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**HEALTHY LIFESTYLE AND ATTITUDE TO THE ILLNESS OF  
HEALTHY PEOPLE**

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*Abstract*

The presented study explores the relationship between the healthy lifestyle and the attitude to illness on the part of people having no chronic illnesses. The goal was to identify the ways in which the attitude to illness, as well as age and gender factors, influence the formation of the healthy lifestyle. The research covered 413 people (127 men and 286 women) aged from 17 to 65. To explore the healthy lifestyle, HPLP-II (Walker) questionnaire and a general questionnaire were used. The type of attitude towards illness was studied using the TOBOL questionnaire (aiming to identify the attitude to illness). The authors explored the extent of healthy lifestyle parameters and the attitudes to illness in age and sex groups. The lower values of the general healthy lifestyle parameter in young people were identified. The differences in the healthy lifestyle of men and women in terms of parameters "attitude to one's health", "nutrition" and "interpersonal interaction" were shown, demonstrating predominance in women. "Physical activity" is more typical for men. No differences in the common indicator were revealed. The analysis of attitude to illness in healthy people showed the predominance of Anosognosic and Ergopathic types. Using the path model, it was shown that the type of attitude towards illness is conditioned by age and influences the healthy lifestyle.

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**Keywords:** Health-Promoting Lifestyle, illness, healthy people



## 1. Introduction

As a general trend in the modern society, one can note a growing interest in the issues concerning the relationship between health and lifestyle (Dobroradova, 2009; Dudchenko & Perfil'eva, 2009). Possibly, the observed trend is conditioned by the specific way of life of the modern society in which one does not have due time to take care of themselves and their health. The analysis of the national literature devoted to this problem has shown that the healthy lifestyle is predominantly understood as abandonment of bad habits (smoking, drinking alcohol, non-observance of sleep schedule, lack of physical activity, etc (Bobrecova & Plaksin, 2010). The empirical research of the healthy lifestyle made by the Russian scientists is carried out in two directions. The first one explores one's behaviour connected with recreational measures allowing one to preserve and improve their health (Smolenskij et al., 2018). The second direction focuses on the behaviour connected with a person's activity, often designated as self-preserving behaviour. Most foreign studies of healthy lifestyle are carried out in terms of preventive medical measures (Daniel, 1979; Fishbein, Triandis, & Kanfer, 2001; Fries, 2002), in the context of direct interaction with medical personnel. An interesting approach is offered by Professor Walker and a group of researchers (1987, 1996). The Health-Promoting Lifestyle Profile (HPLP-II) allows one to assess the concomitant factors influencing the behaviour aimed at maintaining health. This questionnaire is widely used by foreign researchers to assess the healthy lifestyle, both among healthy people and in the context of certain illnesses. The results of cross-cultural studies have shown high efficiency of the method (Pinar, Celik, & Bahcecik, 2009). We turned to this psychodiagnostic toolware after psychometric assessment of the questionnaire's consistency scales, based on the Russian sample.

It is known that the healthy lifestyle is connected with many factors. These factors include education, financial well-being, family structure, age, physical abilities, etc. Depending on their ratio, certain ways of life are distinguished, with their own specific attitude to health and the ways aimed to improve it. One of the subsystems, the most important for medical psychology, typical of a person who has faced health problems, is the attitude to the illness (Vasserman, Vuks, Iovlev, & Karpova, 2005). Myasishchev's concept of treatment is based on the notion of three components of the attitude: emotional (reflects the whole spectrum of feelings and emotional experience connected with the illness); behavioural (development of behavioural strategy in the context of the illness) and cognitive (awareness and comprehension of the role of illness, as well as the impact on vital functioning). We believe that in terms of personal characterisation, the type of attitude towards illness is important in studying the healthy lifestyle. The type of attitude to illness determines one's behaviour in a situation of health problems, therefore, it favours the healthy lifestyle. In this regard, it is important to study the attitude to illness and healthy lifestyle in people who do not have serious health problems, since this category of people may represent a risk group.

## 2. Problem Statement

The researchers are increasingly aware that people who do not have chronic diseases may be at risk of unhealthy behaviour. In modern scientific literature, the type of attitude towards illness is explored in the context of a particular disease. The study of the healthy people's way to respond in case of health problems and adaptation to the new state remains underdeveloped; however such people may present a

special psychological-risk group due to the irresponsible attitude to their health, till some expressed symptoms of the disease appear. The study involving the attitude to the illness makes it possible to extend the concept of healthy behaviour.

### 3. Research Questions

As a research hypothesis, we put forward the following assumptions:

- The healthy lifestyle in people with no health problems has specific differences in terms of age and gender.
- The type of attitude to illness influences the healthy lifestyle and is connected with age.

### 4. Purpose of the Study

The objective of the presented research is to study the healthy lifestyle and the type of attitude towards illness in healthy people in terms of sex and age groups; to identify the role of attitude to illness in the healthy lifestyle structure.

### 5. Research Methods

#### 5.1. Participants

The given research covered 413 people (127 men and 286 women) aged 17 to 65, who did not have any serious diseases at the time of the study. All of the research participants live in St. Petersburg, are employed in various professional fields, most of them have higher education (71.8%).

#### 5.2. Measures

The study of the healthy lifestyle was carried out using the Health-Promoting Lifestyle Profile - HPLP-II questionnaire (Walker et al., 1987, 1996), with the permission of the authors of the method. The questionnaire includes 6 scales: Health Responsibility, Physical Activity, Nutrition, Spiritual Growth, Interpersonal Relations, Stress Management. The psychometric analysis of the Health-Promoting Lifestyle Profile [HPLP] questionnaire based on the Russian sample showed the contentive and convergent validity of the method. Cronbach's  $\alpha$  aptitude index proved to be 0.888 for the entire questionnaire, which evidences fair internal consistency. The alpha coefficients for the scales range from 0.608 to 0.805. High consistency for both the entire questionnaire and the six scales was observed; the aptitude index analysis has shown due stability (Petrash et al., 2018, in print).

A questionnaire specifically designed for the study of the healthy lifestyle was also used. The questionnaire includes several scales. The "Sleep Hygiene" scale includes 3 sections: sleeping problem - "Do you have problems with sleeping?"; sleep pattern - "Do you observe the sleep schedule?" and getting enough sleep - "Do you have a good night rest in terms of time necessary for you to recover?". The scale "Nutrition Culture" answers the question: "Do you have a clear idea of nutrition culture and do you keep to a balanced diet?". The scales "Alcohol Use" and "Smoking" refer to bad habits and reflect dependence on the above.

The questionnaire for psychological diagnostics of attitudes to illness (TOBOL) by Wasserman et al. enables one to identify 12 types of attitude, combined into three blocks. The first block includes the

harmonic, ergopathic and anosognosic types which reflect no significant impairment of mental and social adaptation. The second block includes the types characterized by intra-psyche style of personal response to illness, accompanied by maladaptive behaviour in the emotional-affective sphere (anxious, hypochondriacal, neurasthenic, melancholic and apathetic types). The third block covers sensitive, egocentric, paranoiac and dysphoric types, characterized by inter-psyche response to the illness, with sensitized attitude to it. The scale with the highest sum of diagnostic factors is leading in diagnosing a type. If the value is dominating, a "pure" type is diagnosed. If the profile includes one or two scales, with the values within the diagnostic zone (7 points), then a "mixed" type is diagnosed. If more than three scales fall within the interval equal to seven points, then a "diffuse" type is diagnosed. *Statistical Analyses*. The statistical data processing was made using SPSS 20 and AMOS 20 software packages.

## 6. Findings

### 6.1. Healthy lifestyle

The data on extent of the healthy lifestyle parameters in age groups are presented in Table 1. The comparative analysis was performed using ANOVA single-factor analysis of variance. Some differences in the parameters "nutrition", "spiritual growth" and "stress management" have been revealed. The least favourable situation regarding the culture of nutrition and stress management is observed among the youngest participants of our study. The least extent of internal growth is observed in the older age group. The analysis of personal data has shown that the representatives of the first and second age groups significantly differ from the participants of older age in adherence to bad habits. The number of people dependent on tobacco smoking is higher in the groups of middle and late adulthood ( $F = 12.523$ ,  $p = .000$ ). The negative attitude towards alcohol is expressed in young people of the first group ( $F = 15.986$ ,  $p = .000$ ). This factor can be called positively prognostic. Sleeping problems are also most pronounced in the first group. Overwhelmingly, young people do not get enough sleep ( $F = 5.936$ ,  $p = .001$ ); normally they go to bed after midnight ( $F = 5.480$ ,  $p = .001$ ).

**Table 01.** Descriptive statistic of Study Variables on the Healthy lifestyle in the age groups

Parameters of Healthy lifestyle	17-21 (n=181)		22-29 (n=67)		30-44 (n=88)		45-65 (n=77)		F
	M	(SD)	M	(SD)	M	(SD)	M	(SD)	
Health Responsibility	19.41	(4.69)	20.28	(4.22)	20.05	(5.33)	19.90	(4.54)	0.73
Physical Activity	16.66	(5.60)	18.28	(5.55)	17.43	(6.14)	16.45	(5.56)	1.73
Nutrition	21.45	(4.78)	23.31	(5.16)	22.65	(4.47)	23.19	(5.06)	3.86**
Spiritual Growth	27.36	(4.33)	28.31	(3.77)	27.06	(4.72)	25.47	(4.19)	5.68***
Interpersonal Relations	28.93	(4.64)	29.73	(3.95)	28.41	(4.50)	28.01	(3.83)	2.14
Stress Management	18.54	(4.03)	20.07	(4.11)	19.97	(4.36)	19.61	(3.89)	3.80**
Total	132.4	(19.5)	140.0	(16.8)	135.6	(21.9)	132.6	(18.5)	2.83*

Note. \* $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$ .

The revealed tendency is quite expected, since the first group includes students who need to switch to a new rhythm of life, to process significant volumes of educational material, to master a new social situation of development, etc. The sleep and rest schedule therefore is disrupted. There are no differences in age groups regarding nutrition culture. In most cases, the people turn to the balanced diet when it comes to it or from time to time.

The attitude towards the healthy lifestyle differs in men and women in several ways. Our result shows that the care of one's health, adherence to the nutrition culture, as well as interpersonal interaction,

is more pronounced in women. Men are distinguished by greater physical activity. As concerns adherence to bad habits, differences in smoking habits have been revealed, which parameter is higher in the men group ( $p = .022$ ). As to the attitude to alcohol: no difference was marked. The following tendency has been revealed: 40.5% of men and 52.1% of women rarely consume alcohol; 22% of men and 20% of women never drink it; 20% of men and women consume it moderately. Predominantly women's problems in terms of sleep and rest hygiene have been revealed ( $p = .000$ ). Women report difficulties in sleeping more frequently, they have less possibility to get enough sleep, unlike men. No differences have been identified regarding nutrition. Both women and men rarely turn to balanced dieting.

## 6.2. Type of attitude to illness

According to the data presented in Table 2, it can be seen that all age groups show "anosognosic" (from 47% to 53%) and "ergopathic" (from 18% to 29.3%) types of attitude to illness, as dominant. The other types are presented as singular examples. The revealed tendency is quite natural, since all of our participants did not have serious diseases by the time of the study.

**Table 02.** Descriptive statistic of Study Variables on the attitude towards illness

Age	Harm	Erg	Anoz	Anx	Hyp	N	M	Apath	S	Egoc	P	D
17-21	,5	31,6	53,0	3,4	-	2,3	,6	2,6	5,5	,5	-	-
22-29	1,6	23,8	50,8	1,6	-	4,8	-	1,6	9,5	1,6	1,6	3,2
30-44	-	18,1	51,8	6,0	1,2	7,2	1,2	2,4	7,2	2,4	2,4	1,2
45-65	8,2	23,3	46,6	4,1	4,1	2,7	1,4	2,7	5,5	1,4	1,4	-

Note. Hrm-Harmonic; Erg-Ergopathic; Anz-Anozognostic; Anx-Anxious; Hyp-Hypochondrial; N-Neurasthenic; M-Melancholic; Apath-Apathetic; S-Sensitive; Egoc-Egocentric; P-Paranoid; D-Dysphoric.

On the one hand, we could observe active rejection of the assumption of illness, of possible consequences, i.e. the illness is regarded as insignificant or as an accidental fluctuation of the physical condition. On the other hand, we could observe obsession for work, characterized by "withdrawal from illness into work". The groups of men and women show a similar pattern.

## 6.3. Path modelling

To verify our assumptions, we undertook a path modelling analysis. Path model shows specific interrelation between the age, gender and attitude to illness and the general indicator of the healthy lifestyle. The positive effect of the ergopathic type on the formation of healthy lifestyle has been revealed. The desire to preserve one's professional status, in the event of health problems, contributes to turning to the healthy lifestyle. In turn, the balanced and apathetic types correlate negatively with the behaviour aimed at preserving one's health. It can be assumed that the lack of realistic assessment of one's health (low extent of Balanced type), as well as excessive care of it (low extent of Apathetic type), makes a person reconsider the lifestyle towards healthy behaviour. The age factor is negatively correlated with all three types. This fact indicates that the ability for realistic, balanced assessment of one's health is lost with age; the obsession with work degrades to the detriment of health; the mediations on one's fate in the

context of health appear. The gender factor has revealed positive interdependence with the balanced attitude to the illness, which evidences the balanced type to be more expressed in women. Thus, it can be assumed that the ergopathic tendency in young people contributes to the healthy lifestyle, while the expressed harmonic and apathetic types contribute to its mitigation. The eldest research participants show the opposite. The reduced obsession with professional activity favours weak urge towards the healthy lifestyle. In case of comprehension of the unfavourable situation regarding one's health and excessive care of it, orientation towards "healthy behaviour" is observed. The model goodness-of-fit values are within acceptable limits with regard to the sampling scope, that is, the model is empirically confirmed ( $\chi^2=5.622$ ;  $df=6$ ;  $\chi^2/df=.937$ ;  $p=.467$ ;  $CFI=1.000$ ;  $GFI=.995$ ;  $RMSEA=.000$ ;  $PCLOSE=.879$ ).

The path model analysis shows the mechanisms of interaction between the attitudes to illness and the healthy lifestyle, depending on the age and sex aspect. The results emphasize the role of attitudes to illness in forming one's behaviour aimed at studying the healthy lifestyle, and are important for exploring the phenomenon.

## 7. Conclusion

During the study, we have analysed the parameters of the healthy lifestyle in representatives of different age groups, as well as in groups of men and women.

- The lowest values of the healthy lifestyle general parameter have been revealed for the young people group. The differences in the parameters "nutrition" and "stress management" have been identified, that are least pronounced in the youngest participants in our research. The least extent of the parameter "spiritual growth" is observed in the eldest age group.
- The differences in men's and women's healthy lifestyle have been identified for the parameters "attitude to one's health", "nutrition" and "interpersonal interaction", towards greater pronouncement in women. "Physical activity" is more typical of men. No differences in the overall indicator have been revealed.
- The analysis of the healthy people's attitude to illness has shown the predominance of the Anosognosic and Ergopathic types. The revealed tendency is valid for age and sex groups.
- The study has shown that the specific attitude towards illness is conditioned by age and influences the healthy lifestyle.
- Using the path modelling analysis, the following specific features have been revealed: the ergopathic type in young people contributes to the healthy lifestyle, while the expressed harmonic and apathetic types contribute to its mitigation. The reduction of extent of the ergopathic type in older participants of the study leads to reduced orientation towards "healthy behaviour", while the reduced extent of the balanced and apathetic types is connected with formation of healthy lifestyle.

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