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Chronic Toluene Misuse Among Roma Youth in Eastern Slovakia

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Abstract

This report presents pilot data on toluene misuse among Roma (Gypsy) youth in eastern Slovakia. Twenty interviews were conducted with field social workers (FSWs) working in seven Roma settlements with a combined population of 17,050 people. An estimated 340 chronic toluene users, mostly males (90%, $n = 306$), were identified in the researched communities. FSWs reported that children younger than 10 years of age represented about 15% of users ($n = 52$) and that the majority of users (75%, $n = 255$) were between 10 and 25 years of age. Consequences of prolonged use on individuals and communities are discussed. The study's limitations are noted.

Keywords

Roma (Gypsy) minority; toluene misuse; sniffing/huffing; field social workers

INTRODUCTION

The Roma people—also known as Gypsies—are among the most stigmatized populations in modern Europe, suffering disproportionately from high rates of poverty, unemployment, illiteracy, crime, and disease (UNDP, 2002; UNICEF, 2007). In the Slovak Republic, the Roma minority makes up approximately 8% ($n = 432,000$) of the country's population of 5.4 million (Marcin in & Marcin inová, 2009). The majority of Roma live in rural slum settlements, which are often without running water and sewerage (Filadelfiová, Gerbery, & Škobla, 2006). The unhealthy living conditions are further exacerbated by high rates of smoking and drinking, and in some communities also by sniffing or huffing of toluene, which is a volatile solvent found in paint thinner (Mušinka, 2007). Other reports have found that volatile substance misuse (VSM) is common among those of low socioeconomic status

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Declaration of Interest

The authors report no conflicts of interest. The authors alone are responsible for the content and writing of the article.

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and among youth, which is primarily due to the low cost and widespread availability of products containing volatile substances (Edwards et al., 2007; Oetting & Webb, 1992). The purpose of this study was to examine prevalence and consequences of chronic toluene misuse among Roma youth in several communities located in eastern Slovakia where Roma exclusion and marginalization is extreme (UNDP, 2005).

METHODS

Study Setting

We conducted research in seven communities, which were selected based on two sources of information. Mušinka's (2007) report on drug use in Roma communities in the Prešov region provided information on 70 Roma communities and indicated that several of them had a problem with toluene misuse. Of these, we selected four communities with the highest reported rates of VSM. In addition, we contacted about 100 community centers listed in the *Atlas of Community Centers* (Hažírová et al., 2007) and institutions of local government to ask about VSM in Roma communities. As a result of this process, we included three additional sites from the neighboring Košice region where high levels of toluene use were reported.

Study Procedures

Fieldwork was conducted in July 2010. In each community, we administered semistructured, face-to-face interviews (using a 20-item questionnaire) with the key informants, who worked as field social workers (FSWs). Since FSWs are present in the settlements almost daily, they are valid sources of information about the levels of VSM in the community. In each of the seven communities, we interviewed two or three informants (a total of 20), mostly in a group setting where FSWs discussed and negotiated the estimates of chronic use. We asked questions about the number of chronic toluene misusers in the community, their age and gender, access to toluene, the various ways of toluene administration, the health impact of long-term use, crimes committed under the influence, and finally, treatment history and treatment effectiveness.

Data Analysis

Population estimates of the Roma communities we studied were obtained from the *Atlas of Roma Communities in Slovakia* (Office of the Government of Slovak Republic, 2009). On the basis of the key informant reports, users from each of the seven locations were enumerated by gender and age category. In order to protect the identity of the communities, we used alphabetical codes instead of their actual names to avoid the potentially stigmatizing effects of the reported results.

RESULTS

Levels of VSM

The estimates of the number of chronic users reported by the key informants are shown in Table 1. From the total Roma population of 17,050 people, 340 are estimated to be chronic toluene users (mean per community = 48.6, median = 43, range 2–100). The number of

users was divided into four age groups, with the highest number of users in the 10–18 years age bracket (44%, $n = 149$), followed by the 19–25 year olds (31%, $n = 104$). Children younger than 10 made up 15% ($n = 52$) of all users and 10% ($n = 35$) of users were older than 25. Ninety percent of users were males; a total of 35 female users were reported from only two of the communities. With the exception of FSWs from Community D, all of the key informants confirmed that VSM is a problem in their local community.

Access to Solvents

Since toluene is classified as a legal substance, there are currently no laws regulating its purchase in the Slovak Republic. A bottle can be bought for about an equivalent of US \$1.70 and can last up to a week depending on the means of administration and frequency of misuse. In some cases, store clerks hide toluene under the counter in order to prevent theft or to exercise personal discretion when juveniles or suspected misusers request to purchase the product. FSWs reported that adults sometimes buy the solvent and give it to children. However, unlawful distribution and dealing of toluene is illegal and local newspapers often report on cases leading to prosecution.

Consequences of Use

In addition to a distinct and intense odor emanating from the users, other signs of VSM are teary eyes, running nose, saliva dropping from the mouth, and burning throat. Long-term use may be associated with a number of serious health and neurological conditions, specifically, visible skin deterioration, tremors, and even epileptic seizures (see Cruz, this issue). Within the last eight years, five people from these communities were reported to have died as a result of toluene misuse (in one case, a user became unconscious due to intoxication and froze to death during the winter).

Although some users stop sniffing when they start a family still others continue, which means their children and relatives passively inhale the toxic vapors. The slums in which users and their families live are overcrowded, with, sometimes, more than 10 individuals occupying a one-room dwelling. Having toluene bottles accessible poses great risk because the chemical is highly flammable and toxic. One key informant described the case of an unsuspecting two-year old who mistakenly drank the chemical from the bottle.

A number of crimes related to VSM were reported by the FSWs, including thefts, aggravated assault, and murder (in one notorious case, a man was killed because his two intoxicated attackers wanted to steal and eat his dog).

Treatment of VSM

In the Slovak Republic, VSM is usually treated in psychiatric wards. Treatment primarily consists of behavioral therapy combined with medications (sedatives). However, on the basis of the obtained information, treatment rarely lasts more than three weeks, is mostly ineffective, and clients frequently relapse soon after they return home.

DISCUSSION

This pilot study is one of the first published reports to document that a number of Roma communities in eastern Slovakia are affected by toluene misuse and that many chronic users are very young. Moreover, toluene misuse is associated with serious adverse health outcomes including neurological impairment as well as behavioral problems (i.e., aggressivity).

These findings appear to share a number of similarities with the results from a recently published survey on the use of volatile substances by members of ethnic minorities in the neighboring Czech Republic (Vacek et al., 2010). As in the Slovak Republic, VSM is found predominately among the Roma minority, particularly among Roma children under 15 years of age. Significantly, more boys sniff toluene than girls. Moreover, VSM is restricted to certain locations or communities with lower socioeconomic status, and as in the Slovak Republic, it is also more prevalent in the eastern parts of the Czech Republic (specifically, in the Moravian capital city of Brno). Another report about school-aged children in Brno documented that toluene remains the most often misused substance among Roma students and that this choice of drug actually sets them apart and deepens their isolation from peers in the majority population who regard toluene sniffing with contempt (Šenký & Veselá, 2010). Thus, Roma communities are not only affected by poverty and discrimination, but VSM increases their stigmatization in the eyes of the majority population.

LIMITATIONS

A major limitation of the current study is the preliminary nature of the data that were collected in a small number of Roma communities and the fact that the data were obtained indirectly through the experiences of FSWs rather than from a population-based random sample. Therefore, our findings clearly underscore the need for a thorough epidemiological study on the prevalence of toluene misuse and examination of social determinants that lead to VSM among Roma in eastern Slovakia. Further research should also focus on interviews with individual users and their family members to examine the family dynamics, peer pressure, and parental attitude toward toluene sniffing. Underestimating the severity of VSM among Roma children and youth could lead to even more serious problems in the future.

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Biographies

Peter Važan, Ph.D., is a Senior Research Associate at the National Development and Research Institutes (NDRI) in New York where he collaborated on a number of NIH-funded research studies (e.g., drug abuse treatment effectiveness meta-analysis, study of a modified TC aftercare for triply diagnosed population, and analysis of staying-safe strategies of long-term injection drug users). He trained as a Psychologist and received his Doctoral Degree from the New School for Social Research in 2006. During his Postdoctoral Fellowship in the Public Health Solutions/NDRI Behavioral Sciences Training Program (2008–2010), funded by NIDA, he also developed international research collaborations to examine substance use and misuse among the Roma population, the largest minority of Europe. Recently, he joined the Institute for Special Populations Research at NDRI to participate in two, five-year longitudinal panel studies: veteran reintegration, mental health, and substance abuse in the inner city and the impact of transient domesticity coparenting in poor African American families.

Maria Khan, Ph.D., is an Assistant Professor of Epidemiology and Biostatistics at the School of Public Health, University of Maryland in College Park. She has over 10 years of experience researching social and behavioral determinants of sexually transmitted infection (STI) and human immunodeficiency virus (HIV) in vulnerable populations. She completed her Doctoral Degree in infectious disease epidemiology with a focus on STI/HIV at the University of North Carolina, Chapel Hill, and a Postdoctoral Fellowship in the NIDA-funded Behavioral Sciences Training Program at the National Development and Research Institutes (NDRI). She has also conducted numerous field studies to assess factors driving the STI/HIV epidemics in multiple settings, including in the United States, Burkina Faso, Jamaica, and Madagascar. Currently, she is conducting a five-year longitudinal cohort study designed to assess HIV risk within African American families affected by incarceration. Her project DISRUPT will examine the degree to which the maintenance of committed relationships during incarceration protects against psychopathology, drug abuse, risky sexual behaviors, and STI/HIV among African American male prison releasees during community reentry.

Ondřej Poduška, M.A., is an expert in various aspects of Roma ethnicity and culture. Since completing his studies of Ethnology at the Charles University in Prague, Czech Republic, he has been conducting social science research in Slovakia. In his work, he examined primarily the social exclusion of Roma communities. Recently, he has been collaborating on a large ethnographic study of social determinants of volatile substance misuse among Roma (funded by the Open Society Foundation, Slovakia), in which he coordinated interviewing study participants in 30 locations in eastern Slovakia.

Lenka Šťastná, M.A., is a Researcher in the Center for Addictology at the Psychiatric Clinic of the Charles University Medical School in Prague, Czech Republic. She holds a Degree in Psychology from Masaryk University in Brno. She served as an Executive Editor of the Addictology Journal in 2001–2002. She has been with the National Monitoring Center for Drugs and Drug Addictions from 2003 to 2005, where she was involved in evaluation of drug treatment services and helped develop a system for certification of drug treatment providers. She has published extensively on the use of volatile solvents in the Czech Republic and on VSM by children from ethnic minorities.

Michal Miovský, Ph.D., is Head of the Center for Addictology at the Psychiatric Clinic of the Charles University Medical School in Prague, Czech Republic, and a Research Fellow at the National Focal Point for Drugs and Drug Addictions (NFP). He specializes in qualitative research methods and was responsible for the development of evaluation tools and systems to ensure the quality and efficiency of prevention and treatment interventions. He received his Ph.D. degree in clinical psychology from Palacký University in Olomouc in 2002. In the

same year, he joined the Institute of Psychology of the Academy of Sciences of the Czech Republic as a Researcher. He coordinated Component 3 of the PHARE Twinning Project “Strengthening National Policy to Combat Illicit Drugs.” He also worked as a Psychologist and Psychotherapist (specializing in Gestalt Therapy, Katatym Imaginative Psychotherapy, and Integrative Psychotherapy) in various addiction treatment programs. In 2005, he was named Associate Professor in clinical psychology at Palacky University in Olomouc.

GLOSSARY

Roma (Gypsy)	The European Union (EU) for Fundamental Rights Agency (FRA) uses the term “Roma” as an umbrella term including groups of people who share more or less similar cultural characteristics (such as the Roma, Sinti, Travellers, Ashkali, and Kalé) and also share a history of persistent marginalization in European societies
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TABLE 1
Population size of seven Roma communities and estimated number of chronic toluene misusers within four age groups

Community ^a	Total Roma population ^b	Number of users within age groups ^c				Total estimated number of users
		<10	10–18	19–25	>25	
A	950	6	16	7	1	30
B	4,200	12	35	25	8	80
C	1,500	8	18	17	7	50
D	1,200		1	1		2
E	1,700	10	12	8	5	35
F	2,000	4	27	10	2	43
G	5,500	12	40	36	12	100
Total	17,050	52	149	104	35	340
%		15	44	31	10	100

^aTo protect confidentiality, we use alphabetical codes instead of the actual names of the study locations.
^bThe population estimates are from the *Atlas of Roma Communities in Slovakia* published annually by the Office of the Government of Slovak Republic.
^cEstimates are based on numbers reported by key informants from each of the study locations.