

First Toll Free Helpline for Smoking Cessation – Analysis of Results after One Year of Operation

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ABSTRACT

The aim of the study was to prove that there is a strong need among the smoking population for the antismoking telephone helpline, and to describe the structure and dynamics of calls to the Call-center. Basic data on socio-demographic characteristics, smoking habits, and reasons for calling the Center were collected during telephone conversations with smokers. The data were entered into previously prepared tables. Statistical analysis included 7,452 telephone calls; most calls were received from persons aged 26–45 years (34%), followed by 19–24 (24%) and 45–60 (19%) age groups. There was no statistically significant difference in the number of calls between men and women (54% vs. 46%, respectively). Most callers consumed on average 20 cigarettes per day. The most frequent reason for calling was to get on how to stop smoking, whereas seeking information on professional literature was the least frequent reason for calling among our respondents. Four-fifths of persons making a call to the Center started smoking when they were between 16 and 20 years of age. We can conclude that there was a need for this type of intervention due to its accessibility and potentially wide coverage of interested users

Key words: smoking cessation, helpline, antismoking campaign

Introduction

Smoking is a great public health problem in all countries in the world, especially in developing and transitional countries. The association between smoking and cardiovascular and respiratory

diseases has been long known. Treatment costs of diseases associated with smoking place a heavy financial burden on health services. However, despite constant warnings about ill-effects of smoking and de-

spite being aware of the fact, most smokers find it difficult to quit smoking.

In Croatia, cardiovascular diseases account for 50% of causes of all deaths. Most these diseases are connected with smoking¹. Smoking has been recognized in Croatia as a great public health problem as early as 1980s, which led to the foundation and activities of the first Zagreb School of Non-Smoking as a group model to help smokers quit under the professional supervision². In March 2002, »Andrija Štampar« School of Public Health together with the Ministry of Health of the Republic of Croatia and Australian Embassy has launched the action »Say yes to non-smoking«. The action encompassed intensive media campaign, including broadcasting shocking anti-smoking commercials and promotion of non-smoking through press, offering innumerable reasons to quit smoking. Within the campaign, a Call-center was opened as a service for a free-of-charge campaign's telephone line. A telephone helpline, as an aid in anti-smoking campaign, offers potentially wide possibilities of use due to its accessibility. Several studies showed that use of a telephone helpline for consultations and use of additional reading recommended by advisors working on telephone helpline increased the short-term as well as long-term rate of quitting smoking³⁻⁶. Ossip-Klein et al. assessed the impact of telephone helpline on quitting rate on the one hand, and that of additional reading, on the other. They observed that during one year of research 11.7% of smokers who used the telephone helpline stopped smoking for 48 hours or more, in comparison with 8.1% of those who, for the same purpose, used only additional reading⁵.

The telephone helpline has enabled citizens who want to quit smoking to talk to an educated advisor and to receive help and support in crisis or in making final decision to quit smoking. The media cam-

paigned directed citizens at the Call-center by announcing the Center's telephone number on all printed promotional material and in the media. At the beginning and periodically during the campaign, the public was informed each time when famous persons, non-smokers, ex-smokers, or those who stopped smoking due to the campaign, were invited to Call-center as guest counselors to talk with callers about their smoking habit.

In this study we describe our first experience with a telephone helpline as one of the aspects of the anti-smoking campaign and present our questionnaire survey results based on the data collected from the callers.

Methods

Call center

The Call-center was opened within the framework of »Say yes to non-smoking« project. Within the Call-center, a free-of-charge telephone line was introduced with primary purpose to offer professional help to persons who want to quit smoking. The Call-center is open between 8 a.m. and 8 p.m. every day, 365 days a year. There are four professional advisors who can be contacted simultaneously. Outside of working hours, callers were informed on the working hours of the Call-center and they also had the opportunity to leave a message. The line was accessible through mobile or fixed telephone network.

Most advisors at the Call-center were physicians, psychologists, social workers, and smaller numbers of them were students of medicine, psychology, and social work. They all underwent a professional training to gain basic skills and knowledge about detrimental effects of primary and secondary smoking, the techniques of how to break the habit, and basic communication skills. All these activities were

accompanied by appropriate professional reading material. Eminent experts led their training from the fields of pulmonology, neurology, psychiatry, gastroenterology, and dermatology. The advisors periodically organized meetings to exchange experience, evaluate the program, and introduce measures to advance their work.

Data collection and statistical analysis

Data were collected between March 2002 to March 2003 through telephone contacts by advisors at the Call center using questionnaires prepared for that purpose. Following questions were asked:

- Time of call;
- Age;
- Gender;
- For how many years does he/she smoke;
- How many cigarettes per day;
- How many times did he/she tried to quit smoking;
- Reason for calling (legend: how to quit?, need for support, Schools of non-smoking, health problems, help to other person, other reasons).

The callers were warranted absolute anonymity, which in turn guaranteed a high level of sincerity in answers. There were 7452 calls directed to the help line. Eighteen calls were excluded from the analysis (calls from abroad, insufficient number of recorded data, and so on) because they did not meet the inclusion criteria.

We analyzed 7,434 calls according to demographic characteristics of callers (age and sex), the time of call, the reason for calling. Descriptive statistics was used to present the results; basic statistical indices were obtained and graphically presented.

Respondents

There were 7,434 respondents included in the study, 4,014 men and 3,271 women (149 without response). The re-

spondents were divided according to their age into 5 groups: <16 years, 16–25, 26–45, 46–60, aged > 60 years.

Results

Calls were divided into three groups: the first group included calls made during morning hours (8–12 a.m.), the second included calls made during the day (12–4 p.m.), and the third group was comprised of calls made in the late afternoon and evening (4–8 p.m). The frequency of calls was uniformly distributed throughout the working hours of Call-center. Calls were slightly more frequent between noon and 4 p.m., but the difference was too small to be considered significant.

The analysis of the age structure showed a wide age span of our sample of respondents, with the youngest caller being 7 years old, and the oldest 91. The highest number of calls was received from the respondents in the 26–45 age group (34%), followed by the calls from younger age group of 16–25 years (24%) and older age group of 46–59 years (19%). Significant percentage of calls was made by persons younger than 15 (10%). Smallest number of calls, only 5%, was made by people of older age, 60 years or more (Figure 1).

With respect to the reason for calling, subjects were divided into several categories.

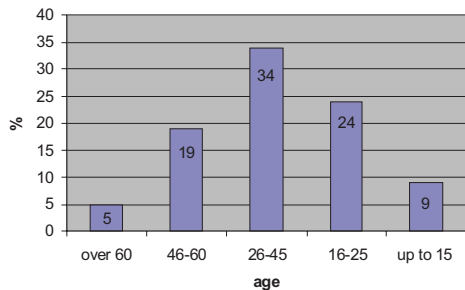


Fig. 1. Distribution of respondents with respect to age.

ries. As each person could have more than one reason to make a call to the Call-center, we anticipated this possibility and included it into data collection and analysis (for example, the person was asking for advice or help on how to quit smoking but they also consulted the available literature). The most frequent reason for calling was to receive professional help and advise on how to quit smoking (3,202 calls). This is in accordance with our expectations with respect to the purpose and aim of the Call-center, which is to offer professional help and advice to those who want to quit smoking. The second most frequent reason was unspecified, for example, to express support to the campaign, to obtain information on prize contest organized within the framework of various actions, to talk to famous persons, a reaction to video spots, and so on. The least frequent reason for calling was the interest in professional literature on smoking and on the process of quitting the habit (Figure 2).

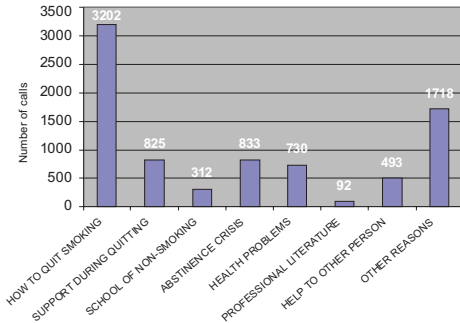


Fig. 2. Number of calls with respect to the reason for calling.

We wanted to see whether there was any correlation between the age of the caller and the reason for calling. Persons between 16 and 25 years of age called most frequently to receive advice and help to quit smoking. People between 26 and 45 years of age mostly sought support. In

comparison with other age groups, callers aged between 46 and 60 expressed the greatest interest in the School of Non-Smoking. Abstinence crisis as the reason for calling was stated by all callers aged between 26 and 60 equally. Health problems were the reason for calling among older persons, which is understandable and expected. This age group also showed the greatest interest in professional literature. An interesting finding was that the age groups most eager to help others to quit smoking were the youngest and the oldest. Due to other reasons, the youngest called most frequently.

One of the questions asked by consultants on the phone was age when the registered callers started smoking. One-third of the total number of registered callers started smoking when aged between 16 and 20 years. Almost 80% of people adopted smoking habit before turning 21 (Table 1). Also, around one-third of our respondents had started smoking before they were 15 years of age (32%). Out of the total number of registered callers, only 1% started smoking after the age of 40. The proportion of men who started smoking before 15 years of age was greater than the proportion of women. In the following age group (16–25 years), when smoking habit is most frequently adopted, this ratio was still in favor of men, but less pronounced, whereas the proportion of women who started smoking increased with age.

TABLE 1
DISTRIBUTION OF RESPONDENTS
ACCORDING TO THEIR AGE AT WHICH
THEY STARTED SMOKING

Age when they started smoking	M (%)	F (%)
<15 years old	39.21	22.88
16–20 years old	49.96	49.45
21–40 years old	13.18	26.07
41–60 years old	0.65	1.6

Daily amount of smoked cigarettes was expressed per pack of cigarettes, with one pack containing 20 cigarettes. The data on the amount of cigarettes smoked per day were available for only 56% of callers, because this information was not obtained from the rest of the callers. The greatest number of smokers, or ex-smokers who were abstaining from smoking (45%), smoked between 10 and 20 cigarettes per day on average.

With respect to sex, there was a difference in daily amount of smoked cigarettes (Figure 3). Men smoked more cigarettes per day than women did. Almost 70% of women and 57% of men did not smoke more than a pack of cigarettes per day on average, whereas 35% of men and approximately 28% of women smoked between one and two packs of cigarettes per day. Around 7% of men and 3% of women smoked over two packs of cigarettes daily

Motivation to stop smoking was measured on the 1–5 scale, where 5 denoted

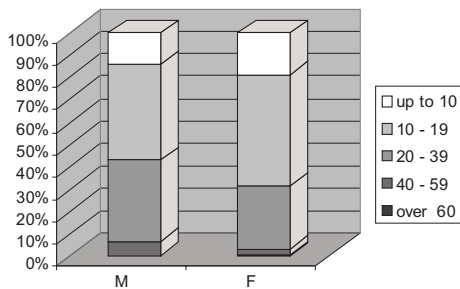


Fig. 3. Distribution of respondents with respect to average daily amount of smoked cigarettes.

TABLE 2
MOTIVATION TO STOP SMOKING MEASURED ON THE SCALE 1-5 (RELATION BETWEEN SEX)

Scale of motivation	M (%)	F (%)
5	32	43
4	25	25
3	24	19
2	13	9
1	6	4

extremely high motivation, and 1 extremely low motivation to quit smoking. Around 58% of men assessed their motivation to quit smoking as high, rating it at 4 or 5 on the scale. This percentage of women who assessed their motivation as high was a bit greater, amounting to 68% (Table 2).

Discussion

The anti-smoking methods in developed world have integrated legislative and public health measures. Of public health measures, most successful in defining the problem and raising the awareness as well as need to stop smoking were media campaigns supported by a range of other »services«, among which especially eminent place was taken by telephone line for help and advice to smokers⁷.

Helplines provide a type of service, which smokers, who had enough will to quit, used in large numbers and which offered them the support and advice they needed.

Telephone intervention can be an instrument and strategy for smoking cessation potentially producing lasting changes in smoking prevalence⁸.

The large number of calls received through first Croatian telephone helpline during the »Say yes to non-smoking« campaign implied that the campaign was a success. It also indicated that there was a need for such a service that would give support and professional advice to those interested in quitting smoking, and that the awareness of the detrimental effects of smoking was well developed. Analysis of the data collected during the calls confirmed that even in Croatia the greatest problem is the fact that smokers adopt the habit early in life. But it was also encouraging to find that the most numerous group seeking help were those aged 26–45 years, who wanted to have a healthier life in the years ahead. Significant per-

centage of calls was made by persons younger than 15 (10%), which is important because this age is especially sensitive with respect to starting smoking.

It is obvious from the data obtained that the most critical period to start smoking is between 16 and 20 years of age.

We wanted to see whether there was any correlation between the age of the caller and the reason for calling. Persons between 16 and 25 years of age called most frequently to receive advice and help to quit smoking. People between 26 and 45 years of age mostly sought support. In comparison with other age groups, callers aged between 46 and 60 expressed the greatest interest in the School of Non-Smoking. Abstinence crisis as the reason for calling was stated by all callers aged between 26 and 60 equally.

With respect to the time of call, the calls were slightly more frequent between noon and 4 p.m., but the difference was too small to be considered significant.

From data analyzed it can be concluded that declarative wish to stop smoking was more frequent among women than among men.

While the effect of the campaign, including helpline, can indirectly be assessed on the basis of the number of calls received, it is a bit more difficult to establish precisely the exact effect of giving advice over the telephone. There are several reasons for that. One of the key reasons is the impossibility to establish precisely and completely the number of people who permanently quit smoking after using helpline. The next reason is the sample size chosen to follow up the effects of help received over the helpline. A previous study used 10% of the sample size to study the effects of helpline on smoking habits of callers^{9,10}. The sample chosen is often non-representative, and a range of technical problems burdens the follow-up, which additionally decreases

the precision of such research. However, even such surveys, with all the above-mentioned limitations, have shown that the percentage of those who quit smoking on permanent basis (expressed as a percentage of callers who quit smoking during the follow-up) due to anti-smoking campaign is between 15% and 23%, and those who reduce the number of cigarettes smoked around 28%. Although the results of such surveys, as reported, are burdened with many limitations, they show almost twofold a better effect than that achieved without any intervention, around 7%, according to Baillieu¹¹.

Previous studies defined motivation, previous partly successful attempts to stop smoking, and the number of cigarettes smoked per day as factors to quit smoking successfully. An additional factor is a socio-economic status, as well¹².

If we take into account all the stated factors, it is clear that the study sample faithfully representing the whole population of helpline users is difficult to form. Furthermore, the results of most studies performed so far are based on the results obtained by questionnaire survey, and as such, potentially incorrect. However, other research has proven satisfying accuracy of such surveys and high percentage of answers corresponding to the actual state of smoking habits of callers¹³.

Conclusion

Further actions within the campaign should be directed at target groups within the population of smokers, and the questionnaire survey conducted through helpline would be of great help in these efforts.

Telephone helpline is a useful and efficacious aid to anti-smoking campaigns. Due to the accessibility of the helpline and potentially wide coverage of interested users, it is a simple way to offer help to those who want to quit smoking.

Evaluation of the helpline effects still presents a challenge. Careful assessment and selection of study sample is required,

and aims and expectations from that evaluation should be precisely defined.

REFERENCES

1. ANONYMOUS: Croatian Health Service Yearbook: 2002. (Croatian National Institute of Public Health, Zagreb, 2002). — 39. — 2. HUDOLIN, V., V. HRABAR-ZERJAVIĆ, Ž. KULČAR, L. KOVAČIĆ, M. STRNAD, Results of monitoring of Zagreb School of nonsmoking. (974. – XVI). — 3. ZHU, S. H., V. STRETCH, M. BALABANIS, B. ROSBROOK, G. SADLER, J. PIERCE, J. Consult. Clin. Psychol., 64 (1996) 202. — 4. BRITT, J., S. J. CURRY, C. MCBRIDE, L. GROTHAUS, D. LOUIE, Health Educ. Q., 21 (1994) 55. — 5. OSSIP-KLEIN, D. J., G. A. GIOVINO, N. MEGAHED, P. M. BLACK, S. L. EMONT, J. STIGGINS, J. Consult. Clin. Psychol., 59 (1991) 325. — 6. ORLEANS, C. T., V. J. SCHOENBACH, E. H. WAGNER, D. QUADE, M. A. SALMON, D. C. PEARSON, J. Consult. Clin. Psychol., 59 (1991) 439. — 7. BORLAND, R., D. HILL, Drug and Alcohol Review, 9 (1990) 211. — 8. LANDO, A. H., L. W. HELLERSTEDT, L. P. H. PIRIE, G. P. MCGOVERN, Am. J. Public Health, 82 (1992) 41. — 9. PLATT, S., A. TANNAHILL, J. WATSON, E. FRASER, BMJ, 314 (1997) 1371. — 10. OWEN, L., Tobacco Control, 9 (2000) 148. — 11. BAILLIE, A. J., R. P. MATTICK, W. HALL, Aust. J. Public Health, 19 (1995) 129. — 12. DONNAN, P. T., J. WATSON, S. PLATT, A. TANNAHILL, M. RAYMOND, Journal of Smoking Related Disorders, 5 Suppl. 1 (1994) 271. — 13. PETITTI, D. B., G. D. FRIEDMAN, W. KALIN, Am. J. Public Health, 71 (1981) 308.

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TELEFONSKA LINIJA POMOĆI ZA ODVIKAVANJE OD PUŠENJA – REZULTATI PRVE GODINE RADA

SAŽETAK

Cilj ove studije bio je dokazati da u pušačkoj populaciji postoji izrazita potreba za telefonskom linijom pomoći te opisati strukturu i dinamiku poziva. Tijekom telefonskih razgovora prikupljeni su temeljni podaci o nekim sociodemografskim obilježjima, pušačkim navikama i razlogu poziva. Ti su se podaci upisivali u za to pripremljene tablice. Statističkom analizom podataka obuhvaćeno je 7.452 evidentiranih telefonskih poziva. Što se tiče dobne strukture najviše poziva upućuju osobe u dobi između 26–45 godina (34%), slijede ih osobe 19–24 godine (24%), a zatim one 45–60 godina (19%). Gotovo da i nema razlike u pozivima u odnosu na spol, ipak nešto češće zovu muškarci (54%). Najveći broj ispitanika konzumira u prosjeku do 20 cigareta dnevno. Najčešći razlog poziva je traženje savjeta kako prestati pušiti, a najmanje je poziva kojima se traži informacija o stručnoj literaturi. 80% osoba koje su zvale Centar počele su pušiti u dobi od 16. do 20. godine života. Može se zaključiti da je radi dostupnosti i potencijalnog velikog obuhvata zainteresiranih korisnika ovakva vrsta intervencije potrebna u borbi protiv pušenja.