

# Research regarding the implications of the social marketing in the medical field

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**Abstract** In a society facing difficult problems caused by both deepening tensions between limited resources and human needs, growing relentlessly, and the development at a high rate of the nonprofit domain, the rational management of the social actions seems to be of a stringent necessity to which the social marketing is trying to find a solution. This research is intended to produce evidence of the importance of carrying out, in Romania, a social marketing campaign dedicated to the diminishing of the incidence, among the population, of the gastric infection with the *Helicobacter pylori* (Hp), and, in the same time, to design the conditions under which such a campaign should be done.

**Keywords** Social marketing, sanitary marketing, social campaigning and *Helicobacter Pylori* bacteria.

## I. INTRODUCTION

*„To set a free man is to teach him what thirst means and to unearth for him a way in the mud to a spring water.”*

Khalil Gibran

The social marketing, as a domain of marketing practice was defined by Ph. Kotler and G. Zaltman, in 1971, as: "projecting, implementation and control of the marketing programmes built in such conceptual framework so to influence the acceptance of some social ideas and to draw the attention to the planning of the product, pricing, communications, distribution and marketing research. In 2006 Kotler returned to the initial definition and added for a better understanding of this concept, the idea according to which: "the social marketing is performed by nonprofit organizations or nongovernmental organizations to promote a social cause". The social marketing is supposed to influence behaviours of some groups, an organization entirely but not individuals. This type of marketing could be rather a state of mind than an ensemble of techniques. This assertion is sustained by the fact that the aim of the social marketing namely the changing of some behaviours, should be voluntarily performed. The efforts of the social marketing to change attitudes, behaviours, fundamental ideas did not have, as an impact, outstanding successes. From this point of view one cannot assert that a substantial reduction happened, for instance, among the smokers or safety belt users. But one can give an appreciation to the social marketing use with great success when implementing the health international programmes, such as: the contraception, the organ donation, and the vaccination against the breast cancer.

The application of the social marketing in the medical field was determined by the health issues coming from the society. In this matter the existence of sanitary marketing can be mentioned back to the early '60 in the countries of Africa and Asia, having as goals to help in solving problems such as: vaccination, familial planning and nutritional problems. In the health field the marketing has in view to satisfy the needs and desires related to health, to promote and facilitate the change of individual and the policies at the society level. The necessity to have such a change in existence is meant to help the individual who cannot provide health by himself or to get it from other person, either violently or asking, only by giving up to something that is of some value for him.

The sanitary marketing has in view both a healthy person and an ill person, what supposes an anti-marketing strategy to practice: the alcohol and tobacco producers make advertisements in order to sell their products, while the society tries to fight against them.

The specific of the social marketing is the market existence but without its equivalent money. The efficiency of such a strategy can be noticed when counting the healthy people, the social insertion of ill-persons, professional reemployment of ill-persons with chronic diseases having recourse to the secondary prophylaxis.

A social campaign developed in the U.S.A. gave birth to a particular impact due to the outcomes presented at S.M.I. conference (Social Marketing Institute). In the due course there was presented the fact that in 1994, 99% cases of stomachal ulcers were caused by the *Helicobacter Pylori* which can be eradicated with antibiotics.

In 1996 the Center for Disease Control and Prevention (CDC) together with other governmental agencies and academic institutions launched a nationwide campaign of education in order to solve this problem of public health which affects 25 mil. of Americans and for their health care \$ 6 billions are spent annually.

*Helicobacter Pylori* (Hp) is a bacteria which due to the percentage of the affected population occupies the second place in the standing of the most worldwide spread infections, after the dental decay.

The doctors Robin Warren and Barry Marshall discovered this bacteria causing the ulcer as well as the detection method of tracing its existence in human body by using a noninvasive respiratory test: the patients have to swallow a small quantity of urea, marked with a carbon isotope. If the *Helicobacter*

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Pylori is present, the urea is decomposed and it sets free the carbon dioxide, which is eliminated by breathing. This discovery brought to both of them the Nobel Prize for Medicine in 2005.

Having an extraordinary resistance Helicobacter Pylori stays for a lifetime in the stomach, having the whole responsibility for the most stomachal diseases. This bacteria spreads interhumanly by breathing, kissing, using the same clothes, same bed covers, contaminated water, by disobeying some basic sanitary rules mainly hands washing.

The specialists think that Hp causes the chronic disease of the stomach called chronic gastritis, an affection whose evolution is slow, and persists the entire lifetime unless it is cured. This evolution can cause ulcer or even cancer for the years to come.

Some Romanian studies showed that at the stomach level Hp is responsible for 7 out of 10 cases of ulcer and 9 cases out of 10 at the duodenal level. Moreover, sometimes, the drugs administrated against the infection - such as the nesteroidien antiinflammatorys or aspirin - have as effect only to raise the ulcer risk or provoke blood bleeding.

Starting with 1994 the Cancer Research International Agency classified Hp as a cancer agent of the first rank.

In France, statistics prove that this bacteria kill yearly the same number of people, equal to the road accidents.

Yet, studies show that only 1 to 3% out of the total number of infected persons would develop cancer later, because to reach this stage needs many years, adding to it certain stressing factors as well, such as genetical predispositions, smoking, salt consuming in large amount.

Within a survey organized by „Eurogast Study Group” they found that the risk to develop a gastric neoplasm is six times higher when infected with this bacteria.

## II. THE RESEARCH

The research we are going to present here has started from the premises that abroad (in the U.S.A) social marketing campaigns with a similar goal had an outstanding impact. On the other hand the incidence in Romania of the Hp infection is very high and our knowledge is very poor.

Under this considerations we started the research from the hypothesis that by making interviews with a sample of patients to whom an infection with Hp had been established, by using a radioisotopical noninvasive procedure we would obtain not only data about Hp infection but also information about the population perception of the connection between the gastric ulcer and Hp.

The questionnaire was given to 74 subjects at the Laboratory of Nuclear Medicine of the Emergency Clinical Hospital ”Prof.dr. Octavian Fodor” in Cluj-Napoca.

The investigation was carried out free of charge within a project framework launched by the University of University of Cluj-Napoca. The laboratory received detection equipments and other materials free of charge as well, so that either the patients or the health public system did not pay for the investigation.

The study aimed at the following objectives:

- To evaluate the opportunity of a social marketing campaign using data about the Hp incidence and obtain knowledge about the connection between Hp and gastric ulcer.

- To evaluate the optimal way to carry out the marketing campaign by identifying that sort of media channels through which the subject should receive messages of the same kind, respectively, about the permeability of the subjects to the medical information.

- To establish the target groups the social marketing campaign should be address to.

- To establish a level within the cost for the detection of the Hp should be limited under the conditions witch the price of investigations should be paid by patients.

- To determine the level where the investigated persons are aware of the prevention importance of gastric ulcer by eradicating Hp bacteria in the stomach.

Some part of the research outcomes are presented below:

1. In your oppinion, the stomachal ulcer:
  - Needs always a surgical treatment 1%;
  - No answer 0%;
  - Cannot be prevented 1%;
  - Can be prevented when treated with medicines against a bacteria 83%;
  - Don't know 14%;
  - Other opinions 1%.

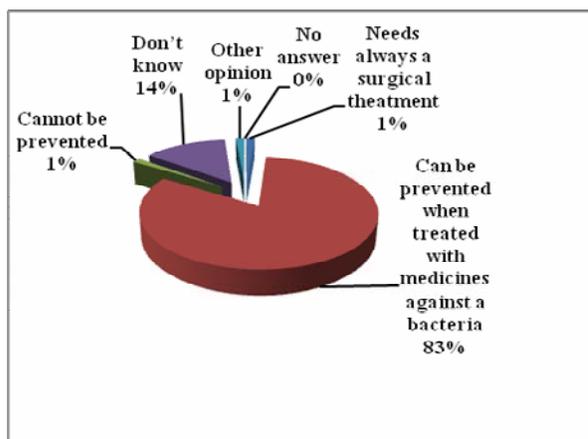


Fig. 1. The subject oppinions regarding the factor that makes appear the ulcer

Following the results obtained, we can assert that 83% of the investigated subjects were fully aware of the fact that Hp makes appear the ulcer and can be destroyed by means of the drug treatment. The percentage of 14% pertains to the persons who do not know what makes appear the ulcer disease.

2. What do you think, the stomachal ulcer is provoked by?
  - A certain bacteria in action;
  - A high acidity in the stomach;
  - Irritable means;
  - Alcohol;
  - Stress;
  - Tobbaco;
  - Don't know;
  - Others;
  - Without answer.

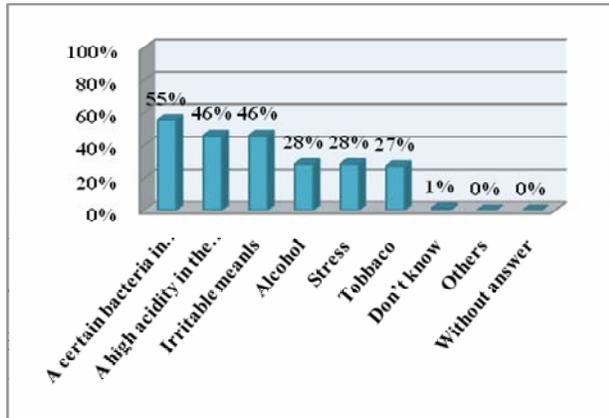


Fig. 2. The causes of the stomachal ulcer appearance

Most of the subjects think that the stomachal ulcer is provoked by Hp bacteria while 1% only do not know which is its cause. The tobacco, stress and alcohol, which are factors that can accelerate the ulcer debut, on the background of Hp bacteria presence in the stomach, represent 27-28% out of the total questioned persons.

3. From where did you find that in our laboratory we were checking the presence in the stomach of a bacteria that could damage your health?

- From a doctor of speciality who sent you for this investigation;
- From an acquaintance, who has already made this investigation;
- From my family doctor;
- From newspaper;
- From medical works of speciality;
- From radio or TV broadcasting;
- I wasn't told by the doctor why I had been send to make this investigation;
- Other circumstances;
- No answer.

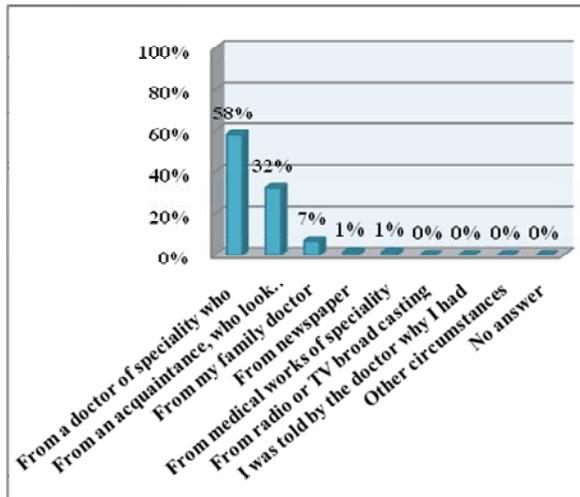


Fig. 3. Sources from which the patients were informed about the existence of this bacteria

More than half of the investigated persons found out about this bacteria from the specialist while, on the opposite side, with a percentage of 1% we find subjects who know about the existence of Hp bacteria from media channels (newspapers, radio, Tv).

4. According to your knowledge the detection of Hp in the stomach can be made:

- By a test wich doesn't need a gastroscopy test, usually performed in a laboratory of nuclear medicine (73%);
- By gastroscopy;
- By a blood test;
- Don't know;
- By analyzing feculant matters;
- By ecography;
- No answer;
- Not interested.

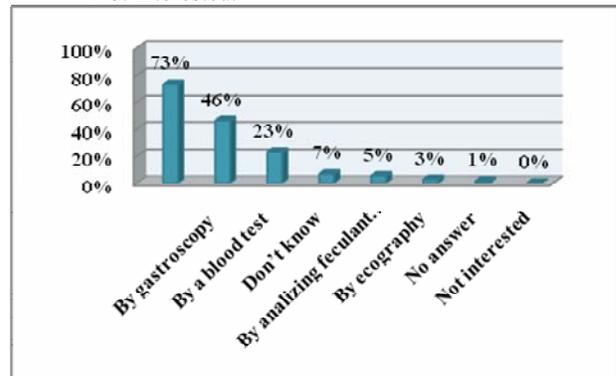


Fig. 4. Some practical ways through which the existence of Hp in the stomach can be detected

Most of the respondents (73%) know about the noninvasive test to detest this bacteria while 7% do not know the existence of a test by help of which the presence in the body of a Hp can be determine.

5. Have you met that warning according to which we have to avoid „the abuse of salt, sugar and fat“ ?

- From the TV;
- From the radio;
- From the newspapers;
- No;
- Other circumstances;
- No answer.

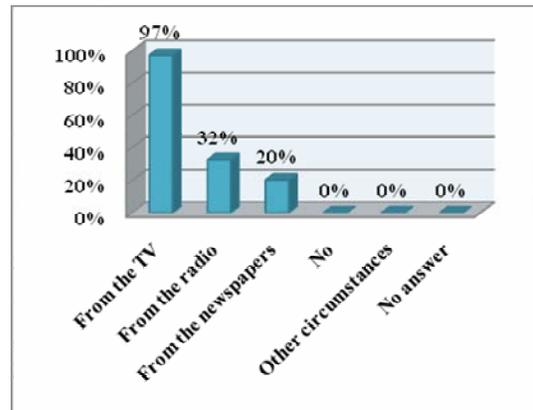


Fig. 5. The incidence of the media channels on the subjects.

6. Do you think that the advertismant against smoking seems to be more efficient?

- On TV;
- On radio;
- In newspapers and magazines;
- This shouldn't be done anymore
- Other variants;
- No answer.

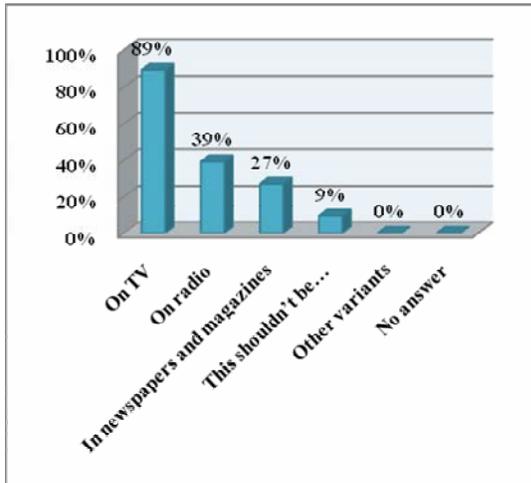


Fig. 6. The incidence of media on the subjects.

Nearly all the investigated subjects found out that the warning „avoid the abuse of salt, sugar and fat” at the TV, which shows the special impact the TV has on people, generally speaking, and that we can reach the conclusion that a warning referring to the existence of this bacteria, as well, with effect on human body, would have a special impact if an advertising spot would be broadcasted to be watched on TV.

7. If you do find that an investigation could be made to protect you in the future against a serious disease, for instance the gastric ulcer:

- Other variants;
- You wouldn't go to be investigated if you hadn't any symptom
- You would go if only it was for free
- You would go if you had met a person who made the investigation
- No answer.

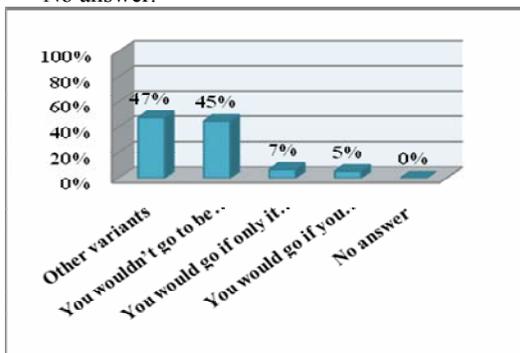


Fig. 7. Establishing the grade under which the investigated subjects are aware of the importance of preventing the gastric ulcer appearance by means of eradication of Hp bacteria in the stomach.

Among the questioned subjects 47% think that carrying out an investigation to defend themselves in the future time is important and they are ready to pay for it. Small percentages (5% or 7%) represent the subjects who would go for a medical investigation only if he/her knew someone who suffered of this disease or if the investigation would be free of charge.

8. If the said investigation would be carried out only if paying for it, would you do it ?

- Maximum 200 lei;
- Maximum 300 lei;
- Maximum 500 lei;

- No answer;
- Maximum 50 lei;
- Maximum 100 lei.

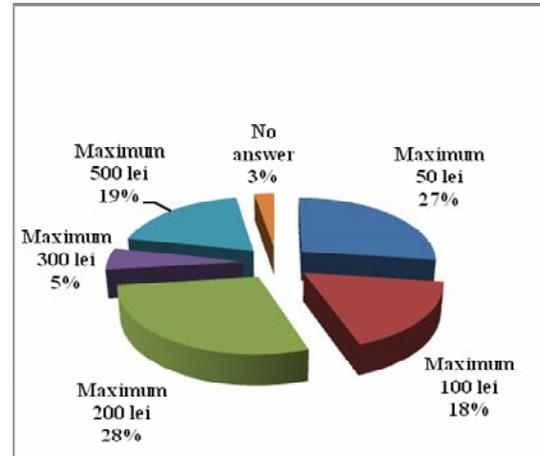


Fig. 8. Establishing the maximum price level one cannot exceed over as regards the investigation costs when it wouldn't be carried out in free of charge terms

28% out of the investigated persons think that a maximum sum of 200 lei are ready to pay for this investigation. 50 lei as a maximum represents a price for an investigation which 27% of the investigated subject would accept. 19% is the percentage of those ready to pay 500 lei.

9. The medical outcomes of the test carried out on the respective persons, were:

- 35% negativ;
- 3% no answer;
- 9% low positive (uncertain);
- 53% high positive.

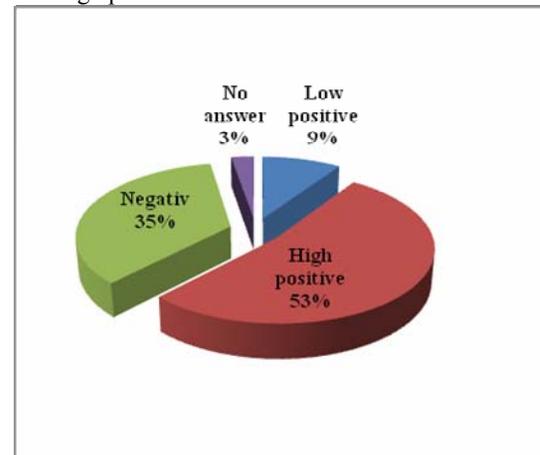


Fig. 9. Establishing the percentage of the infected persons with Hp.

Most of the investigated persons, 53% respectively were found infected with Hp.

10. What is the total estimated net income shared among every family member, monthly, in your family, in the last month ?

- Between 750-1000 lei 19%;
- Over 1000 lei 23%;
- Other variants 4%;
- No answer 0%;
- Under 250 lei 3%;
- Between 250-500 lei 16%;
- Between 500-750 lei 35%.

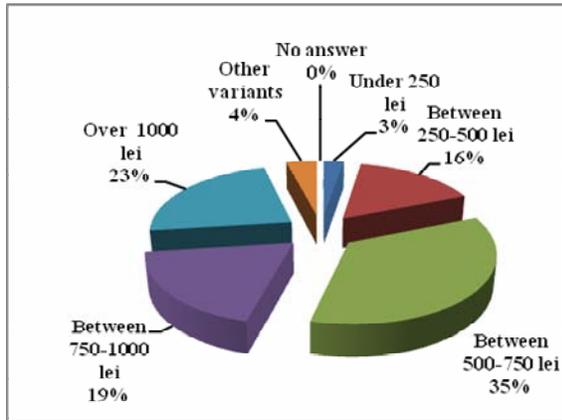


Fig. 10. Establishing the monthly net income for every family member

Following the answers given by the respondents we can notice that most of them have wages between 500-750 lei, 35% respectively, while 3% have a monthly net income for each family member under 250 lei.

### III. CONCLUSIONS

1. Among the population it is prevalent the number of those infected with Hp bacteria is at a very high rate, confirming that this infection represents a real problem for the public health.

2. The knowledge at the population level on the Hp infection and the relation of causality between this bacteria and the ulterior progress of the gastric ulcer are at a very low rate.

3. The population would go for a Hp diagnostic test in an important percentage if only presented symptoms suggesting the existence of disease. Taking into account the insidious character of the progress of the gastric disease due to the Hp infection, the necessity to inform the population and to change social behaviours is obvious.

4. A noninvasive test, such as radioactive marked urea test and a reasonable price of the investigation, accessible to the population would raise the public compliance for the diagnosis of the Hp infection.

5. A social marketing campaign in order to make the population sensitive about the problem of infection with Hp would have a maximum impact using TV channels. Taking into account the high costs, from a practical point of view, a TV campaign could be made by help of a public and private partnership together with the TV owners having the desire to be involved in such a campaign.

6. The maximum limit which cannot be exceeded by the cost of the investigation is of 200 lei. Once the limit exceeded, the number of the investigated persons would be very small.

7. Within the study, the patients percentage getting information on the investigation from mass-media was of about 2,5%. This proves the lack of media channels and strengthens the necessity of a social marketing campaign in the field.

8. The prevalence of the infection among the population is higher at younger people, that is, it is not necessary to get older for the disease to appear which underlines the gravity of the situation and its character of a serious problem for the public health.

9. The infection prevalence is high for some segments of population (women, young people, town inhabitants) supposedly coming for a diagnostic test once they are informed about such possibilities.

Directions for future research:

The present work aspired to be a preliminary stage, a starting point for a deeper research and for a social marketing campaign dedicated to the problems related to Hp infection and to the diagnostic and treatment possibilities.

The main directions of research and actions in the future are based on a social marketing campaign including activities:

- To keep the population informed, using mass-media, about all the issues related to the Hp infection and mainly about the causality relation between the stomachal disease and this bacteria.
- To establish a public and private partnerships with mass-media companies interested to host promoting messages and broadcast them to the population.
- To elaborate informative documents with an optimal impact on the target groups.
- To inform the associations of family doctors about the new noninvasive possibilities of diagnosis of Hp infection aimed at an appropriate guidance of the patients.
- Due to the fact that the legislation in force gives permission to radioisotopic diagnosis of the Hp infection only in the sectors of nuclear medicine, all the hospitals having such sectors should be informed about the possibilities of acquisition of detection equipment and necessary kits, respectively.
- To establish a public and private partnership with companies importing detection equipment and kits in order to obtain their participation at the campaign guided to the population and family doctors and to determine a minimum cost of the investigation to allow a greater percentage of patients to come.
- To inform the local authorities, where hospitals with departments of Nuclear Medicine are under their subordination about the diagnostic possibilities of Hp infections and its importance having in view to allot necessary resources to the hospitals and to keep the population informed.

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