THE EMERGING TEACHERS' COMPETENCE FOR IMPROVING HEALTHY LIFESTYLE AND FACTORS IMPACTING IT

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Abstract: This publication analyses and discusses the aspects of healthy lifestyle implementation competence in the personal life of students and future teachers, viewing it as a potential contribution to their professional career. The correlation of internal factors such as students' attitudes, knowledge, skills and abilities and influence of external factors of social environment are analysed as healthy lifestyle competence. The empirical study focuses on two priority healthy lifestyle components –physical activity and the development of healthy eating habits in relation to the conditions provided by a higher education microsystem formulating a proposal for improving the interaction of these factors. For achieving the research goal, emerging teachers have been surveyed using the methodology developed by Corbin et al. (2008). For statistical analysis of the research data, the SPSS 22.0 program was employed: a method of descriptive statistics, Kruskal-Wallis test, and Kendall's tau-b correlation test. The results of this study prove the differences in competence indicators in relation to the respondents' age and chosen specialization, as well as show the lack of support from professional management and medical staff for implementation of a healthy lifestyle.

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Introduction

A healthy lifestyle does not mean only avoiding diseases. That is a condition for ensuring a successful physical and mental functioning of a human being which manifests itself in an abundance of energy, self-confidence and good mood. In this regard significant indicators are also a fit body, successful daily routine, healthy diet choices, regular physical activities and the avoidance of habits harmful to one's health (Rubana, 1998).

The diverse set of healthy lifestyle indicators limits the ability to precisely define this phenomenon. The knowledge of scientific research suggests that a healthy lifestyle can be defined as a set of certain attributes of a person such as beliefs, expectations, motives, values, as well as cognitive elements. It also implies personality traits, including features of affective and emotional states, patterns of social behaviour as well as activities and habits related to the preservation, restoration and improvement of a person's health (Gochman, 1982, Glanz, Rimer, and Viswanath, 2008).

Analysing scientific knowledge in relation to the healthy lifestyle structure it can be concluded that in this context the following components can be viewed as a priority: (1) regular physical activity; (2) healthy eating habits; (3) stress management; (4) time management; (5) avoidance of harmful habits, (6) safe sexual life, (7) observance of safety rules, (8) knowledge of first aid, (9) observance of personal health habits, including hygiene, (10) seeking for appropriate medical advice and its acceptance, (11) consumer awareness and (12) environmental protection (Conner&Norman, 2017; Corbin et al., 2008; Robbins et al., 2011).

The complex development of such knowledge, skills and attitudes takes place over a long period of time, and this process is influenced by various factors. According to the research results of Cockerham (2005), in a higher education environment a healthy lifestyle practice depends on internal factors which create the individual's disposition for action. In this regard, important incentives are: (1) knowledge, (2) attitude, beliefs and basic values, (3) ability to adapt to life situations, (4) motivation, and (5) person's physiology (Cole, Holtgrave, Ríos, 1993).

At the same time, the findings of scientific research confirm the link between the individual's ability to lead a healthy lifestyle and the external or environmental factors. In the health impact factor model elaborated by Dahlgren and Whitehead (1991) it is stated that political, economic, social, cultural, environmental, behavioural and biological factors are important for ensuring good health. Accordingly, the person's health, besides age, gender and heredity, is influenced by habits and lifestyle, as well as by family and social links, surrounding environment, as well as other factors. In the research of Cockerham (2005) and Fleig (2012) the choice of person's activity is viewed as interaction with the possibilities of the socially-defined structure which determines the person's disposition for action, followed by

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activities that are beneficial or harmful for one's health. Some scientific studies reveal a tendency to establish s link between the individual health and the planet's environment, as they are the outcome of the dominant forms of economic and social development (Graham&White, 2016). In addition to the description of external factors, a healthy lifestyle is also influenced by socio-cultural conditions, political and economic factors, media, social support, accessibility of environment, health care system, and other factors (Cole, Holtgrave, Ríos, 1993; Kaupužs, 2011).

The research subject presented in this publication is the implementation of a competent healthy lifestyle and the individual's ability to improve it. In this context the target audience are students and future teachers. Their involvement in this research can be viewed from two perspectives. First of all, they belong to different age groups, but they all are oriented towards success, perfection of personality and also improvement of their social and economic status. In this context, a healthy lifestyle is an indisputable basis for the ability to be resilient, which determines the effectiveness of individual's performance in the conditions of heavy work load and acute stress (Wustmann, 2004). Secondly, the knowledge, skills, abilities and attitudes of research participants in relation to implementing a healthy lifestyle are considered as a potential contribution to their professional careers. In this case, it is expected that the teacher becomes a social model promoting the motivation of their students to build healthy lifestyle habits.

Consequently, the aim of this research is to analyse the indicators of healthy lifestyle development competence structure of students and future teachers and to formulate a proposal for improving its determinants. The main questions raised in this research study are the following: (1) which internal and external factors are important for implementing the emerging teacher's healthy lifestyle competence; (2) in which areas students should be supported in order to develop a healthy lifestyle during their studies?

Research procedure and design

The data analysed for this publication is part of a long-term research project. It is inspired by the research studies conducted in the sphere of Latvian health and social sciences on health provisions in vocational and higher education institutions. Researchers Trapenciere and Baltiņš (2010), assessing the current legislation, note that insufficient attention is paid to youths' health. In addition, the health monitoring and measures for health improvement take place mainly within the framework of separate social projects. As a result, the researchers have identified a number of problems: (1) young people's adaptation of problems in a new environment, (2) unhealthy diets that cause overweight or underweight, (3) emergence of harmful habits such as smoking and use of alcohol and drugs (4) irresponsible sexual behaviour, (5) unstable mental health, (6) violence, (7) traumas, (8) poor environmental quality and inaccessibility of health services, (9) insufficient health promotion and disease prevention content, and – in particular (10) lack of physical activity.

The respondents involved in this research are Liepaja University students (N=186), 87.6% - female and 12.4% - male students, with different life and study experience and also different potential teaching career pans (See Table 1).

Table 1: Participants

Age of respondents (years)	Group's frequency	Potential qualification	Group's frequency
18 - 25	55.4 %	Basic education teacher	34.8%
26 - 35	18.8%	Pre-school teacher	28.5%
36 - 45	17.7%	Sports teacher	12.4%,
		Special education teacher	8.1%
46 - 55	7.5%	Music teacher	4.3%
		History teacher	3.8%,
Older than 55	0.6%	The respondents have not specified their field	8.1%

Source: Authors

The questionnaire developed by Corbin et al. (2008) is employed in this study emphasizing two of the basic healthy lifestyle components – physical activity and dietary habits. The questionnaire consists of 42 questions. For research purposes several groups of indicators have been identified: internal factors – respondents' attitude, knowledge, skills, abilities, and external factors, that ensure healthy lifestyle in

accordance with both previously mentioned priority healthy lifestyle components (Cronbach's Alpha = 0.901).

This publication summarizes the data acquired during the period of 2016 – 2018. For statistical research data analyses the SPSS 22.0 programme was employed: a method of descriptive statistics, Kruskal-Wallis test, and Kendall's tau-b correlation test.

Research results

Analysing the role of internal and external factors for students and future teachers for implementing a competent healthy lifestyle (Question 1), the data obtained in this study shows that the average value is determined for both healthy lifestyle components, t. i., engagement in physical activities and maintaining healthy dietary habits, as well as for the indicators that characterize them – attitudes, knowledge, skills and abilities, and the influence of external factors (See Table 2).

Table 2: The average value of healthy lifestyle components and indicators

Healthy lifestyle component	Mean	Indicator	Mean
Physical/movement activities	2.017	Attitudes	2.203
		Knowledge	1.872
		Skills	1.887
		Abilities	1.866
		External factors	2.141
Habits of healthy diet	2.026	Attitudes	2.162
		Knowledge	1.878
		Skills	1.790
		Abilities	1.869
		External factors	2.291

Source: Authors

The analysis of research results using a Kruskal-Wallis test prove that average scores of both healthy lifestyle components are similar. In both cases a higher average score is for the attitude and influence of external factors. In turn, the lowest score in the sphere of healthy eating habits is identified for the indicator “skills” (Mean 1.790).

The results of the Kruskal-Wallis test confirm the maximal significant differences ($p = 0.000$) in the ratings of healthy lifestyle components depending on the age of the respondents. Regarding the physical activity, the highest self-evaluation comes from respondents aged 26 to 35 (Mean Rank 2076.69) and aged 18-25 (Mean Rank 1955.66). Accordingly, the lowest score is typical for respondents over 55 (Mean Rank 1826.38).

In the ratings of a healthy diet component, the highest self-evaluation is for respondents aged 26 to 35 (Mean Rank 2175.89). Accordingly, the lowest self-evaluation in this area is typical for respondents over the age of 55 (Mean Rank 1593).

The maximal significant differences ($p = 0.000$) were also determined depending on the respondents' major or potential qualification. Assessing the implementation of physical activities, the highest self-evaluation is for future sports teachers (Mean Rank 2548.93) and students obtaining a music teacher's qualification (Mean Rank 2209.69). In turn, the lowest self-evaluation for implementing physical activities is identified for emerging special education teachers (Mean Rank 1769.47) and history teachers (Mean Rank 1795.28). In terms of healthy eating habits, the self-evaluation of future music teachers is convincingly the highest (Mean Rank 2340.62). In turn, the lowest self-evaluation in this area is characteristic to students who acquire the history teacher’s professional qualification (Mean Rank 1817.72).

Employing the Kruskal-Wallis test, the differences of statistical data are clarified based on the age of respondents and their potential qualifications in connection with the specific indicators for implementing a healthy lifestyle (Table 3).

The results of the statistical data analysis confirm that the highest self-assessment score for indicator "knowledge", component – physical activity, is for respondents aged 18-25. Accordingly, the highest self-assessment score for indicator "abilities" is for respondents aged 46 to 55. In relation to the impact

of external factors, the highest score is for respondents over the age of 55. In conjunction with other indicators the highest rating is characteristic for respondents aged 26 to 35 years. In contrast, in all cases, with the exception of external factors, the lowest rating is observed for respondents aged over 55.

Table 3: Significant differences observed depending on the respondents' age and potential qualification

Healthy lifestyle component	Indicator	Significance of differences (p)	
		in relation to respondent's age	in relation to potential qualification
Physical activities	Attitudes	0.007	0.000
	Knowledge	0.027	0.000
	Skills	0.020	0.000
	Abilities	0.003	0.000
	External factors	0.028	0.000
Healthy eating habits	Attitudes	0.001	-
	Knowledge	0.001	-
	Skills	0.13	-
	Abilities	0.000	0.015
	External factors	0.005	-

Source: Authors

In the section of healthy dietary habits, for the indicator "abilities" the highest self-evaluation is observed for respondents aged 46 to 55. In this area the influence of external factors is high in the respondent group above the age of 55. The highest score for other indicators is observed for respondents aged 26 to 35.

With regards to the potential qualification of respondents, component – physical activity, the maximal significant differences ($p = 0.000$) were found in the assessments of all indicators. All scores are relatively higher for future sports teachers. In this area the lowest score is for future primary school teachers (indicator - skills), for emerging history teachers (indicator - influence of external factors) and special education teachers (indicators "attitudes", "knowledge", "abilities").

In connection with healthy eating habits, significant differences have been detected for only one indicator - abilities. The self-evaluation of abilities is the highest for future music teachers (Mean Rank 365.83). In contrast, the lowest score for this indicator is characteristic for emerging pre-school teachers (Mean Rank 263.75).

The results of Kendall's tau-b correlation test prove that a correlation can be identified between both healthy lifestyle components ($r=0.419$, $p = 0.000$). Statistically significant correlations are observed also between particular indicators, especially between indicators "knowledge" and "abilities" ($r=0.429$, $p=0.000$) when implementing healthy eating habits.

Summarizing the data obtained identifying the areas of potential support for implementing healthy lifestyle (Question 2), the marginal frequency indicators are differentiated. In relation to the physical activity component, the highest frequency indicators are for a number of internal indicators: motor skills needed for regular physical activity (50.8%), belief in the usefulness of physical activity (79.9%), individual abilities for sports or physical activities (42.2%), and individual skills in sports (40.3%).

In relation to the impact of external factors on the implementation of physical activity, relatively highly respondents assess the need for family support for regular physical activity (61.6%) and the support of the wider social environment for participating in sports activities (55.8%).

The internal factors hindering the physical activity of the respondents are, for example, the lack of skills to regularly evaluate individual physical fitness using health-promoting standards of physical fitness (46.2%). Disadvantages are also observed in terms of acquiring the skills to regularly document one's physical activity and assess its level (78.3%). Respondents also demonstrate lack of knowledge about developing a personal program for optimum health benefits (65.4%). The questionnaires indicate lack of motivation to exercise due to poor weather conditions or lack of time (41.5%).

When assessing the adverse effects of external factors on physical activity, the majority of respondents emphasize the lack of support from motivating professional management or medical staff (50.5%). An analysis of indicators for maintaining healthy dietary habits suggests that contributory inner factors in

this area are skills to prepare a healthy meal (42.2%) and believing in the need for a healthy diet (74.6%). In turn, the external factors contributing to this sphere are the provision of resources for obtaining healthy and delicious food (50.8%), family support for healthy diet (56.0%) and support for a wider social environment in this regard (47.9%).

One of the internal factors hindering the use of healthy diet is the lack of skills to regularly assess individual eating habits in conjunction with the recommendations made by health professionals (72%). The drawbacks are also identified for the ability to document regularly the individual eating habits in order to assess the physical health in relation to the intake of food (76.1%). Similar limitations are observed in the planning of a personal nutrition program, including all the healthy foods necessary for the body (65.2%). The respondents' attitude towards the use of a healthy diet in unusual out-of-routine conditions is also relatively distant (44.0%).

In turn, according to the questionnaire data, the lack of professional management or medical staff support (45.4%) is considered as an external factor for hindering the implementation of healthy dietary habits.

Discussion and conclusions

In scientific research studies a healthy lifestyle is defined as a set of diverse components. The possibilities for its implementation are determined by the individual's competence or internal factors. At the same time a healthy lifestyle depends on external factors – the influence of physical and social environments to each of the micro-systems which actively interact with a particular person.

In the study presented in this article two of the healthy lifestyle components of emerging teachers are analysed: physical activity and healthy dietary habits. This research is based on the scientifically grounded belief that the above mentioned components characterize the basic needs of *homo sapiens* and that they are necessary for human existence. However, future research plans should include a broader study on healthy lifestyle components, focusing not only on the positive but also on the negative habits that are characteristic for young people.

The results of the statistical data analysis confirm that in terms of physical activity and healthy eating habits the average score is higher for respondents' attitude and the influence of external factors. In contrast, the lowest rating is for physical activity and skills of implementing healthy dietary habits. This finding is alarming, particularly because in their potential professional career the future teachers will be able to introduce a healthy lifestyle paradigm only on a theoretical level.

Therefore, it would be desirable to timely tackle the problem by understanding the situation, that a positive attitude or even the motivating external factors do not guarantee practical activity. It can be assumed that in this case the problems are caused by the negative interaction between internal and external factors: (1) lack of internal motivation, (2) constraints of time and financial resources, (3) infrastructure barriers with limited healthy nutrition supplies in public institutions. On the other hand, the solution to the problem could be the introduction of the Ecological approach model both in the study content and in the arrangement of the external environment, ensuring the synergy between the individual's personal activities and the promotion of health policy (Stokols, 1992; Glanz, Rimer, Viswanath, 2008).

The statistical analysis of the obtained data as part of this study confirms the logical differences in the healthy lifestyle competence depending on the age of respondents. For example, in relation to the implementation of physical activity, the respondents of the youngest age group (18 - 25 years) rate their skills higher. The findings give rise to anxiety about the domination of sedentary lifestyle in a student’s daily routine. At the same time, the differences in practicing physical activity and healthy eating habits can be observed depending on the qualification chosen by the students. The lowest self-assessment for implementation of both healthy lifestyle components is observed for emerging history and special education teachers. Like the above mentioned facts about the limitations of physical activity skills and abilities for young students, there is alarming evidence that two potential teachers groups lack physical activity skills. Here it should be added that the professional competence of history teachers in primary education includes also teaching of social sciences – the subject that particularly stresses the regularities of implementation of a healthy lifestyle. In turn, special education teachers, parallel to the implementation of the educational program, must ensure the improvement of the health of children with

special needs. Consequently, it can be concluded that significant deficits can be predicted for the professional activity of future teachers.

In this case the solution to the problem might lie in the methodological improvement of the study program by incorporating healthy lifestyle elements in sports and health education programmes, emphasizing self-efficacy and self-regulation strategies. The Fleig's (2012) study confirms that the use of these methods contributes to the development of health-friendly habits and active involvement in future.

In connection with the healthy lifestyle competence development for future teachers, the references to the lack of support from professional management or medical staff for maintaining physical activity and healthy eating habits cannot be ignored. A study on the situation in higher education institutions of Latvia shows the shortage of health care services in these institutions (Koroleva et al., 2013). At the same time, research results confirm that students, regardless of their life and work experience, transform their perceptions of pedagogical relationships from pupils to the social role of the student. Consequently, the students believe that the academic staff must ensure their competence. On the other hand, self-activity in acquiring knowledge, skills and competence is often not considered as the learning outcome and its quality assurance tool (Blūma, 2012; Bethere et.al, 2014). Therefore, to improve the situation it is important to perfect the higher education environment and its activity strategy.

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