely found among groups of people who reject drugs for their special interests and goals (Videmšek, Karpljuk, & Debeljak, 2000). Undoubtedly, sport activities represent an important factor in preventing drug-taking. Most people begin taking drugs in their youth and become addicted easily. Therefore, it is important to offer young people a number of various healthy activities, among which sports activities undoubtedly belong (Shapiro, 1994). Appropriate sport activities can most efficiently restrain drug-taking attempts, where on the other hand, wandering and strolling around with friends can only accelerate the progress of this bad habit. A healthy life style represents a very important aspect in education, which begins at home and continues in kindergarten and school and finally extends into a form of self-education. The problem of drug-taking among young people should not be solved as a sole problem, but rather in the scope of caring for young people in general (Primic-Žakelj, 2002).

The aim of this research was to analyze sport activities among pupils, determine their attitude towards drugs and ascertain whether there is a correlation be-
between sport activity and drug-taking. We were interested in finding out if those young children who are more active in sports less frequently take legal or illicit drugs.

**METHODS**

**Sample of subjects**

The sample of subjects studied here includes 14 year old 8th grade pupils – 163 male and 177 female pupils. The study includes pupils from 9 different primary schools in Slovenia.

**Sample of variables**

This research is based on a questionnaire of 38 questions on sport and drugs, adapted for 14 year old pupils.

The questionnaire includes the following questions:

- Sex.
- Last year’s school report.
- Are your parents divorced?
- Are you active in sports in your spare time?
- How often do you practice sport?
- What kind of sport activity do you do?
- Are your parents active in sport?
- Which sport do you do in your spare time?
- Do your parents encourage you to be active in sports?
- How do you mostly spend your spare time?
- Do you smoke?
- How old were you when you had your first cigarette?
- How many cigarettes a day do you smoke?
- If you smoke, how long have you been smoke regularly? / How long do you usually smoke at a time?
- Do your parents smoke?
- Do the friends you spend your spare time with smoke?
- What were the reasons you tried smoking?
- Do you think sport and smoking go together?
- Where do you most often smoke?
- Have you ever tried alcohol beverages?
- Have you ever had these alcohol beverages?
- How often do you drink these beverages?
- How old were you when you first tried alcohol?
- Do your parents drink alcohol beverages?
- How often do your parents drink alcohol?
- What were the reasons you tried alcohol?
- Who offered you alcohol?
- Where do you most often drink alcohol?
- Can you have fun without alcohol?
- Do you know anyone who takes illicit drugs, such as cannabis, marijuana, hashish, ecstasy, amphetamines, heroin, cocaine, LSD…?
- Have you ever tried any of the following drugs?
- How old were you when you first tried one of the illicit drugs?
- Why did you try one of the illicit drugs?
- Where do you most often take illicit drugs?
- Are you familiar with how the illicit drugs work?
- Do you think sport activity can decrease drug-taking?
- What is, in your opinion, the most important reason young people start taking drugs?
- Which activities do you think would turn young people away from taking drugs?
- Do you think Slovenia does not have enough places for young people to have fun?

**Procedures**

The data has been processed by SPSS software (Statistical Package for the Social Sciences). Frequency and Contingency tables have been generated with the help of FREQUENCY and CROSSTABS sub-programs. The probability relations among the variables have been tested by the Chi-square.

**RESULTS**

The results have shown that 80% of male and 85% of female pupils practice sport in their spare time (Fig. 1). The majority practice sport 2 to 3 times a week (36% of male and 55% of female pupils). The majority of male pupils practice sport competitively (39%), the next sport activity is recreational sport, which is not officially organized. Almost one half of female pupils practice such recreational sports (Fig. 2). Male pupils primarily do basketball and football, while female pupils do dance, roller skating and taking walks.

With male pupils, almost one half, with female pupils a bit over one third of parents are not active in sport. There is about one third of parents, where both parents are active in sport. This research does not show that pupils whose parents are not active would statistically characteristically be less active in sport. Despite the fact that so many parents are not active in sport, it is encouraging that the majority of parents encourage their children to do sport.

This research indicates that most male pupils (37%) spend their spare time practicing sport or meeting friends. A little over one half of female pupils in the first place spend their spare time meeting friends and in the second place practice sport. Adolescence is the time when children push their parents away while their
friends are becoming more and more important. Despite that, it is encouraging that so many young people devote their spare time to sport.

Even though the results of WHO show that in Slovenia 23% of boys and girls at the age of 15 smoke (Drole, 2005), this research indicates that in primary schools, the percentage is much lower – 4% of male and 12% of female students smoke. We must emphasize though that the selected sample of subjects studied here is not a representative one for Slovenia and that children are one year younger. A similar research project studying children of the same age (Videmšek, Karpljuk, Štihec, & Debeljak, 2003) has shown, though, that 11.5% of the students smoke. These results are quite similar to those of nearly 20 years ago, where Debeljak and Kalan (1987) established that 9% of boys and 14% of girls aged 14 smoked.

A little over one half of the pupils questioned never tried smoking. The majority of male pupils had their first cigarette at the age of 13, females at the age of 12. The results have shown that there is no statistically characteristic difference between the frequency of sport activity and smoking. We cannot state that those who smoke are not that often active in sport. The majority of those who smoke, smoke on special occasions only and the time they have been smoking ranges form 1 to 6 months to two and more years. The primary reason why children start smoking is curiosity. Children want to know how a person feels when smoking. At the same time, they want to be liked, or do not want to be an exception among others. The coeval pressure is high in this period and it can influence the “smoking” habits of adolescents. With over one half of male and female pupils, none of their friends they spend time with smoke. With a little less than one half, some of their friends smoke.

There is a little over one half of the questioned children’s parents who do not smoke, and 10% where both parents smoke. Whether parents smoke or not, does not however influence the frequency of male and female pupils’ sport activity. The majority is of the opinion that sport and smoking do not go together.

According to the ESPAD survey, which collects data on alcohol and other drugs among 15 to 16 year old students in 35 European high schools, the number one drug is still alcohol. Over 90% of 15 to 16 year old students have tried alcohol (Lorenčič, 2004). The results of this research show that 98% of male and 94% of female 14 year old pupils have tried alcohol. They mostly drink alcohol once a month or less frequently, and first tried it between the age of 10 and 13. The main reason they have first tried alcohol is curiosity and it is the children’s parents who offered alcohol to the majority of pupils questioned. Of parents, 3/4 male and 4/5 female parents drink alcohol. The majority of the questioned pupils state they can have fun without alcohol.

The ESPAD survey shows that as many as 29% of the students have tried illicit drugs and 7% students are regular users (Lorenčič, 2004). The results of this research show that 18% of male and 26% of female pupils have tried drugs. The prevailing types of drug-taking are vapor inhaling, pills (e.g. sedatives) and cannabis (marijuana, hashish). The majority of pupils tried drugs at the age of 13 (8% of male and 16% of female pupils). Those who have tried drugs, say they first tried it for the same reason as cigarettes and alcohol – curiosity. The majority of pupils say they are familiar how drugs are harmful.

The answer to the question “What is in your opinion the most important reason young people start taking drugs?” almost one half answered it was the curiosity. The second most frequent answer was a desire to be accepted or approved by the coevals. The other answers were curiosity and an attempt to overcome emotional distress, depression, and anxiety.

Half of the pupils questioned are of the opinion that sport activities are those that would turn young people away from taking drugs, next would be the promotion of parties with no drugs and alcohol (Fig. 3).

Over 2/3 of male and 4/5 of female pupils think that there are not enough places for young people to have fun. In the future, we should make some changes to have such places for children and adolescents where they could gather and spend their spare time in a reasonable way.

We have ascertained that there is no statistically significant correlation between sport activities and taking legal and illicit drugs. However, a statistically characteristic correlation has been ascertained between sport activities and drinking beer and wine with male pupils, and inhaling vapors with female pupils. All the questions were related to trying and not regular usage of legal and illicit drugs.
**Fig. 1**
Are you active in sports in your spare time?

![Bar chart showing percentage of boys and girls who are active in sports](image1)

**Fig. 2**
What kind of sport do you do?

![Bar chart showing different types of sports](image2)

**Fig. 3**
Which activities you think would turn young people away from taking drugs?

![Bar chart showing percentage of boys and girls](image3)
DISCUSSION

The fact is that the problem of drug-taking cannot be entirely solved, but it could be reduced. The questionnaire was focused on 14 year old pupils who still visit the primary school. According to their age, quite a large number of primary school pupils smoke, drink alcohol or take drugs. The number will probably increase when these children get to a secondary school. In order to move in a positive direction, we need to be more active within the families, schools and local communities. Parents are those who raise their children from the start and pass their behavior patterns on to them. It is scientifically proven that children whose parents smoke, drink alcohol and take illicit drugs rather reach for such substances than not. In addition, passive smoking for example increases the possibility for children to get asthma and other chronic lung diseases, and even healthy children will, as adults, have a decreased lung capacity.

Lung capacity measurements of young athletes taken at medical examinations have shown an average lower result with those athletes who come from a smoking environment (Kopriva, 2002).

If parents are active in sport and have their children involved in sports as well, children will accept sport as part of their everyday life and spare time. Parents are also responsible to openly talk to and inform children about the drug-taking problem. A permissive attitude towards smoking and alcohol in a family, where in addition some of the parents smoke and drink too much alcohol, more likely causes children to start smoking or taking any other drugs. Experts recommend (Stergar, 2004) parents to start talking about smoking, drinking alcohol and taking drugs to their children when they are 5 or 6 years old, since many children have their first cigarette and an alcoholic drink very early. By then, they should be appropriately familiarized with drugs being unacceptable and harmful. Parents should tell their children how to turn down a cigarette and alcohol if offered and yet remain a “hero”. They should talk about commercials, publicity, the “true” messages, and wrong beliefs about drugs among young people (relaxation, body weight control, less harmful light cigarettes, mature appearance, better digestion...). Their educational attempts will certainly be more successful if their behavior will support what they are saying (Ivelja, 2004).

Also school plays an important part, after all, children spend a lot of their time there. It is important that the school is outward oriented, accepting encouragements from the environment and tries to respond to changes life brings inside and outside of the institution. With the support from the local community, schools should offer a lot of activities for children to expand their knowledge, abilities and skills and thus enable children to spend their spare time in a quality way, also during school holidays and vacation (summer, winter breaks). It is important that we become aware that the problem of drug-taking is increasing, along with which the age of drug-takers is decreasing. We need to act pre-cautionarily - have activities and promotions to inform children about the positive effects of sport activities on one hand, and danger and consequences of drug-taking on the other hand.

“Sport without drugs” should become a rule and a part of the moral of all who practice sport. A lot of attention is devoted to achieving better physical shape, with which the problem of drug-taking is also related. Besides, young people can massively be motivated and convinced to join sport. Most convincing are also medical reasons and particularly the reasons pertaining to one’s general appearance (Lampret, 2004). There is probably no boy who would not want to be liked by others or himself by the way he looks like. Tall figure, broad shoulders, large chest – this is the image almost every young boy dreams about. Scientists have however proved that drug-taking in the early ages impedes physical development and growth. It has been proved that individuals who started smoking early have smaller lung volumes than non-smokers. The effects of smoking and drinking alcohol are thus just the opposite of what young people would like to achieve. The behavior of young girls is even less understandable when they want to prove their equality to boys having a cigarette in their mouths and holding a glass of an alcoholic drink (Pečjak & Mohorko, 1995). Abusing their own health, having stinky clothes and hair, bad breath – all of these are the characteristics men least expect from an attractive young woman. Everybody fighting against smoking and drug-taking should take advantage of these facts (Videmšek, Karpljuk, Štihec, & Debeljak, 2003).

The fight against drugs continues and is seeking new methods that would enable a more healthy way of life among young people. Schools are nowadays participating in various projects with which young people are being motivated to promote sport and not drugs. Joining in this fight are also medical and other institutions pertaining to preventive and curative treatments (Kopriva, 2002). PE teachers should get involved more as well. In cooperation with parents, they could well use sport to restrain drug-taking and build upon a relationship towards sport activities. Deprecation, prevention, and prohibition of smoking among young people are undoubtedly means that can help reduce these bad habits. Despite that we are of the opinion that young people will be turned away from smoking by means of planning a quality way of life. People who are adequately occupied most likely fulfill their needs by taking part in appropriate activities and in this way do not feel the need for any kind of substitutes (Sullivan, 2004).

One of the most important factors influencing the decrease of drug-taking habits is providing appropriate and adequate activities for young people in their spare
time. It is the spare time that should be properly conducted and planned. Spare time should be fulfilled with activities that would fully engage each young individual. And sport activities should certainly find their place among them.

REFERENCES


však byla zjištěna u pití alkoholu v případě chlapců (pivo a víno) a inhalace látek v případě dívek. Rozdíly by zřejmě mohly být výraznější v pozdějším věku – při přechodu mezi základní a střední školou. Mladé lidí by bylo možno od užívání legálních i nelegálních návykových látek odradit nabídkou většího množství aktivit, které by jim umožňovaly trávit volný čas přiměřenějším a kvalitnějším způsobem.

Klíčová slova: sportovní aktivita, užívání návykových látek, žáci.

Dr. Mateja Videmšek, Ph.D.

University of Ljubljana
Faculty of Sport
Gortanova 22
1000 Ljubljana
Slovenia

Education and previous work experience
Works at department of basic sport pedagogy and didactics of Faculty of Sport in Ljubljana. Her research activities are focused on elementary sport education.

First-line publications