

**UNIVERSITY OF WEST HUNGARY
FACULTY OF ECONOMICS
THEORY AND PRACTICE OF ECONOMIC PROCESSES
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***DTC (DIRECT-TO-CONSUMER) COMMUNICATION
IN THE ETHICAL DRUG MARKET***

***COMMUNICATION MODEL OF TARGETING
DEPRESSED PATIENTS DIRECTLY***

Thesis of Doctoral (PhD) Dissertation

**Written by:
Andrea Csépe**

**Supervisor:
Dr. habil László Józsa CSc.**

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1. BACKGROUND TO THE RESEARCH

54% of the pharmaceutical industry worth 374 billion USD comes from North America (MAT'July 2006) (IMS 2006b), the trends of which infiltrate Europe and Hungary. We may be witnessing a transformation of the competitive environment in major global markets. The number of registered drugs has multiplied while preparations with similar efficacy compete in the main therapeutic groups. Original drugs are exposed to generic attacks forcing down the prices and jeopardising the profitability of original products; meanwhile, costs are increasing in the areas of research and development, marketing and sales. The rapid advancement of biotechnology presents another challenge to the pharmaceuticals industry. Governments attempt to control drug supply and demand through restrictive measures while companies within the industry aim to ensure their profitability through mergers, acquisitions and outsourcing.

In parallel with the above, changes in the consumer behaviour of patients may also be observed. The information boom, the proliferation of the Internet and the media provide patients with substantial amounts of information. Health awareness has improved and patient rights organisations have evolved in the area of health preservation and prevention. As the age group of the baby boom is getting older, a new consumer sphere is born, who are health aware, defiant, eager to receive information and take an active part in decisions related to their care.

Such economic and social trends inspire decision makers in the pharmaceutical industry to create new business models, which change in paradigm has led to the notion of Direct-To-Consumer (DTC) communication. In addition to physician promotion, pharmaceutical companies have put the end user, the patient in the centre of their activities. The industry has realised the need to understand the problems, motivation and behaviour, to explore the needs, to satisfy the increasing thirst for information and the illness awareness of the patient, to provide and communicate personal gains in a comprehensible manner.

Nonetheless, in WHO and the World Bank report (Kopp 2001), the European Commission has stressed the importance of combating depression and the resolution of the stigmatisation of and discrimination against those suffering from mental disorders in its new Health Care Programme. Since depression is a subject occupying civilised societies,

thus Hungary as well, the currency of which lies in its social and medical significance equally:

- a./ 121 million people struggle with depression worldwide according to the World Health Organisation (WHO 2001a). 15.1% of Hungary's population suffers from this illness during their lives (Szádócky 2000).
- b./ The illness is heavily stigmatised (WHO 2001b), which originates from society's lack of information and low psychological culture.
- c./ Having high economic burden of disease, unipolar major depression ranked fourth in 1999, and projections for 2020 suggest its runner-up 2nd position behind ischemic heart disease (Szádóczy 2000, Murray and Lopez 1996).
- d./ In the specialist protocol of Psychiatry Specialist College (2005), depression is an under-diagnosed and under-treated illness throughout the world. According to population surveys conducted in countries with advanced health care provision, approx. one third of patients suffering from major depression receive treatment (Rihmer and Angst 2004). 15% of the population of developed countries is made up by the generation over 60-65 years (Pető 2004), but this is forecasted to reach 25% by 2020 in developed countries. Such ageing under-diagnosed and under-treated society presents a severe public health issue and economic burden (Mulchahey et al. 1999, Pető 2004).
- e./ The combined appearance (comorbidity) of depression with anxiety pathographies (Kessler et al. 1996), neurological diseases (Varga 2000), physical illnesses is rather frequent, which patient groups make up for large numbers even on their own (Montano 1994, Goodnick and Hernandez 2000).
- f./ There is a close relation between psychiatric illness and suicidal behaviour (Kasper et al. 1996, Müller et al. 1999). 65 to 75% of those committing suicide are mostly suffering from untreated major depression at the time of their death (Psychiatric Specialist College 2005). Suicide rates are ten times higher among depressed than the average population (Katona 2000). Hungary is a country affected particularly as shown by its second place among European countries in 2005 in the suicide statistics (EAAD 2006).

2. RESEARCH OBJECTIVE

The dissertation discusses and links two priority areas of economy and medicine: it analysis the outcome of a change in paradigm experienced in market of prescription drugs, the so-called Direct-To-Consumer (hereinafter DTC) communication in connection with depression. The research investigates the dilemma and depth of providing patients with information from the perspectives of patients suffering from depression, GPs and specialists in connection with depression. During the primary research, the author has conducted a survey on satisfaction and needs assessment among patients, while surveyed the attitudes of specialist physicians and the GPs. The research aims to assess the attitudes of GPs, specialists (psychiatrists, neurologists) and patients suffering in mild and moderate depression towards DTC communication in connection with disease awareness campaigns and advertising antidepressants for depression treatment. Closely related to this, it is to reveal the types of information patients have on depression itself and their information needs, the depth of exchange of information between the physician and the patient, and the time it takes for patients to receive adequate therapy.

3. THE THEORETICAL LITERATURE BACKGROUND

The theoretical part of the dissertation comprises two subjects: “Presentation of DTC” and “Presentation of depression”. The common aspects of the two subjects become fully fledged in the primary research.

In the first part of the dissertation, “Presentation of DTC”, the Author has almost solely relied on foreign specialist literature, primarily on the publications of English and Northern-American experts because this field has not yet been investigated in Hungary. As the background to the subject, the behaviour features and factors of the pharmaceutical industry were analysed, that have led to a change in paradigm within the industry, centred on the patient and created DTC communication (Luban-Plozza and Dickhaut 1986, PhRMA 1995, Crooks and Boehringer 1998, Coile and Trusko 1999, Forgács 2000, Woods 2001, Borvendég 2005, IGYE 2006a, 2006b). The discussion of these factors is briefly in the chapter “Background to the research”.

Author has identified the notion of DTC and placed it within the system of health marketing and marketing communication (Szántó 2004, Sándor 1997). She also have determined the notions of DTC types,

DTCA (direct-to-consumer advertising), DTP (direct-to-patient), quasi DTC and the nine platforms of DTC communication from health-related public information service to branded product/disease advertisement (Sándor 1997, Pryce-Jones 2000, Blackett and Robins 2001, PhRMA 2002, Szántó 2004, MÚOSZ 2005).

She has presented the response hierarchy models (Kotler 2002), Prochaska's transtheoretic model (Neuman 2004), the models of Datamonitor (1998) and Optas (s.a.), where the desired outcome of communication is action, purchase, and in case of pharmaceuticals, patient compliance and therapy loyalty.

The effectiveness of advertising prescription drugs has also been examined from the perspectives of patients and physicians. In this regard, data from 11 surveys showed that advertising inspired 30% of patients on average to talk to their physicians, 21% requested the prescription of a specific drug from their physicians, while their physicians prescribed the requested drug to 5% on average (GAO 2002). The opinions of prescribers diverge with regard to advertising, it has a positive impact on the practices of 40% while has a somewhat negative impact on 42% (Barclay 2003, FDA 2003).

The expenses spent on DTC has been analysed, which although have grown exponentially since 1996 and reached 2.5 billion USD in 2000, yet failed to attain the cost levels of conventional promotions to physicians and drug sampling (NIHCM 2001, Reuters 2001, HAI-Europe 2001).

The social and business roles of DTC communication with illustrated examples have been explained. The Author has established that ideally, social and business goals coincide, patients and the company gain mutual benefits (Blackett and Robins 2001). She suggested the markets in which returns on DTC are the most likely (Kemper and Mettler 2002), which are the current or prospective markets with large numbers of patients in simple terms.

She has briefly outlined the means of DTC marketing, with a particular view to disease awareness campaigns (Buta 2006, Eyeforpharma 2003).

She has examined the legal regulation of DTC in Hungary and in the United States. Although the FDA regulates the various DTC types in detail overseas (GAO 2002), the exact regulation of Internet communication is yet to come.

She has compared the main arguments of the supporters and opposers of DTC communication. Supporters and the FDA itself argues

that it raises illness awareness, aids the recognition of symptoms, satisfies patients' information needs in a controlled manner, facilitates the destigmatisation of the illness, improves physician-patient relations and patient cooperation, activates patients to contact their physicians (RMI 2000, Express Scripts 2001, Prevention Magazine 2002, FDA 2003, Mintel 2005). Opponents, consumer groups, Senator Frist believe that it puts pressure on the physician's choice of pharmaceuticals, promotes unreasonably high use of certain drugs, increases pharmaceutical prices, excites health care expenditure, and creates non-existent needs (NIHM 2001, GAO 2002, Scrip Reports 2002, Mintzes 2003, Scrip 2004). Finally, I have concluded that instead of the highlighting of certain data, complex cost-effectiveness studies are needed to establish whether the long-term benefits from disease campaign centring on patient interests, exceed short-term expenses.

In the second section of the theoretical part, "Presentation of depression", the Author has reviewed depression and the areas related closely thereto, which are indispensable for interpreting the findings of the dissertation. She has studied extensive clinical surveys, studies and specialist articles of the domestic and foreign authorities of psychiatry.

She has presented the notion of the disease as identified by several noted authors (Riemann 1998, Szádóczy 1998, Faludi 2003, Abonyi et al. 2004, Psychiatric Specialist College 2005, Rihmer 2005a, Santos et al. 2006), and its symptoms in the two diagnostic regimes applied in Hungary and in the US (A DSM-IV. Diagnosztikai kritériumai 1997, BNO-10 Zsebkönyv 2004 [Diagnostic Criteria of DSM-IV]).

She has compared US, European and Hungarian depression epidemiological data, whereby the illness affects a substantial part of the examined population during their lives, 12.8% to 17.1% (Schöne and Ludwig 1993, Kessler et al. 1994, Szádóczy 2000, 2004, Spar and Rue 2003). She has discussed the factors of depression development according to the WHO (2001b) and the Hungarian Almanac of Psychiatry (Szádóczy 1998), and its risk factors (Weissman and Klerman 1985, Reiger et al. 1993, Montgomery and Boer 2001, Alonso et al. 2004a, 2004b).

She has summarised its comorbidity with neurological and physical illnesses (Katona 1990, Tollefson et al. 1993, Gorman 1996/1997, Kessler et al. 1996, Wittchen 1999, Varga 2000, Goodnick and Hernandez 2000) since depression often (2 to 87%) appear as second disease with illnesses representing substantial patient groups.

The Author studied treatment of the disease, patient path and problem of lack of treatment. Such as why patients do not see a specialist, do not receive adequate treatment, face social stigmatisation, why their awareness of the illness and the physician-patient communication are not satisfactory (Priest et al. 1996, Arató 1996, Krecz 1996, Lépine et al. 1997, Ballenger et al. 1999, Motika 2000, Young et al. 2001, Szádóczy 2004, Rihmer and Angst 2004, Spar and Rue 2003, Szendi 2004, Túry 2005).

In order to stress the importance of the subject matter, she has explained its social and economic significance and burdens: 1./ high suicide rate, where depression occurs in 35 to 79% of the instances (Rihmer 1996, Szádóczy et al. 2000, Kumar et al. 2001, EAAD 2006) 2./ incapacity to work and disability, reduction in sustained activity, where depression is the leading diseases among the top 12 diseases (Kessler et al. 1994, Murray and Lopez 1996, Stein 2003, Andlin-Sobockia and Wittchen 2005) 3./ deterioration of the quality of life, which is worse in case of depression than in other chronic illnesses (Weihs et al. 2000, Szádóczy et al. 2001, Alonso et al. 2004c) 4./ economic burden of disease, depression has the highest cost (Andlin-Sobocki et. al 2005) and outweigh by far certain chronic illnesses (Berto et al. 2000 and Druss et al. 2000).

As the conclusion of the dissertation, the Author has suggested a communications model to reach patients and their surroundings, which combines multilevel community-based intervention with integrated disease awareness campaigns. She firmly believes that through such wide-ranging and combined efforts, depression may be prevented from becoming the second disease threatening society and patients the most by 2020 worldwide.

4. HYPOTHESES OF THE RESEARCH

When setting up the hypotheses, the Author has essentially relied on two sources: on one hand, the processing of specialist literature on theory and, on the other hand, on similar research conducted in other countries.

H 1. Specialists and General Practitioners both experience that patients' information need has grown recently.

We have accepted this hypothesis.

H 2. All stakeholder groups support depression disease awareness campaign in ratios exceeding 40%.

We have accepted this hypothesis.

H 3. Patients suffering from depression access physicians sooner if they have any information on the illness.

We have accepted this hypothesis.

H 4. Physician-patient communication is facilitated by patients having information on depression.

We have not accepted this hypothesis.

H 5. Physicians are aware of patients accessing information on depression primarily through electronic and printed media.

We have accepted this hypothesis.

H 6. The majority of specialists agree that DTC disease campaigns on depression should primarily be financed by the Ministry of Health Care.

We have accepted this hypothesis.

H 7. The majority of specialists see the impact of disease campaigns in the increasing patient numbers, which render their day-to-day work more difficult.

We have not accepted this hypothesis.

H 8. For the time being, only a limited circle of physicians are ready to accept the advertising of prescription pharmaceutical brands to patients, they essentially agree with the current regulation.

We have not accepted this hypothesis.

H 9. The minority of patients suffering from depression demand the advertising of prescription pharmaceutical brands. They accept the current situation where physicians tend to decide the choice of pharmaceutical on their own.

We have not accepted this hypothesis.

5. RESEARCH METHODOLOGY

5.1 The qualitative research

A qualitative research was intended to be an exploratory research, which is proper for mapping the issues of the theme. The author wished to learn how familiar the patients and physicians are with DTC and DTCA, whether they deal with these issues and have any deeper opinion about it.

The research has been made by in-depth technique. Sample has been taken from two groups: the patients suffering from depression and the specialists. The streamline of the depth interview was designed the way that the replies of the different groups can be compared, though some questions were specific to each group. Each interview took app. 1.20 hour of 7 patient suffering from depression and 6 specialists.

The questions were mainly open questions with the objective of learning the respondent's attitude, knowledge, opinion, feelings about the searched area. In some questions Likert-scale was used.

5.2. The quantitative research

In the quantitative research the author took a sample from GPs beside the specialist and the patient groups. The real sample size was the following:

- a./ 224 mild and moderately depressed patients under antidepressant treatment
- b./ 61 specialists (psychiatrists and neurologists), who could prescribe antidepressants till 16th January 2007 with 90% reimbursement (OEP 2007a),
- c./ 100 General Practitioners (GPs).

The specialists completed the questionnaire at the Neuropsychopharmacology Conference in Tihany, and the GPs filled them in with help. Outpatients with mild and moderate depression were targeted in 3 busy psychiatric care clinics in Budapest, in St. Rokus Hospital, in St. Imre Hospital, and in Jozsefvaros Health Care Service.

The questions were asked mainly in close questions though the open questions gave the respondents the opportunity to form their opinions. In some questions Likert-scale was used.

The questionnaire was coded and the data were put in a uniform database. The data analysis was made by SPSS 9.0 programme.

5% (0.05) significance level was chosen for the analysis. Univariate and bivariate regression analysis was made to reveal the distribution and the structure of the variables as follows: cluster analysis, analysis of variance (ANOVA), post hoc test, Sheffe's test, Pearson Chi-square test.

The survey can not be considered to be a representative research due to the method of selection.

6. SUMMARY OF THE MAIN OUTCOMES

Based on research, it may be claimed that both patients suffering from depression and the group of physicians are receptive to DTC communication. A high degree of receptiveness characterises the field of disease communication primarily. In each sub-sample, the ratio of those applauding depression awareness campaigns and believing that the attention of society, patients and environments thereof may be drawn to this illness through informing approximates 90%.

The picture on consumer advertisements of prescription drugs is somewhat more varied. Approximately half the patients relate positively towards the DTCA advertising of the prescription drug, while the other half reject it. The benefit thereof can mainly be seen in access to more information and in facilitating the physician-patient relation. GPs have a harlequin attitude to this question, specialist physicians have proven to be more receptive to DTCA advertising, 82% of them believed that it would facilitate the physician-patient relation and would allow patients to access more information. In the background of rejection of this communication is that they believe that it is the physician's responsibility to select the pharmaceutical and within the group, they are afraid of the physicians' right of selection of pharmaceutical being impaired. This group does not see the positive impacts of advertising in terms of patient education because patients would not access important information in this manner. In the groups of accepters and of rejecters, the ratio of those believing that the advertising of prescribed drugs would never be authorised in Hungary are nearly the same (40% vs. 36%).

The survey has revealed that the estimates of various sub-samples agree on that the ratio of untreated patients approximates 50%. The reason for lack of treatment is that the patient and their surroundings fail

to recognise the illness. The following findings have evidenced this piece of data: patients admit that, on average, two years elapse between the appearance of symptoms and the assistance from a physician. The perception of GPs and specialists is a lot more optimistic (6 months vs. 9 months). According to patients' perception, upon their first visit, 59% of them knew few or nothing about depression; physicians' perception is higher than that, 68% for GPs and 75% for specialists as the most pessimistic. The survey has evidenced that the time to reach a physician is longer among those knowing nothing about the illness; 3 years and 1 month elapse before they receive care. Research has proven that patients informed about the illness somewhat have contacted a physician sooner, which is a clear indication that disease campaigns on depression facilitate the access of untreated patients to assistance from physicians and entail straightforward and positive results to society as a whole.

It has however also surfaced that 46% of patients first share their problem with their family members. They tend to utter their depression symptoms to their beloved ones emphasises the importance of addressing their family members and surroundings in addition to patients in campaign. Their informing and encouragement could accelerate patient's access to physicians and the engagement of physicians in treatment before the symptoms proliferate and become unbearable. 56% of specialists blame the gaps in the knowledge of GPs in the field of depression illness in that patients do not receive adequate treatment. This situation could be remedied by an intensive extension training of GPs and by close cooperation - so-called consultation-relation psychiatry – with the specialists. The recognition of depression at GPs level is also a priority, because GPs believe that 83% of patients turn directly to them for help. The practice of other countries could be adopted whereby patients suffering from depression receive treatment primarily from the GPs, and only complicated, therapy-resistant or self-threatening patients are directed to specialists (Faludi 2003), which would release substantial capacities to receive new patients.

Research has demonstrated the international trend that the patient demand for information on the illness has grown in Hungary as well, according to physicians' perception (84% vs. 73%). The Author has also studied the nature of the physician-patient relation in terms of communication. The perception of patients and physicians diverge significantly in the issue of what type of information physicians provide patients with upon their first visit. In general, a much lesser part of patients recalled receiving the information examined. It is possible that

the physician had although informed the patient, yet not in a manner comprehensible by the patient, which raises the information gap in between the languages used by patient and physician. This fact justifies the need to improve physician-patient communication from two aspects; on one hand, the extension training of physicians in communications and, on the other hand, comprehensive education of patients through engagement of the field and the media.

The research deals with the actual and the ideal time devoted by a physician to informing. Estimates by patients of the duration of first visits are lower than those of specialist physicians when it mainly comes to the illness and the therapy. All three groups have found the time spent on informing too few. Albeit physicians admitted that patients demand better informing, yet they do not have the opportunity in their day-to-day work. In health care practice, the limited time of physician-patient encounters could be used more in depth if the layman would attend the visit better informed and prepared.

This study also analyses attitudes towards antidepressants. The most important expectation in each sub-sample is the effectiveness of the pharmaceutical, then the few side effects. Physicians have generally assumed higher expectations from patients in terms of the drugs, however, underestimated their receptiveness to detailed information on pharmaceutical. Patients read the patient brief placed in the box of the preparation with interest, however, physicians do not have the time to give satisfactory explanations to their questions, which demand could be satisfied by an effective depression campaign.

When studying attitudes towards disease campaigns, the majority of patients (93%) have encountered information, programmes or articles related to depression in mass media. On the other hand, physicians underestimate the role of the media; their majority assumes that patients receive information on depression from their surroundings. The majority of patients (74%) find media communications to be reliable, as opposed to physicians (42%-49%). The target group may be reached through mass media the most, however, the possibility of specialist control should be provided for the physicians' profession in order to allow patients to access professionally controlled real information.

The research has also provided useful information for the planning of a future illness campaign, which must address the patient's surrounding in addition to the patient. They are primarily the specialist physicians who could communicate information on depression to people in an authentic manner. Their engagement in the campaign carries

particular importance because they are the ones accepting information communicated by the media the least, which is an indication of their willingness to fulfil a supervisory role. Patients demand the utterance of a person suffering from depression in the campaign and celebrities sharing their problems with the laymen would mean the destigmatisation of the illness to them.

An illness campaign should primarily provide essential information on depression, such as a description of the symptoms and the cause of illness and possibly a presentation of treatment methods and alternative cures. A clear demand for a toll-free telephone number has also surfaced.

It is a general belief among those inquired that an illness campaign should be financed and implemented primarily by the state. Nearly 80% of respondents believe that the Ministry of Health Care should provide the funding. Nevertheless, physicians are not reluctant to accept the engagement of pharmaceuticals companies in financing. 68% of patients, and a significantly higher ratio, 87% of physicians are lenient on the issue.

In summary, it may be claimed that the research has attained its aims. It has been demonstrated that DTC communication, mainly an illness information campaign improves depression awareness, supports patients in recognising its symptoms, informs on possible cures, overcomes communications difficulties in physician-patient relations, promotes the combating of stigmas and shame, and thus yields positive gains for society as a whole.

7. NEW SCIENTIFIC OUTCOMES

The dissertation has novelty in selecting the theme as:

1. linking the sections of marketing communication within economics and depression, psychiatry within medicine.
2. analyzing a research area audited less by marketers. It is studying a method of pharmaceutical marketing not widespread in Europe and Hungary, and a special field, DTC has not been analyzed by Hungarian specialists so far.
3. assaying the aspects of depression disease, which has the highest social and economic burden of disease in the world, and in Hungary as well.
4. on one hand the efficient reach of the patient became an important

strategic issue in the pharmaceutical industry. On the other hand the antidepressant market is an important part of the CNS (Central Nervous system), which is the 2nd biggest segment in the pharma market (IMS 2006b).

The research served us with novel results:

1. A research revealed that the groups of patients suffering from depression, the specialists and the GPs are open to DTC depression awareness communication whilst it calls the attention of the society, the patients and their surrounding to the illness. The respondents agree upon the campaign should be financed by the competent Ministry.
2. The survey presented the respondents' perception to the advertisement of prescription drugs. Supporters of it see the benefit of DTCA in delivering more information to the patients and improving the physician-patient relation. The opposers judge advertising unnecessary since the physicians' task is to decide on the appropriate pharmaceutical.
3. It has been proved that patients' need for getting more information about disease increased in Hungary following the international trend.
4. The research pointed out the main reasons for untreated of the depressed patients. Mainly the patients and the surrounding can not recognize the illness, the patients understates the symptoms in lack of knowledge. By 56% of the specialists the main reason for patients not getting adequate treatment is the deficient knowledge of GPs in depression treatment. It has especial importance as by the confess of GPs, they meet 83% of the patients first.
5. The dissertation appointed that the period of visiting the specialists is longer for those who know nothing about the disease than those who have at least some information (3 year 1 month vs. 1 year 10 months). It makes it obvious that DTC disease campaigns support untreated patients in getting to physician earlier.
6. It turned out that 46% of patients talk with their family member first about their symptoms. This fact strengthens the importance of targeting family members beside patients in the campaign since it helps patients get to the specialists earlier.
7. The research pointed out the problem of physician-patient communication at first visit time. In general, some patients

- remembered to get useful information less than physicians recalled. It can be cured by patients education and the training of physicians.
8. The survey stated that each group found the time spent on informing patients is few during visit. Though the physicians see that patients need more information, there is often no time for it in the daily routine. It may help spend the limited physician-patient visit more useful if the laymen were more informed and prepared for the visit.
 9. It also cleared up that 93% of the patients met information, programmes, articles on depression in mass media. But doctors underestimate the role of media and overestimate the magnitude of the surroundings. It is now evidence that patients may be reached the most efficient through media while the control of the profession should be assured in order patient to get valid information.
 10. The research provided useful information for a specific disease awareness campaign. Mainly specialists are considered to be an authentic moderator of transmitting disease information to the patients. Patients want to see a depressed person and a famous person in the campaign helping destigmatize depression and need information about symptoms, the treatment methods, alternative treatment and toll free number.
 11. The dissertation provides a model for how to execute a nationwide multilevel intervention program along with integrated depression awareness campaign financed and supported professional by the government in order patients to get adequate treatment as early as possible.

8. FURTHER FIELDS OF RESEARCH

The survey provides numerous opportunities for further research:

1. The research may be extended as a nationwide representative research.
 - 1.1. It would be exciting to see whether the answers of different age groups give various answers.
 - 1.2. As a nationwide research it would be important to see whether the outcomes from different region have any variance similar to the epidemiology of the depression, as more negative data can be found in the Easter-Hungarian region (Kopp and Skrabski 2006).

2. The research can be deepened by the followings:
 - 2.1. Confront the opinions of inpatients and outpatients.
 - 2.2. Compare the replies of patients suffering in different type of depression like mild, moderate, severe depression.
 - 2.3. Contrast the opinion of patients suffering in different type of depression by DSM IV. diagnostic system, like depression with anxiety, dystymia, major depression and bipolar depression.
 - 2.4. See any difference or similarity in the patients' need of depressed patients and sufferers in other chronic diseases like asthma, rheumatoid arthritis, cardiologic disease etc.
 - 2.5. Find out the level of information need of the depressed patients and the healthy population.
 - 2.6. Analyse the information need of the depressed people and their surroundings who suffer the most due to their beloved illness.
 - 2.7. Execute a pre-test and a post-test of a specific depression awareness campaign among target groups.

The proposals above would facilitate communication more efficient in addressing the target groups.

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