Suicides and Alcohol Consumption in Russia, 1959-2013

Mini Review

Volume 5 Issue 5 - 2017

Nemtsov AV[1]* and Shelygin KV[2]

[1]*Head of Informatics, Moscow Research Institute of Psychiatry, Ministry of Public Health of the Russian Federation, Russia*
[2]*Associate Professor, Department of Psychiatry, Northern State Medical University, Russia*

***Corresponding author:** Alexander V Nemtsov, Head of Informatics, Moscow Research Institute of Psychiatry, 107076 Poteshnaia str. 3, Russia, Email: nemtsov33@gmail.com

Received: October 26, 2017 | **Published:** November 16, 2017

Introduction

Alcohol has become in Russia a system-forming factor in the last 50years. Many processes in the country directly or indirectly are connected with alcohol consumption, including suicides (SC). This was demonstrated repeatedly in Russia by different methods [1-3]. However a suicide is a multi-factor phenomenon, so it's important not only to show the connection between two phenomena, but to estimate the input of alcohol consumption on SC.

Material and Method

The period analyzed was 1959-2013.Coefficients of mortality from SC in men and women were obtained from: http://demogr.nes.ru/index.php/ru/demogr_indicat/data (application date 07.03.2016). The calculations of alcohol consumption in liters per capita were based on based on the relationship of violent deaths with alcohol in the blood and sober to the real consumption of alcohol (whenever possible). When this became impossible, these data were correlated with deaths in alcohol poisoning [4]. The calculation of the share of mortality connected with alcohol consumption was made with ARIMA as well as Index methods [5].

Results

The mortality rates from SC in Russia, for both men and women, in the second half of the 20th Century to the beginning of 21th Century had growth in the first half of this period and a decline in the second half (Figure 1). The significant deviation (sharp decrease) from this dynamic happened at the beginning of anti-alcohol campaign (1985-1986), however the recurrent increase started in 1987 and reached the record level for Russia in 1994. In the last decade the speed of decrease for SC started to slow down, as well as for mortality from alcohol poisoning. There are periods of more (for example, 2004-2006) or less (for example, 1995-1998) similarity in the dynamic of the two phenomena. The socioeconomic indexes were also significantly different in these periods (Table 1), Rosstat data. The calculation of the share of SC, dependent on alcohol, has shown that 46.1% for men SC and 37.7% for women SC are connected with alcohol consumption (SC in men are by 5.3 times higher than SC in women).

Table 1: Socioeconomic indexes in two periods (Russia).

Indexes \ Periods	1994-1997	2004-2012
Real monetary (cash) incomes in comparison with the previous year (% in average)	-2.97	7.68
Population with incomes lower than living wage (% from total population)	22.53	15.05
Price for oil brand Brent (USD per barrel)	21.3	46.1

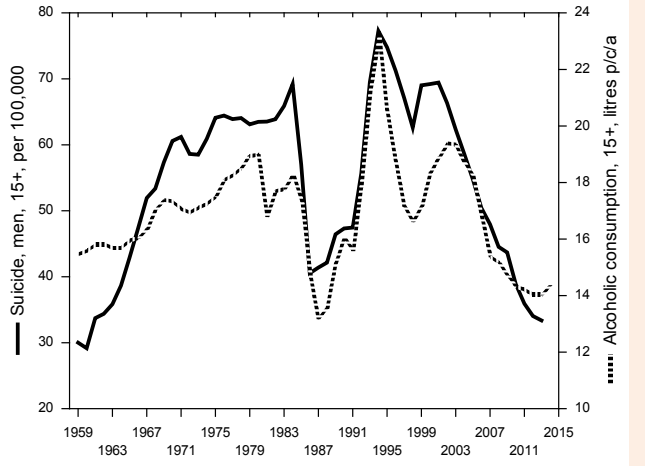

Figure 1: Suicide of men and total consumption of alcohol in Russia in 1959-2013.

Discussion

One of the main results of the research is that in the period of 1953-2013 44% of SC in Russia were connected with alcohol (46.1% for men and 37.7% for women). SC in men is 5.3 times higher than SC in women. In Russia realities of alcohol abuse is significant, but not the only factor SC. It also depends on socioeconomic factors (Table 1), which were changing during the observed period. The questions are: who were these 44% of SC in our research and who died from alcohol? Based on epidemiological data, we can only make an assumption, that those who died, were connected with alcohol not accidently, but were alcoholics and heavy drinkers. In several research studies, which were using forensic medicine data, the share of SC with alcohol

in blood varies up to 60% [1,6,7]. One can assume that alcohol in blood was by accident, a trigger factor, in approximately 20% of SC. This is only a hypothesis which requires verification.

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Citation: Nemtsov AV, Shelygin KV (2017) Suicides and Alcohol Consumption in Russia, 1959-2013. Forensic Res Criminol Int J 5(5): 00170. DOI: 10.15406/frcij.2017.05.00170