

Popularity and Reasons of Russian Teenagers' Self-Medication

L.G. Denisova¹, M.N. Denisova², S.V. Tyranovets¹, T.M. Litvinova², I.U. Glazkova², O.A. Smyslova²

¹Moscow State University of Medicine and Dentistry, Delegatskaya St., 20/1, Moscow, 127473, Russian Federation

²Sechenov First Moscow State Medical University, Trubetskaya St., 8/2, Moscow, 119991, Russian Federation

Abstract

According to the statistical analysis, when feeling unwell, 25% of the Russians prefer to get on well on their own. However, the problem related to the spread of teenagers' self-medication has not been studied. Surveying high school children of secondary schools (15-18 years old), the authors assessed the role and spread of self-medication among teenagers. As a result of the survey, it was defined that 54% of teenagers purchased drugs without the doctor's prescription. The main factor when selecting the drug was the parents' recommendations. In case of individual purchase the most popular drugs among teenagers were nonprescription drugs. The number of real patients of self-medication who bought drugs based on their own knowledge and experience was lower (27%).

Keywords: nonprescription drugs, pharmaceutical market, self-medication, self-medication of Russian teenagers.

INTRODUCTION

The study carried out by the All-Russian Public Opinion Research Center revealed that when feeling unwell, 25% of Russians preferred self-medication (<https://wciom.ru/index.php?id=236&uid=115370>). The main reasons for self-medication include dissatisfaction with the time one has to wait to attend a doctor, lack of time for visiting a doctor, mistrust to doctors and the health system, as a whole. In European countries, there is also an increase in the number of citizens who prefer to cope with ailments without the doctor's help. This increase is explained by a high rhythm of life, the impossibility to focus on the disease, as well as the psychological fear to fall behind the times while being medicated.

In Russia, over a long period of time, a negative attitude towards self-medication as a phenomenon that can worsen the patients' condition and untimely medical care had been propagandized. However, over the recent decades, subject to the involvement of pharmaceutical companies, their active direct and indirect advertising of their products in mass media, the Russian population's attitude to this problem has considerably changed. The most popular TV programs that are most widely broadcasted on any popular TV channel are devoted to health. On average, 20-40% and more of commercials are related to advertising drugs [2, 3]. For many citizens the trust to "TV doctors" and a visit to the pharmacy they know well substitute a visit to the doctor even when they have serious symptoms.

Foreign countries pay much attention to studying the problem of self-medication among teenagers. Numerous Western countries carry out national surveys on a regular basis (<http://svpressa.ru/health/article/136507/>) [4]. The results of the studies carried out in the U.S., Canada, Saudi Arabia and Europe that involved more than 3.5 million teenagers have shown the following.

The spread of self-medication considerably differs from country to country. The difference varies from 2% to 92% depending on the country. Most often nonprescription drugs, as well as prescription drugs, including analgesics and antibiotics, are taken without the doctor's prescription. Predisposition factors for the teenagers' self-medication include the following:

- Gender (higher among girls),
- Senior age,
- The mother's education level, and
- Family habits.

The main sources of information about drugs are the recommendations of pharmacists, parents and friends.

However, there are no studies on the above problems among teenagers in Russia. The unsubstantiated use of chemicals that include almost all drugs and the majority of dietary supplements can considerably harm unformed systems of children and teenagers. Children and teenagers attentively watch their

parents' behavior and often tend to follow their parents' and family members' habits, especially in terms of self-medication (<http://www.cfah.org/hbns/2014/teens-world-wide-self-medicate-with-over-the-counter-and-prescription-drugs>) [5].

The goal of the study is to assess the role and spread of such phenomenon as self-medication among teenagers. To achieve this goal, it is necessary to solve the following tasks:

1. To determine the spread of self-medication among teenagers,
2. To identify the relationship between gender, social and demographic indicators and the spread of self-medication, and
3. To define the factors that influence self-medication among teenagers.

MATERIALS AND METHODS

The studies were carried out by surveying high school children of secondary schools (15-18 years old). Such methods as theoretical analysis of the problem on self-medication, surveying, and statistical processing of the results were used.

RESULTS AND DISCUSSION

This study was assisted by the biometric studies laboratory of the Moscow State University of Medicine and Dentistry. A questionnaire had been developed, and high school children of Russian secondary schools were surveyed. The survey was carried out within the Russian forum of schoolchildren as an interactive part of the "Healthcare" section. The section members individually carried out the survey as a part of the sociological experiment. In this survey the term "self-medication" meant treatment without applying for help to a doctor, a nurse or relatives when a teenager went to the pharmacy and, at his or her own discretion, bought a drug based on his or her personal experience. A total of 620 respondents aged 14-17 years old took part in this study. The average age of the study participant was 15.7 years old (± 1.25).

Due to the peculiarities of the "Future Intellectual Leaders of Russia" forum participants, there was a shift. Male respondents prevailed – 66.9%, while according to the State Statistics Committee, there were 51.2% of boys in the age group of 15-19 years old.

The share of respondents that came from families of medical or pharmaceutical workers was 37% (Figure 1).

The health indicator was almost the same among boys and girls. 21% mentioned chronic diseases (according to respondents in the target group).

The respondents demonstrated rather high indicators of visiting doctors. Thus, the half of the survey participants indicated that they visited doctors 3 times a year and more often (Figure 2). 85% of the respondents noted that they tried to adhere to or fully comply with the doctors' recommendations.

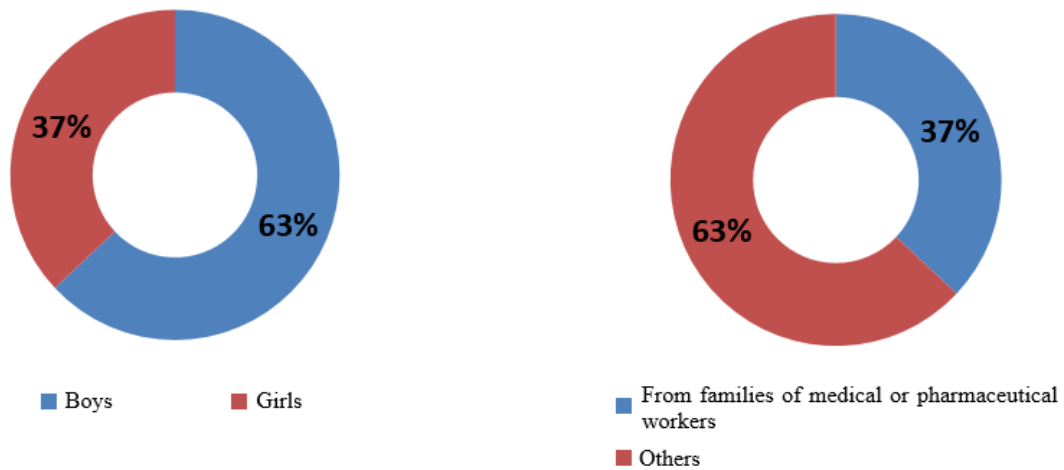


Figure 1. Socio-Demographic Profile of Respondents

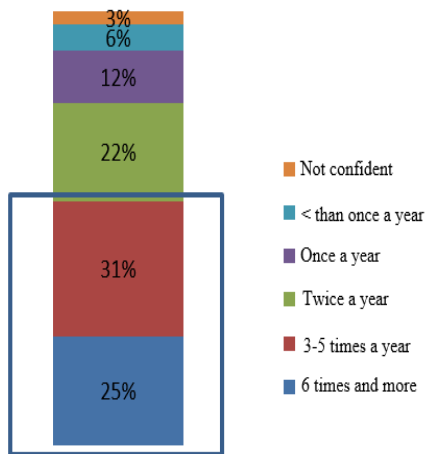


Figure 2. Frequency of Visiting Doctors

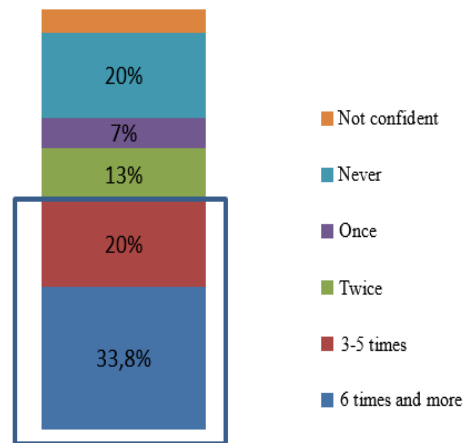


Figure 3. Purchases in Pharmacy without Adults

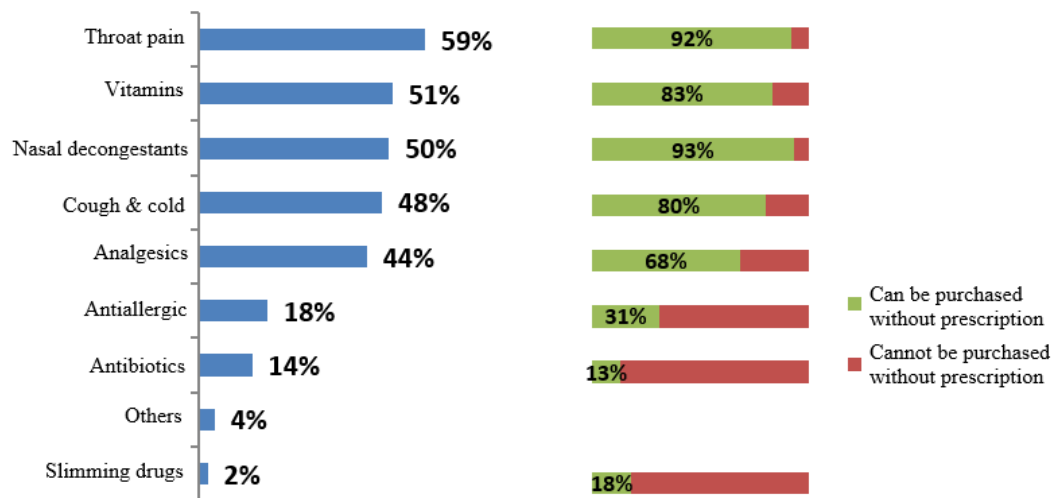


Figure 4. Rating of Drugs Purchased Individually and Opinion about the Need of Prescription (% – Share of Respondents who Purchased Drugs Without the Doctor's Prescription)

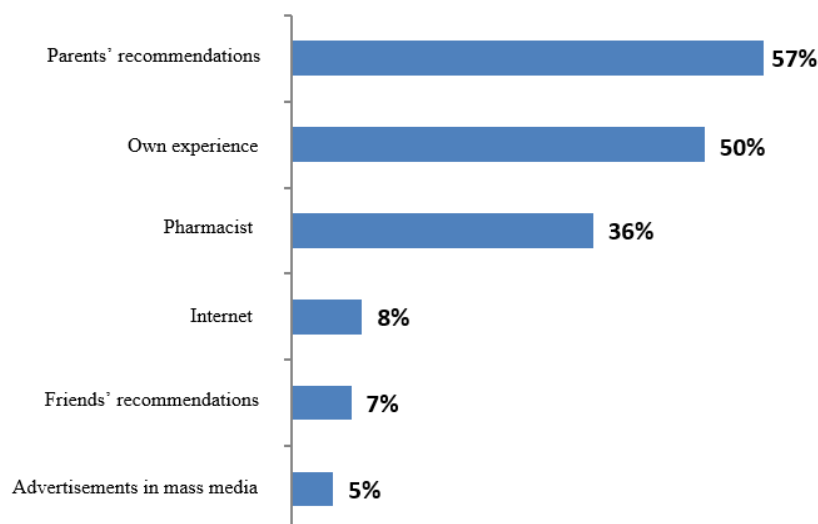


Figure 5. Factors that Have Impact on Selecting Drugs for Self-Medication (% – Share of Respondents who Purchased Drugs Without the Doctor's Prescription)

Individual purchases in pharmacies without the adults' participation were quite a common practice for the majority of teenagers. More than half noted that over the past year they had individually purchased drugs in pharmacies 3 or more times (Figure 3). However, it is necessary to note that a considerable number of the respondents – 20% – did not have such experience. The number of patients of self-medication among them was 54%.

Most often teenagers purchased drugs for sore throat and cold, and vitamins. The absolute majority was confident that taking these drugs did not require a doctor. 14% of teenagers who purchased drugs without the doctor's recommendations noted that they had bought antibiotics.

At the same time, teenagers showed a high level of awareness (education) of nonprescription drugs (rules for selling): more than 80% of the respondents answered that antibiotics and drugs for weight loss were not drugs for self-medication (Figure 4).

The results of the survey have shown that when choosing and buying drugs, the majority of respondents are based on their parents' recommendations, and to a lesser extent – on their own experience: the half of those who answered the question about the factors that had impact on selecting a drug said that they knew themselves what drug they needed (Figure 5).

When feeling unwell at school, the absolute majority of the respondents, both those who bought and did not buy drugs, would prefer to contact a medical worker. About a quarter of teenagers noted that in this case they would call their parents/relatives. Only 6% of the respondents indicated that they would go to the pharmacy to buy a drug individually.

Thus, as a result of the survey, it has been defined that a bit more than half of the respondents – 54% – had the experience of purchasing drugs without the doctor's prescription.

CONCLUSION

The following conclusions have been made during the study: self-medication is more wide-spread among the teenagers who have chronic diseases (according to teenagers). In the majority of cases the most popular drugs purchased individually are nonprescription drugs for sore throat and cold, and vitamins. However, 44% of patients of self-medication (24% of the total number of respondents) noted that they had purchased painkillers, which corresponded to this indicator in the USA – 22%. The other 6% indicated that they had purchased antibiotics without the doctor's prescription.

The main factor when selecting the drug is the parents' recommendations. The number of patients of self-medication who buy drugs based on their own knowledge and experience is lower (27%).

Although being widespread, the problem of self-medication in Russia has been studied very little. There are almost no works studying its specificity for such age group as teenagers. The chosen theme is actual and challenging for its further development.

REFERENCES

1. VCIOM Russia Public Opinion Research Center, *Accessibility and quality of Russian healthcare: Patients' evaluation*, 2015.
2. Belskih I.E., Kulagina S.V., *Reklama lekarstvennykh preparatov v farmatsevticheskom marketinge* [Advertising medicines in pharmaceutical marketing], *Marketing in Russia and Abroad* 2010, 4.
3. Shehnaz, S.I., Agarwal, A.K., Khan, N., A systematic review of self-medication practices among adolescents, *Journal of Adolescent Health* 2014, 55(4), 467-483.
4. Alekseeva, T., *Advantages and disadvantages of self-medication*, 2015.
5. Fauntleroy, G., *Teens World-Wide Self-Medicating With Over-the-Counter and Prescription Drugs*, 2014.