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The severe lack of information and the modification of the control perception regarding Sexually Transmitted Disease

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Abstract

Sexually transmitted diseases (STDs) are one of the most important public health problems globally. Health education and antivenereal education of the population is poor, although it is one of the most effective methods of preventing and combating these diseases. This study present the results of changing the perception of control of STDs in a sample of 100 students by providing specialized information and call negative emotions and thus demonstrate the necessity of introducing Sexology courses in educational institutions. Another purpose of this study was to evaluating the efficiency of negatively charged strong message from a sample of young subjects.

Keywords: Sexually transmitted diseases, control perception, anxiety, prevention program

1. Introduction

Sexually transmitted diseases (STDs) are one of the most important public health problems globally. Worldwide about 499 million adults are infected annually by STDs. Centers for Disease Control and Prevention (CDC) estimates that in the U.S. at least 20 million new cases of sexually transmitted infections are diagnosed each year,

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treatment costs amounting to approx. 16 billion U.S. dollars. The main STDs are: human immunodeficiency virus, human papillomavirus, syphilis, hepatitis B virus, herpes simplex virus type 2, chlamydia and gonorrhea. (Owusu-Edusei 2013; Satterwhite 2013; World Health Organisation 2013; Cates 1999). In recent years the frequency of STDs has increased alarmingly. Casual sexual contacts, especially with strangers, get in the way of the proper epidemiological investigation, which means that in most cases the source of infection is not found, essential in stopping the phenomenon of rapid expansion of these diseases. Health education and antivenereal education of the population is poor, although it is one of the most effective methods of preventing and combating these diseases. Due to the lack of education, the vast majority of people think they do not have any control in contacting such diseases and blame it solely on fate (Owusu-Edusei 2013; Satterwhite 2013; Da Ros & Caio da Silva 2008; Cates 1999). Psychology of control is the study of actions and methods by which a person or group of people can be controlled by another person or group of persons. It is believed that if we lack a sense of control in some field, it can be achieved using one or more of the following strategies: increasing or decreasing the desire to control, the acquisition of new skills or changing environmental modification or self modification, changing assessment (interpretation), in order to gain a new perception of the situation or changing emotions. According to Shapiro, the concept of control is multidimensional, it includes four key elements: perception of control, control modes, source control and the desire to control (Shapiro et. al 1996; Taylor & Brown 1988). Research has shown that there are positive results in cases where individuals have (or think they have) control over the environment and/or on themselves. Individuals may benefit from a positive perception of control even where someone else is in control through knowledge and competence available, or a higher power (Appelbaum & Shapiro 2013). The concept of locus of control has been developed by Rotter in 1966. Locus of control has been described as a dimension with two opposing differentiates. People with internal locus of control believe that what is happening is the result of what they do themselves, and their efforts are the result of their skills (Littunen & Storhammar, 2000). People with an external locus of control believe that what happens to them depend on factors that can not be controlled by themselves, by external factors over which they can have no influence (Landy & Conte 2004; April et. al., 2012). Rotter had suggested four types of beliefs in externals, which include: powerful others, luck or chance, fate, and a belief that the world is too complex to be predicted (April et al., 2012).

2. The present research

The present research was based on our observation of a lack of outreach on STDs, and lack of awareness of personal risk of infection. Consecutive this study aimed to what degree can be changed in the perception of control in these conditions by appealing to negative emotions. In this research were used several questionnaires and experimental plan was based on pretest – intervention – posttest.

The motivation of the research The motivation for this study was determined by highlighting profound lack of information for young people about STDs, and the realization that by offering a structured informational material that appeals to negative emotions can be very helpful in terms of awareness on ways to prevent STDs. We thought that making additional prevention program in this way is much less expensive than treating these disorders.

The research purpose The research purpose of this study was changing the perception of control of STDs in a sample of 100 students by providing specialized information and call negative emotions and thus demonstrate the necessity of introducing Sexology courses in educational institutions and university. A second purpose of this study was evaluating the efficiency of negatively charged strong message from a sample of young subjects.

Research objectives The objectives of this research were:

- highlighting the level of knowledge of the students about STDs
- increasing the level of knowledge about STDs by participating in a well structured course of sexology
- changing of the control perception in STDs by providing informational material that appeals to negative emotions
- highlighting how a highly charged emotional message influences subjects with varying degrees of anxiety

Research hypotheses:

- control perception in STDs can be changed by providing informational material that appeals to negative emotions. In other words, subjects who were initially doing external attributes (bad luck/misfortune) regarding a

possible STD contacting, following the intervention changed their views and became more internal, regarding the allocation of possible infection
- the level of knowledge about STDs will change (increases) by participating in a well structured course
- the efficiency of a highly charged emotional message, operationalized by modifying the perception of control and the level of knowledge about STDs, will be reduced for anxious subjects compared with the less anxious.

The target group: features of the population investigated Study group was chosen at random, unrepresentative, consisting of a total of 100 students of the University "Transilvania" of Brasov. The inclusion of subjects in the study was based on their voluntary consent. The distribution of research subjects depending on age was: 18-20 years - 53%, 20-22 years - 27%, 22 to 24 years - 16%, over 24 years - 4%. 64% of the subjects were female and 36% male, most of them, coming from the urban areas (72%).

The experimental plan We used an experimental plan based on: pretest - intervention - posttest.

1. In the pretest phase: Multidimensional Health Locus of Control Scale (MHLC) questionnaire and a Knowledge and Attitudes Questionnaire (QKA) were applied to all subjects.
- MHLC: The first version of the test MHLC was developed by K. Wallston, B. Wallston, Kaplan & Maid in 1976. People with a higher score than the average were considered as being predominantly external, believed that their health depends on factors that can not be controlled (luck, fate, chance, other people etc). On the other side stood those who score below average, their belief is that they can maintain or lose health due to their behaviors. The questionnaire has gone through many changes, reaching final form today, with 18 items (Wallston, 2004).
- QKA used in our study included was developed in order to assess the following: level of knowledge (refers to general information someone has about STDs), subjects on the risk attitude of being infected and declared motivation to adopt preventive behaviors.

2. Phase of Intervention: After 2-week the intervention phase followed. Before the actual implementation of the intervention subjects were divided randomly into experimental group and control group. The intervention consisted of presenting a well structured information material about STDs during two packets course (3 hours). In this research, we started from the idea that the perception of control can be modified by socio-cultural intervention. Most of the messages used in the prevention of STDs that appeals to negative emotions, including the threat of sterility, impotence, ectopic pregnancy and even death.

3. Posttest phase: In this phase, MHLC questionnaire was applied to each subject in the experimental group, survey of knowledge and attitudes and state-trait Anxiety Inventory (STAI). Also, subjects in the experimental group were divided into extreme groups: the low anxiety and high anxiety. In this phase, subjects in the control group only completed the MHLC and QKA. STAI consists of two scales measuring self two distinct anxiety concepts: state anxiety and trait anxiety. STAI has been shown to be useful in measuring anxiety in normal adults to students and patients in neuropsychiatry. STAI-X2 Scale (which measures trait anxiety) consists of 20 descriptions on which people express how they feel in general. STAI-X1 Scale (which assesses state anxiety) also consists of 20 descriptions, but the instructions ask subjects to indicate how they feel at any given time (American Psychological Association 2013; Spielberger, 2012).

Findings After implementation of all procedures, data were analyzed statistically. For knowledge and attitudes questionnaire $p=0.02$, demonstrating that our intervention was statistically significant on knowledge acquired subjects. This means that the differences between pretest and posttest is not due to chance, but is actually the result of our intervention (through information material) on the subject. We can thus say that after reading the material, the level of knowledge about STDs increased significantly and subjects are more willing to(theoretical) adopt preventive behaviors that may need to use disposable syringes and needles or condoms. In this context, it should be noted that there are studies showing that providing information on the benefits of condom use did not correlate with the motivation to use it. However, only knowledge about STDs are insufficient to change the sexual behavior of young people.

Control perception assessed by MHLC has changed significantly, as follows:
- In terms of internality $p=0.05$
- In terms of externalities arising from influential persons $p=0.01$, subjects who were initially made external attributes becoming more internal

- Externalities arising by chance was modified statistically insignificant (p=0.33)

Table 1. Summary of the results

TEST	RESULTS
Knowledge and Attitudes Questionnaire (QKA)	p=0.02
Multidimensional Health Locus of Control (MHLC)	
Internality	p = 0.05
Chance	p = 0.33
Doctors and other powerful persons	p = 0.01
State –Trait Anxiety Inventory (STAI)	ns

The data analysis revealed that perceptions of control have changed due to our intervention. In other words, subjects who were initially doing external attributes (eg. misfortune, fate) on possible contacting an STDs became more internal. This means that differences are not due to chance, but a systematic variation factor, respectively informative material and the intervention of a specialist.

A third hypothesis of the experiment is that a strong emotionally charged message will be less efficient for anxious subjects (with high scores on STAI) than the less anxious (low scores on STAI). We divided the subjects in the experimental group in the extreme groups, lower anxiety (STAI-X1<35 and STAI-X2<41) and high anxiety (STAI-X1>45 and STAI-X2>46). The idea that we went was that if efficiency messages appeal to negative emotions is higher in less anxious people and less efficient in anxious persons, then this difference should occur in this case as well. Calculating the difference between the averages showed that sub-groups of anxious and nonanxious, there is no statistically significant difference. In other words high or low anxiety does not hinder nor facilitate, in our study, a change in control or the level of knowledge about STDs.

3. Conclusions

The main theme of this paper is perception (position) of control in health and disease. We addressed this issue because it has been shown that having control is a critical variable for mental health and well-being (Bandura, 1997). The disease leads more often to the loss of feeling of control. In this context, numerous studies have shown that providing information about the disease (as a way of increasing control) have positive effects on issues like reducing the number of days of hospitalization, reduced morbidity and amount of analgesia used and so on. This study that we performed confirm a severe lack of information about STDs and personal risk of infection, and that the level of knowledge of the subject can be increased significantly by providing well structured informational materials, the results in our study are significant in terms of statistics. Without exaggeration, if after only 3 hours of presentation effectively structured guidance material we managed significant change in the perception of control subjects, it is clear that participation in a course of Sexology, held during a semester, will bring a clear benefit in terms the knowledge, understanding and adoption of preventive behaviors. Therefore, once again we draw attention to the urgency of introducing Sexology courses in education and university (regardless of profile education institution), supported by a specialist in the field. Although there are many projects on this topic, which have as their object the prevention initiation in STDs, achieving the institutionalized framework, with uncontrolled results, the actual information cannot be measured. Also, the perception of control of STDs can be modified by providing informational material that appeals to negative emotions, the results being statistically significant in our study. The subjects were initially having external attributions (bad luck/misfortune) regarding a possible STD contacting, following our intervention have changed theirs views and became more internal regarding a possible infection. Due to informative material exposed to the subjects by a specialist, they realized that, contacting an illness (especially an STDs) largely depends on them, not only by external factors such as bad luck. Also, the analysis results we concluded that, at least for the present study, high or low anxiety subjects have not hindered nor facilitated change in control or the level of knowledge about a particular disease or class of diseases. The study was based on a sample composed of young people (96% are under 24 years old) because STDs are more common in this age group. We can say that it is possible that expanding research to another age group to provide other results, especially given the different life experiences.

Without claiming to have developed a true "Prevention Program" of STDs, we believe that this study provides a contribution to the need to promote sex education programs in young people and university institutions. Within these institutions (regardless of field) subject areas should include mandatory programs in this direction. Prevention costs made in this form should be significantly lower compared to the costs of treatment of various STDs, not necessarily curative treatment (HIV). Also, for maximum efficiency programs, it is necessary to develop and implement them by multidisciplinary teams. It seems that Tony Robbins concluded the best aspects stated in this study: "The secret of success is learning how to use pain and pleasure instead of having pain and pleasure use you. If you do that, you're in control of your life. If you don't, life controls you."

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