HEALTH EDUCATION: A SOCIAL PSYCHOLOGICAL PERSPECTIVE

Marietta Karamyan
PhD (Psychology), Docent
Department of Psychology, National University of Uzbekistan
UZBEKISTAN
E-mail: mariettak@yandex.ru

ABSTRACT

This paper analyses social psychological aspects of health education in terms of health promotion strategies. Health is considered in the frames of biopsychosocial and ecological paradigms. These paradigms holistically explain health as a result of complex interaction of biological, psychological and social factors at multiple levels and as an integral part of individual's physical, natural, social and cultural environment. The biopsychosocial and ecological understanding of health leads to discussion of health promotion as the combination of strategies conducive to health. Health education is seen as one of the key tools in the context of health promotion, which aims at increasing health awareness or changing health attitudes of individuals. It is underlined that social psychological models of health education are based on social psychological theories of health behavior, including the Health Belief Model, Theory of Planned Behavior, Theory of Social Learning. Social psychological models of health education allow to use ideas of developing education, active learning and modeling. Since health behaviour is one of components of health attitude in personality some research data on the relationship between psychosocial personality's characteristics and healthy nutrition and physical activity are presented in the paper. It is shown that such psychosocial peculiarities as self-efficacy, health locus of control, personality traits, psychological well-being might be targets for health educational programmes.

Keywords: health, health promotion, health education, social psychological models of health education, health attitude.

INTRODUCTION

Health as a value has one of the important positions in the individual and social hierarchy of values. Even though there are more than hundred definitions of 'health' and 'illness' in the modern literature, the definition given by World Health Organization (WHO) in 1948 is still among popular: 'health is a 'a state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity' (WHO, 1948). This definition underlines that health has not only biological peculiarities, but psychosocial, that health status is dependent on biological, psychological and social determinants. One of the main contributing factors for health state is attitude towards health in personality.

The crucial idea is to understand how to assist people to see the health not as a tool for achieving different goals but as a valuable need. Valuable attitude towards health is one of the key questions in the modern social psychology of health. It is suggested that 50 – 57 % of the health gradient may be due to differences in health attitudes and health related behavior (Lisitzin, 2010). In other words, tobacco, alcohol and drug use, unhealthy diet, sedentary lifestyle, law level of adherence to prescribed medical screening and prevention treatment and many other behavioral risk factors raise significant issues connected to programmes aiming to make positive changes in health behavior. For instance, according to WHO's

statistical data, 80% of premature heart attacks and strokes could be prevented if people follow healthy diet, regular physical activity and do not use tobacco products. Consuming a healthy diet including at least 400 g (5 portions) of fruits and vegetables a day and iodized salt helps to prevent cardiovascular diseases and diabetes (WHO's Health Topics). In relation to this health education may contribute to the formation of valuable attitude towards health.

In order to understand social psychological aspects of health education the present paper addresses the following objectives: 1) to give a general overview on biopsychosocial and ecological understanding of health; 2) to analyze main ideas of health education and what educational technologies and methods are effective in health promotion; 3) to discuss research data on the social-psychological determinants of health behaviour as a component of valuable health attitude as target for health education.

LITERATURE REVIEW

A brief overview of health's models is essential before discussion of social psychological aspects of health education because it shows what theoretical ideas define health educational models, what kind of methodology and educational technologies are used by health educator. As it was pointed out "…those who seek to educate about health are subject not only to the intrinsic controversies of education but have also to address the problem of defining the nebulous notion of health" (Tones et al, 1990, p.1).

Social-psychological understanding of valuable health attitude is based on biopsychosocial model of health and illness and ecological paradigm towards health. For a long period of time the biomedical model of health and illness has been the dominant model for several centuries. Although this model has proven to be very effective in treating disease it is limited because it disregards the fact that health and illness are the outcomes of an interaction of social, psychological and biological factors (Lovallo, 1997).

The mentioned above WHO's definintion of health is one of the examples of biopsychosocial model of health and illness. It holistically explains health as a result of complex interaction of biological, psychological and social factors at multiple levels. This model shows ecological-systemic understanding of health (Engel, 1977; Lehman et al, 2017).

According to the ecological paradigm of health a human being is understood as an integral part of his/her physical, natural, social and cultural environment. There are several key characteristics of health in ecological approach (Kickbusch, 2007; Vasilyeva & Filatov, 2001): 1) health is multidimensional phenomenon; 2) health is seen via dynamic balance and interaction of an individual with environment, which are holistic and integrated; 3) health is both a process of active adaptation of individual to changing conditions of environment and its result; 4) health is related to spiritual and emotional individual well-being as well to cultural life styles.

I. Kickbusch shows that ecological model is comprehensive because it is concerned with the whole individual in its environment. It considers all range of health determinants, takes into account cultural and personal meanings of health, aims to understand emotional and behavioral sides of health. This model allows to discuss primary health care, disease prevention and health promotion. For example, the ecological approach to health promotion includes both the need to conserve natural resources and to respond to the environmental factors (e.g.,urbanization, technology) changing individuals' lives (e.g. Bennet&Murphy,

1997). In other words, the ecological understanding of health underlines the individual's position at the center of complex interaction of social, cultural and physical environment.

The biopsychosocial and ecological approaches to health allow to discuss health promotion and health education. For example, it was found that smokers from working class rationally choose smoking as a way to cope with stress and adverse material circumstances (Jacobson, 1981); that eating habits of adolescents and their family are in the reciprocal interrelationship, in particular, there is the influence of children on the consumption of unhealthy products by all the family (De-Bourdeaudhuij, Van-Oost, 1998). Therefore health promotion and health education should consider how habitual behaviours of people are related to their social environment.

Health promotion is defined as 'the process of enabling people to increase control over, and to improve their health' (Ottawa Charter for Health Promotion, 1986). This process involves the complex of educational and environmental actions conducive to health (Kok et al, 2004; Smith et al, 2006). Health education is considered as one of the key tools in the context of health promotion. According to WHO, health education 'comprises consciously constructed opportunities for learning involving some form of communication designed to improve health literacy, including improving knowledge, and developing life skills which are conducive to individual and community health' (Health Promotion Glossary, 1998). In other words, health education is any combination of educational technologies which aimed at helping individuals and communities to improve their health by increasing health awareness or changing their health attitudes.

There are three main models of health education – preventive, radical-political and social-psychological models (Tones et al, 1990; Charlton, 1997). For instance, the medical or preventive model is the traditional and orthodox approach. It is based on informing people about health and diseases, about what kind of risky practices and unhealthy habits lead to health disturbances. It is supposed in the frames of this model that it is more than enough to inform the person about the dangers or benefits related to unhealthy or, on contrary, to healthy practices, as he or she would start to change his or her own behaviour. One of the examples: people would stop smoking in order to reduce the risk of heart or cancer diseases. In other words, the goal of preventive or medical model is to persuade the individual to take responsible decisions, i.e.to perform healthy habits, use medical services appropriately, follow medical recommendations and change lifestyle in case of disease. Since this model is oriented on monologue, edification, fear arousal, such approach rather inhibits people' intention to follow a healthy lifestyle, especially in children, than stimulates it.

Social psychological models of health education are directed to formation of appropriate healthy practices in different high-risk life situations, training of skills to resist social pressure and development of decision making skills. These models are based on social psychological theories of health behavior, including the Health Belief Model (M.Becker), Theory of Planned Behavior (I.Ajzen), Theory of Social Learning (A.Bandura). For example, normative beliefs of adolescent about smoking may be associated not only and not so much with negative attitudes of adults towards this habit. The adolescent's beliefs are primarily related to his or her perception of smoking as a way of self-expression, as a way to achieve a status position in the reference group. Therefore, social psychological models of health education are oriented on creation of such environmental conditions in relation to smoking that this habit would become unattractive for adolescents.

The literature review shows that social psychological models of health education are based on idea of developing education. It is a social psychological idea because it considers subject-subject interaction of educator/teacher and pupils, their collaboration; children' activity, their individual, age and gender differences, motivational and emotional behavioural peculiarities. For example, one of the practical projects – developmental pedagogy of health improvement in preschool settings – is realized on the A.V. Zaporozhets's ideas (Kudriavtsev, 2005). It takes into account development of imagination and meaningful motorics in preschool children, formation of their capacity for cooperation and empathy.

One of the main concepts in social psychological models is health attitude. Health attitude is an individually specific attitude of a person 'to be healthy'. It includes three main components according to V.Myasishev's theory of attitudes – cognitive, emotional and behavioral (Berezovskaya&Nikiforov, 2003). Cognitive component characterizes knowledges of person about his/her own health and factors which influence it positively or negatively. Emotional component encompasses person's feelings, emotions and emotional resources related to his/her health status. Behavioral component is defined by presence or absence of actions directed to support of one's own health or coping with illness conditions.

There are many definitions of health behaviour in the health psychology literature. Harris and Guten (1979) define health protective behaviour as 'any behavior performed by a person, regardless of his or her perceived or actual health status, in order to protect, promote or maintain his or her health, whether or not such behavior is effective toward that end' (p.19) The analysis of health related behaviour takes into account several aspects. First of all, motives of health practices performed by people. For example, people may follow certain diet only for improving their appearance, but not for maintaining their health (Steptoe &Wardle, 1996). In other words, different motives may lead to the same health practices. Second of all, the consequences of health behaviour should be evaluated not only in individual but also in social context. Even if people perform health protective behaviour, it should be understood from the point of view of socio-cultural context (e.g. avoiding alcohol because of religious reasons).

Also, it is necessary to consider which of certain practices or actions construct health behaviour for its better understanding. The researchers emphasize the multidimensionality of health behaviour. This holistic approach allows not only conceptualization of health behaviour, but also its operationalization, measurement and specified targets for its modification (Harris & Guten, 1979; Vickers et al, 1990). Health and safety practices, actions related to preventive health care, environmental hazard avoidance, harmful substance avoidance, traffic regulations and accident control and other components were singled out according to numerous psychological studies (e.g. Harris & Guten, 1979; Vickers et al 1990). For example, healthy nutrition includes choice and intake of safe food, healthy eating and dietary habits; physical activity consists of walking, cycling, or participating in sports.

Health behaviour is determined by various sets of factors such as socio-demographic (sex, age, education and social status), socio-economic and legislative (e.g. socioeconomic status, laws restricting the advertisement of alcohol), socio-cultural (e.g. dietary culture), socio-medical (e.g. health care provision, access to health care), psychosocial (e.g. social support, motivational factors). Existing literature analyses a variety of factors which influence or are associated with health and health-related behaviour. These factors include socioeconomic status, ethnicity, level of education, age, sex and gender, social psychological characteristics.

Psychosocial characteristics play an important role in explanation of why people follow healthy lifestyles.

Healthy nutrition and physical activity are one of the most key components of health behaviour which significantly contributes to maintenance of health, prevention of diseases and coping with their negative consequences. That is why some research data on psychosocial aspects of healthy nutrition and physical activity are discussed in this article.

METHODOLOGY

The relationship between psychosocial personality's characteristics (motivational features, personality traits, his/her psychological well-being) and healthy nutrition and physical activity will be presented below on the base of some empirical data from several research projects of health behavior in adults and teenagers.

Sample and method. The participants (adults' sample of 122 females and males, teenagers' sample of 200 girls and boys) were asked to indicate how well the specific health actions described his/her typical behaviour and to answer psychological questionnaires. Health practices were studied with the help of list of items which composes healthy nutrition (e.g. 'Eat sensibly', 'Avoid eating fast food', 'Have a balanced diet') and physical activity (e.g. 'Do physical exercises'). Motivational characteristics of adults were evaluated using Multidimensional Health Locus of Control (by Wallston et al, 1978), Self-Efficacy Scale (R.Schwarzer, M. Jerusalem), individual personality's features – the *Freiburg Personality Inventory, psychological well-being* - The *Ryff* Scale of *Psychological Well-Being. Motivational features of teenagers were studied using* Self-Efficacy Scale (R.Schwarzer, M. Jerusalem), Self-Regulation Style Questionnaire (V. Morosanova), Self-Assertion Scale for Teenagers.

Data analysis was performed by the SPSS 14.0 software. Descriptive, inferential statistics (Independent Samples Student's Test or Mann-Whitney Test depending on normality of distribution) and correlation analysis (Spearman's Rank Correlation Coefficient) were used.

RESULTS

Motivational peculiarities. Healthy nutrition and physical activity as health-related behaviour can be governed by specific characteristics of human being motivational sphere such as locus of control and self-efficacy. The locus of control concept could be defined as person's belief that he/she has control over their health, including healthy nutrition and physical activity (Wallston et al, 1978). It was shown that people with internal health locus of control more likely find information on health, follow healthy diet and physical activity (e.g. Wallston et al, 1976; Wallston &Wallston, 1982). *Self-efficacy is seen as sense which* concerned with perceived capabilities to produce effects and personal influence. It has been found that self-confident people more often that non-confident ones perform health practices, e.g. people with high self-efficacy were less likely to relapse to their previous unhealthy diet (Schwarzer & Fuchs, 1996).

As can be seen in Table 1, adults with internal health locus of control scored significantly higher on 'healthy nutrition' ($t=-2.769$, $p<0.05$) and 'physical activity' ($t=-2.696$, $p<0.05$) than participants with external health locus of control.

These data are confirmed by correlational analysis which revealed statistically significant positive correlation between healthy nutrition and internality (r_s=0.259, p<0.01) and self-efficacy (r_s=0.226, p<0.05), physical activity and internality (r_s=0.206, p<0.05). It allows to conclude that individual's belief in his/her own capacities and disposition to rely on oneself determines high behavioral activity in the sphere of healthy nutrition and physical activity.

Table 1. Means and Standard Deviations in Groups with External and Internal Locus of Control (N=122, adults)

Components of Health Behaviour	**Participants with external health locus of control** (N=53)		**Participants with internal health locus of control** (N=69)		**Student's test, p<0.05**
	M	**SD**	**M**	**SD**	
Nutrition	1,16	1,10	1,84	1,56	**-2,769***
Physical activity	1,01	,77	1,43	,93	**-2,696***

As can be seen in Table 2, there are statistically significant positive correlations between healthy nutrition scale and self-efficacy (r_s=0.306, p<0.01), constructive self-assertiveness (r_s=0.215, p<0.01), self-regulation (r_s=0.142, p<0.05), planning (r_s=0.182, p<0.01), programming (r_s=0.144, p<0.05), results' evaluation (r_s=0.206, p<0.01) in the teenagers sample. Also there are positive correlations between physical activity and self-efficacy (r_s=0.141, p<0.05), constructive self-assertiveness (r_s=0.165, p<0.05), self-regulation (r_s=0.201, p<0.01), modelling (r_s=0.165, p<0.05), programming (r_s=0.173, p<0.05), results' evaluation (r_s=0.215, p<0.01).

Table 2. Bivariate Correlations of Healthy Nutrition, Physical Activity and Psychosocial Indicators (N=200, teenagers)

Components of Health Behaviour	Self-Efficacy	Constructive self-assertiveness	Self-Regulation	Planning	Modelling	Programming	Results' Evaluation
Nutrition	,306**	,215**	,142*	,182**	,127	,144*	,206**
Physical activity	,141*	,165*	,201**	,073	,165*	,173*	,215**

*** - p <0,05 **- p <0,01**

Personality traits. The correlational analysis showed that there are statistically significant negative association between healthy nutrition scale and spontaneous aggressiveness (r_s=-0.257, p<0.01), depressiveness (r_s=-0.219, p<0.05), irritability (r_s=-0.398, p<0.01), shyness (r_s=-0.185, p<0.05), and emotional lability (r_s=-0.245, p<0.01) as personality traits (Table 3). Also there is a statistically significant negative correlation between physical activity scale and depressivity (r_s=-0.197, p<0.05).

Psychological well-being is multidimensional concept consisting of person's self-acceptance, skills to establish quality ties to others, sense of autonomy, ability to manage complex environments to suit personal values, to develop as a person. It has been explored that success of weight loss programme and improvement of nutrition behaviours are related to the

development of psychological well-being in individuals with the help of Kripalu yoga (Braun et al, 2012).

Table 3. Bivariate Correlations of Healthy Nutrition and Physical Activity Indicators and Personality Features (N=122, adults)

Components of Health Behaviour	Spontaneous Agression	Depressivity	Irritability	Shyness	Emotional Lability
Nutrition	**-,257****	**-,219***	**-,398****	**-,185***	**,-245****
Physical activity	-,009	**-,197***	-,167	-,155	-,152

The results of correlational analysis between health behaviour components and indicators of psychological well-being are given in Table 4. The analysis of the relationship between total healthy nutrition score and psychological well-being dimensions showed that there are positive correlations of adequate nutritional practices and general indicator of psychological well-being (r_s=0.188, p<0.05), positive relations with others (r_s=0.248, p<0.01), environmental mastery (r_s=0.266, p<0.01), self-acceptance (r_s=0.238, p<0.01). It was found one positive correlation between physical activity score and positive relations scale (r_s=0.188, p<0.05).

Table 4. Bivariate Correlations of Healthy Nutrition and Physical Activity Indicators and Personality's Psychological Well-Being (N=122, adults)

Components of Health Behaviour	Positive Relations	Autonomy	Environmental Mastery	Self-acceptance	General Psychological Well-Being
Nutrition	**,248****	,128	**,266****	**,238****	**,188***
Physical activity	**,188***	,105	,159	,163	,166

DISCUSSION

The present article has focused more on discussion of social psychological perspective for health education. The studies on social-psychological aspects of valuable health attitude in personality have a great significance from the point of view of practical implications for health education. For example, in order to make health education programmes and initiatives to encourage the consumption of healthy diet in the general population effective it is necessary to take into account different psychosocial characteristics of target groups.

Social psychological factors play an important role in understanding person's healthy nutrition and physical activity. The literature review shows that the considerable body of studies on the psychosocial correlates of healthy nutrition and physical activity

- reveals influence of psychological factors on food choice and physical activity (e.g. Dishman et al, 1980; Babicz-Zielińsk, 2006; Lacaille et al, 2011);
- attempts to find associations between eating, dietary habits and physical exercise and self-attitudes, including self-esteem, 'self-silencing', self-regulation (e.g. Gellert et al, 2012);
- analyses how different motivational and emotional characteristics such as perceived behavioral control, locus of control, self-efficacy may possibly influence person's eating behaviors, dietary habits and physical activity (e.g. Anderson et al, 2006; Strachan & Brawley, 2009).

The results presented in the article show that individual's belief in his/her own capacities and disposition to rely on oneself determines high behavioral activity in the sphere of healthy nutrition and physical activity. It was found that those teenagers who are characterized by high self-efficacy, flexible and adequate reactions to environment, independence, conscious and realistic planning of activity are more confident in their choice of healthy nutrition, performance of healthy eating and physical activity.

The results might mean that if persons demonstrate less signs of spontaneous aggressiveness, depressiveness, irritability and emotional lability, then they are more active in performing healthy dietary, nutritional practices. It is possible that physically active people are less likely to experience depressive feelings.

The character of revealed correlations reflects the specific dynamics in the personal response to physical activity and especially to healthy nutrition as behaviour. They demonstrate that there is a variety in explanation of relationship between psychological well-being and healthy nutrition. For instance, person's high level of life satisfaction, his/her positive affective emotions explain his/her activity in relation to choice and following to healthy nutrition. If people are characterized by warm, satisfying, trusting relations with others, concerned about their welfare and capable of strong empathy and intimacy, then they have enough power to follow healthy life style in general and healthy nutrition in particular. Also if one possesses a positive attitude toward his/herself, feels positive about past life and acknowledges different parts of his/her life and personality, then he/she is more successful in performing healthy nutrition.

The results given in this article demonstrate that there are different social psychological factors contributing to person's healthy nutrition including choice of safe food, its intake, eating, dietary habits, and physical activity. These results show that according to biopsychosocial and ecological paradigm the modification of behaviour related to healthy nutrition and physical activity assumes not changing only social, political, economic conditions but also careful consideration of individual's role in producing and performing the health practices. According to research data such peculiarities of health behaviour as health locus of control, self-efficacy, personality's traits and his/her psychological well-being might be possible targets in health education programmes.

However, this article does not claim that one or other of the generalisations made are more right. The most important point is to look not only at the statistical significance of results but also at their practical significance.

CONCLUSIONS

Social psychological models of health education refer to deep understanding of such motivational-behavioral peculiarities of health attitude as health locus of control and self-efficacy, and therefore to modelling and active learning as methods for improving these features in people. Since some psychological traits (e.g. spontaneous aggressiveness, depressiveness, shyness, lability) and psychological well-being of personality are related to performing healthy nutritional practices and physical activity, health educational programmes have to include components which aim at development of personal growth and emotional regulation skills. In other words, social psychological models of health education should include not only educational component related to increasing health awareness, but also have to consider changing health attitudes of individual and take into account psychosocial peculiarities of personality in his/her environmental and cultural context.

ACKNOWLEDGEMENTS

I owe a debt of gratitude to all people who participated in the studies for their kind co-operation and time. I am especially thankful to my students K.Avtomanova and O.Makarova who helped to gather research information.

REFERENCES

Anderson, E.S., Wojcik, J. R.,Winett, R.A., Williams, D. M. (2006) Social-Cognitive Determinants of Physical Activity: The Influence of Social Support, Self-Efficacy, Outcome Expectations, and Self-Regulation Among Participants in a Church-Based Health Promotion Study. *Health Psychology, 25,* 510-520.

Babicz-Zielińsk, E. (2006) Role of Psychological Factors in Food Choice – a Review. *Polish Journal of Food and Nutrition Sciences, Vol. 15/56, No 4,* 379–384.

Bennet, P., Murphy, S. (1997) Psychology and Health Promotion. In: Bunton, R., Macdonald, G. (Eds.) *Health Promotion. Disciplines, diversity, and developments.* London and New York: Open University Press, pp.31-51.

Berezovskaya, R.A., Nikiforov, G.S. (2006) Attitude towards Health. In: Health Psychology G.S. Nikiforov (Ed.). St.Petersburg.: Piter, pp.275-292.

Braun, T.D., Park, C.L., Conboy, L.A. (2012) Psychological well-being, health behaviors, and weight loss among participants in a residential, Kripalu yoga-based weight loss program. *International Journal of Yoga Therapy*, 22, 9-22.

Charlton, A. (1997) The Basis of Health Education Principles. *Voprosy Psychologii*, 2, 3-14.

De-Bourdeaudhuij, I., Van-Oost, P. (1998) Family Members' Influence on Decision Making about Food: Differences in Perception and Relationship with Healthy Eating. *Americal Journal of Health Promotion, 13 (2),* 73-81.

Dishman, R.K., Ickes, W. & Morgan, W. (1980) Self-motivation and Adherence to Habitual Physical Activity. *Journal of Applied Social Psychology, 10,*115-132.

Engel, G.L. (1977) The Need for a New Medical Model: A Challenge for Biomedicine. *Science, 4286,* 129-136.

Gellert, P., Ziegelmann, J., Lippke, S., Schwarzer, R. (2012) Future Time Perspective and Health Behaviors: Temporal Framing of Self-Regulatory Process in Physical Exercise and Dietary Behaviors. *Annals of Behavioral Medicine, 43,* 208.-218.

Harris, D., Guten, S. (1979) Health Protective Behaviour: an Exploratory Study. *Journal of Health and Social Behaviour, 20,* 17-29.

Health Promotion Glossary (1998). Geneva, World Health Organization. 36 pp.

Health Topics [Accessed 10th June 2016]. Available from World Wide Web: http://who.int/topics/en/.

Jacobson, B. (1981) The Lady Killers: Why Smoking is a Feminist Issue. London: Pluto Press.

Kickbusch, I. (2007) The Move towards a New Public Health. *IUHPE Promotion & Education Supplement, 2,* 9.

Kok, G., Schaalma, H., Ruiter, R., Empelen, P., Brug, J. (2004) Intervention Mapping: A Protocol for Applying Health Psychology Theory to Prevention Programmes. *Journal of Health Psychology, 9(1),* 85–98.

Kudriavtsev, V.T. (2005) Psychological Foundations of a Developmental Pedagogy of Health Improvement in the Light of A.V. Zaporozhets's Ideas. *Voprosy Psychologii, 5,* 101-112.

Lacaille, L.J., Dauner, K.N., Krambeer, R.J., Pederssen, J. (2011) Psychosocial and Environmental Determinants of Eating Behaviors, Physical Activity, and Weight Change among College Students: a Qualitative Analysis. *Journal of American College Health. 59(6),* 531-538.

Lehman, B.J., David, D.M., Gruber, J.A. (2017) Rethinking the Biopsychosocial Model of Health: Understanding Health as a Dynamic System. *Social and Personality Psychology Compass, 2017, 11:e12328.* https://doi.org/10.1111/spc3.12328.

Lisitzin, Y. P. (2010) Public Health and Health System. 2nd Edition. Moscow.: GEOTAR-Media.

Lovallo, W. (1997) Stress and Health: Biological and Psychological Interactions. London: Sage Publication, Inc.

Ottawa Charter for Health Promotion. First International Conference on Health Promotion, Ottawa, 21 November 1986. [Electronic Source] Available from World Wide Web: http://who.int (accessed 15th May 2009).

Schwarzer, R., Fuchs., R. (1996) Self-efficacy and Health Behaviours. In: Conner M., Norman P. (Eds.) *Predicting Health Behaviour: Research and Practice with Social Cognition Models.* Open University Press, pp. 163-196.

Smith, B.J., Tang, K. C., Nutbeam, D. (2006) WHO Health Promotion Glossary: New Terms. *Health Promotion International Advance Access, September 7,* 1-6.

Steptoe, A., Wardle, J. (1996) The European Health and Behaviour Survey: The Development of an International Study in Health Psychology. *Psychology and Health, 11,* 49-73.

Strachan, S., Brawley, L. (2009) Healthy-Eater Identity and Self-efficacy Predict Healthy Eating Behavior: a Prospective View. *Journal of Health Psychology, 14(5),* 684-95.

Tones, K., Tilford, S., Robinson, Y.K. (1990) Health Education. Effectiveness and Efficiency. Springer Science+Business Media Dordrecht.

Vasilyeva, O., Filatov, F. (2001) Psychology of Health: Standards, Notions, Attitudes. Moscow 'Academia'.

Vickers, R., Conway, T., Hervig L. (1990) Demonstration of Replicable Dimensions of Health Behavior. *Preventative Medicine, 19,* 377-401.

Wallston, K. A., *Maides,* S. A., & *Wallston,* B. S. *(1976). Health related information* seeking as a function of *health related* locus of control and health value. *Journal of Research in Personality, 10,* 215-222.

Wallston, K., Wallston, B. (1982) Who is Responsible for Your Health? The Construct of Health Locus of Control (1982) In: Sanders, G., Suls, J. (Eds) (1982) 'Social psychology of health and illness'. Lawrence Erlbaum Associate, Inc., pp. 65-95.

Wallston, K., Wallston, B. et al (1978) Development of the Multidimensional Health Locus of Control (MHLC) Scales. *Health Education Monographs, 6,* 161-70.