

## 7. SUMMARY IN ENGLISH

The use of both licit and illicit drugs is a great social, health, economic, legal and politic problem worldwide. In recent years, mainly Central/Eastern European countries have reported stable increase in the use of these substances. The Czech Republic belongs to such European countries.

Most surveys on alcohol and illicit drug use have been restricted to elementary and secondary school students (e.g. ESPAD). However, research has revealed that some university students drink excessive amounts of alcohol and experiment with illicit drugs of abuse both worldwide (e.g. Aertgeerts and Buntinx, 2002; Kuo et al, 2002; Marselos et al., 1997; Silva et al., 1994; Web et al, 1996, 1997) and in the Czech Republic (e.g. Bečková and Višňovský, 2000; Češný et al., 2004; Kachlík, 2005; Stryčková et al, 2001).

The dissertation thesis is therefore concerned on licit and illicit drug use among university students in the Czech Republic. Its general aim is to estimate the prevalence rates and examine changing patterns of licit and illicit drug use among these students, and to compare results with previous local, multi-regional and international studies among university students. The evaluation of the use of addictive substances was performed through the questionnaire-based survey. This survey was supplemented by toxicological urinalysis.

In academic years 2002/3 – 2005/6, the questionnaire-based survey was performed at thirteen faculties of eight universities in seven regions of the Czech Republic. Anonymous standardized questionnaires were personally administered to students during their registration at the beginning of the academic year or during seminars with obligatory participation of students. A total number of 3,484 university students completed and returned the distributed questionnaires. The number of females was higher (more than 70 %) than that of males. Average age of students was 20.8 years (range: 18 – 48).

44.1 % and 14.1 % of university students reported regular and hazardous alcohol drinking, respectively. 8.6 % and 20.2 % of students were regular and occasional tobacco smokers, respectively. The life-time prevalence of illicit drug use was 51.4 %. The most frequently used and available illicit drug of abuse was marijuana with the life-time prevalence 49.6 % of students, followed by hashish (14.2 %), hallucinogens (8.2 %), and ecstasy (5.9 %).

We found sex differences in both licit and illicit drug use. Illicit drug use as well as both regular and hazardous drinking patterns, and regular tobacco smoking was reported by higher proportion of males than females. A significant positive association between financial

situation and both licit and illicit drug use of students was found. Students with greater financial support drank alcohol, smoked tobacco and used illicit drugs more often and they reported drunkenness more frequently than their more indigent colleagues.

In 2004, the questionnaire-based survey was supplemented by toxicological urinalysis with the main aim to distinguish regular users of illicit addictive substances among university students from the students who had only experimented with these substances before entering university. Urine specimens were anonymously collected from the students of Charles University in Prague, Faculty of Pharmacy in Hradec Králové. Cannabinoids (THC), methylenedioxymethamphetamine (MDMA) and methamphetamine (MET) were searched for by simple, one-step, immunochromatographic assay for the rapid, qualitative detection. Preliminary positive analytical results were then confirmed by gas chromatography/ mass spectrometry.

150 urine specimens were collected, 67 students (i.e. almost one third of addressed students) refused to participate in the study. The average age of students was 21.7 years (range: 20 – 29). The number of females was higher (74.7 %) than that of males (25.3 %). The presence of THC was detected in 6 samples (i.e. 4.0 %), no evidence of MDMA and MET was found. A significant sex difference was estimated in the use of THC, with male samples being more positive than female ones.

The samples' positivity was lower than the life-time prevalence of cannabis, MDMA and MET obtained from the questionnaire-based study in the same group of university students. This discrepancy can be explained by several factors: mainly by the high number of students refusing participation in the study and the supposed irregular pattern of cannabis use in the group of pharmacy students (the use of other illicit drugs was very low in this group of students).

With regard to the results of both questionnaire-based survey and toxicological urinalysis, it can be said that more than one half of university students have tried illicit addictive substances during their life. However, these illicit substances (mainly cannabis) belong to the group of substances with acceptable health and social risk and students had usually tried them only once and before entering the university. On the other hand, the situation in the field of alcohol consumption can be considered as more alarming. A wide range of university students reported regular and hazardous alcohol drinking.