

**Károly Eszterházy Catholic University Doctoral School of
Education**

Sports pedagogy sub-programme



Head of doctoral school: Prof. Dr. Zoltán Szűts, PhD, professor

Doctoral school programme director: Dr. Enikő Szőke-Milinte, PhD, associate professor

Anita Molnár

**HEALTH BEHAVIOUR, VALUE TRANSMISSION AND
TARGET SETTING: OPPORTUNITIES FOR IMPROVING
THE CONTENT AND METHODOLOGY OF PHYSICAL
EDUCATION**

Doctoral Thesis (PhD)

Thesis leaders:

Prof. Dr. József Bognár, professor

Dr. Ildikó Vajda, college professor

Eger

2025

Content

1.	Introduction.....	3
1.1.	The aim of the research	4
1.2.	Research hypotheses.....	4
2.	Material and method.....	5
2.1.	Sampling	5
2.2.	Data Collection.....	8
2.3.	Data analysis	9
3.	Results	9
4.	Discussion	14
5.	References.....	17
6.	List of own publications	19

1. Introduction

With the introduction of everyday physical education, the physical education subject has undergone major changes, which are reflected in the subject's goals, content and impact system, as well as in the requirements set for physical education teachers (Csányi, 2019). The National Core Curriculum (2020) regulating the physical education subject defines the basic principles, goals, objectives, values, content and approach in the Physical Education and Health Promotion, which influences on the work and practice of physical education teachers and pre-service physical education teachers.

Physical education is the only subject that develops the psychomotor, cognitive and affective learning areas in a complex way, with health at its core (Csányi and Révész, 2021). Physical education teachers and future physical education teachers can become role models and can largely determine the values, goal system, lifestyle and health behaviour of generations of PE teachers (Pinczés and Pikó, 2017). The effectiveness of the physical education subject lies in the fact that it shapes behaviour, attitudes and various personality traits through spot activities in the teaching-learning process using different tools and methods. To achieve this, it is important to keep in mind the goals and content of education, taking into account the individual abilities and talents of the learners and the learning environment (Falus and Szűcs, 2022).

The research demonstrates the importance of the physical education subject and physical education teacher education operating on uniform guidelines. In Hungary, the study and development of national regulations for physical education teacher education and the physical education subject have not been carried out yet (Bognár, 2020). The National Core Curriculum and framework curricula define numerous goals, but at the same time, the difference between regulatory documents and pedagogical practice is a widespread problem. This conceptual, value system, approach and methodological difference can greatly affect the quality and effectiveness of education.

It is important to note that the pedagogical beliefs of PE teachers and the objectives of the PE curriculum, which are passed on as a socially coded pattern, are central factors in the modification of curricular regulations and have determined the process of education and teaching for several generations. However, observing the development of the National Curricula, it can be stated that due to the rigid curriculum regulations and over-centralized educational management does not allow flexibility and learner-centredness on the part of teachers (Chrappán, 2022).

Several national studies have summarized the general and specific characteristics of curriculum regulations (Bognár 2019; Hamar, 2012; Moravecz, 2022; Molnár et al., 2023). In the National Core Curriculum (2020), the main goals of the subject, such as physical activity and fitness, are not sufficiently emphasised (Bognár, 2020), despite the fact that the methodology of the physical education subject aims at promoting the love of movement and sport (Tóth et al., 2019). In addition, physical education teachers and pre-service physical education teachers consider physical activity, multifaceted movement development and the shaping of students' health behaviour as an important goal (Lappints and H. Ekler, 2022; Molnár, 2021; Molnár, Vajda, and Bognár, 2024; Neil-Sztramko et al., 2021).

Physical education teachers and pre-service physical education teachers can be characterized by different health behaviour habits (Ferry and Romar, 2020; Molnár, Bognár and Vajda, 2021; Simkó and Uvacsek, 2021; Vajda et al., 2018). Physical education teachers and pre-service physical education teachers are mostly health-conscious, but health-damaging behavioral habits are more common among students. However, it is not easy to determine which of the physical education teacher abilities and skills should play a greater role in modeling and developing positive health behavior, and which methods are more effective in achieving these (Révész, 2019).

1.1. The aim of the research

The primary goal is to present the correlations between the health behaviour, values and goal system of pre-service physical education teachers, instructors participating in physical education teacher education, and practicing school principals in the light of the goals and values of the physical education subject. In addition, a further goal is to present the health attitudes, value and goal system of physical education teachers participating in practice and to explore the students' opinions on the current perception of the physical education subject, the knowledge, values and approach conveyed by physical education teachers.

1.2. Research hypotheses

H₁: According to students, teachers, instructors, physical education teachers and pupils, the primary goal of physical education is to promote a love of exercise and sports and to develop good health habits.

H₂: The priority of subject goals indicated by students, teachers, instructors, physical education teachers and students differ in terms of gender, progress of training and teaching activities, and also does not show uniformity with the goals emphasized by the National Core Curriculum.

H₃: The studied groups can be characterized by different health behavior habits.

H₄: Students, trainers, supervisors and physical education teachers do not place sufficient emphasis on the optimal transmission of positive health behaviours in the class.

H₅: The groups use different methods and tools to communicate the values of good health behaviour.

H₆: The pilot program for the content transformation of practice-oriented and value-based teacher training also results in significant development in the goal and value system of physical education teacher education, thereby better aligning it with the regulatory documents and practice of the physical education subject.

2. Material and method

2.1. Sampling

The research involved 4 steps in the sampling process, which was preceded by a preliminary investigation, pre-test. During the pre-test, unstructured individual interviews were conducted, followed by a comparative document analysis of the National Core Curriculums in the first step. In the second and third steps, data were collected using the written questionnaire method, and in the fourth step, structured individual interviews and in-depth interviews were conducted using the oral interview method.

Sampling during the preliminary examination

Expert sampling was used in the pre-study. The survey was conducted with physical education teachers from Nyíregyháza (N=18) and pre-service physical education teachers from the University of Nyíregyháza (N=12).

Sampling procedure in the second step following document analysis

The main target groups in our study were students participating in physical education teacher education (N=227), university teachers (N=42) and head teachers (N=18) of physical education in university training schools. In this phase of the research, we used a purposive sampling procedure. The study was conducted in Hungarian physical education teacher education institutions and training schools.

Characteristics of the student sample participating in the quantitative study

Of the surveyed pre-service physical education teachers (N=227), 57.7% were male, 42.3% female, and their average age was 24.5 ± 5.036 years. According to the progress of their training, 33.5% had not completed a professional methodology course yet, 26.4% had completed a professional methodology course, 22.0% were doing their teaching practice at the practising school, and 18.1% were completing their continuous teaching practice.

Characteristics of the teacher sample participating in the quantitative survey

Of the instructors participating in physical education teacher education (N=42), 47.6% are male, 52.4% are female, and their average age is 47.17 ± 10.622 years. During their education, 54.8% teach theoretical foundation subjects, 59.5% teach sports practice and educational methodology subjects, and 42.9% teach vocational methodology/physical education teaching/physical education theory and methodology subjects. The average teaching time in higher education is 10.45 ± 10.112 years.

Characteristics of the sample of managers participating in the quantitative data collection

Of the subject leaders (N=18), 55.6% were male, 44.4% female, and their average age was 52.61 ± 9.160 years. 33.3% of the respondents taught in lower grades, 61.1% in upper grades, 27.8% in 4-year high schools, and 22% in 6-8-year high schools. Their teaching experience in public education was 26.11 ± 11.066 years, and their experience as a teacher is 15.22 ± 11.133 years.

Sampling procedure and sample characterization in the third step

Purposive sampling was used to select counties, school levels, and then, within these, primary and secondary schools participating in the research by simple random selection. The selection covered 71% of the institutions that met the criteria, during which 631 physical education teachers were interviewed (N=631).

Purposive sampling was used among the students (N=211). The study site was the Eszterházy Károly Catholic University Practical School and the Eötvös József Practical Elementary School and Gymnasium of the University of Nyíregyháza. The sample selection criterion was that the students were studying full-time at the practical school of the higher education institutions and were enrolled in gymnasium education in grades 9-12.

Characteristics of the sample of physical education teachers participating in the quantitative study

52.1% of the physical education teachers (N=631) are male, 47.9% female, their average age is 43.97 ± 11.967 years. Their teaching experience in public education is 17.56 ± 12.791 years. In addition to teaching, 56.7% of the sample conducts training for competitive sports, 68.6% for recreational sports. Their coaching experience is 15.20 ± 11.247 years.

Characteristics of the student sample participating in the quantitative survey

Of the practicing school students (N=211), 49.8% are boys, 50.2% are girls, their average age is 15.78 ± 1.191 years. 38.9% of the students are in 4-year high school, 61.1% in 6-8-year high school. According to the grades, 33.6% of the respondents are in 9th grade, 26.5% in 10th grade, 21.8% in 11th grade, and 18% in 12th grade.

Sampling procedure in the fourth step

In the fourth step of the research, expert sampling was used. The research was conducted with pre-service physical education teachers (N=6), university lecturers (N=2) and supervisors (N=2) of the University of Nyíregyháza and the Eszterházy Károly Catholic University.

In the fourth step, we conducted in-depth interviews with the members of the committee developing the pilot program for physical education teacher education, thus using expert sampling to select the interviewees. The interview involved members of the working group of Eszterházy Károly Catholic University and the University of Nyíregyháza (N=4), who teach vocational methodology and are participants in public education as physical education teachers.

Characteristics of the sample participating in the qualitative data collection Characteristics of the qualitative data sample

Among those completing continuous teaching practice, students completing teaching practice in a practice school and those completing the subject of professional methodology, we conducted the interview with 1 female and 1 male student in each group. Their average age was 23.83 ± 1.602 years. Among those teaching the subject of professional methodology in physical education teacher education, 1 female teacher and 1 male teacher participated in the qualitative study. Their average age was 56.5 ± 0.707 years. In the group of practicing school teachers, 1 female and 1 male physical educator participated in the interview. Their average age was 55 ± 4.242 years.

During the in-depth interview, 2 members of the committee developed the pilot programme for physical education teacher education taught specialized methodology subjects, and 2 members also worked as physical education teachers in public education in addition to their university teaching jobs. Based on gender composition, 2 women and 2 men participated and their average age was 53 ± 4.242 years.

2.2. Data Collection

Characteristics and tools of data collection during the pre-study

During the oral interviews, open-ended questions were used according to the respondents' freedom of movement. The results were grouped into 4 areas of questions; Health behaviour issues; physical education teachers' role models; teaching methods in general and specifically.

Data collection for document analysis

The changes in the National Core Curricula (1995, 2003, 2007, 2012, 2020) were presented in terms of general goals, then those related to the literacy area/learning area, as well as those related to health behavior and health education, values, value transmission, requirements and content.

The questionnaire used in the second and third steps

The main part of the questionnaire consisted of 3 questions:

1. Within the scope of health behaviour, we used questions adapted from the ELEF – European Population Health Survey (2019) questionnaire, supplemented according to the purpose of the study (number of questions: 5).
2. In the area of value mediation, questions related to the attitude of physical education teachers, the mediation of health behaviour, the tools and methods used in value mediation, the methods necessary for developing a habit system, and the methods used to mediate a behavioral-activity model appeared (number of questions: 55) (Bábosik, 2004; Falus and Szűcs, 2022).
3. In the area of questions related to the goal system of physical education, we compiled a self-edited questionnaire based on the goal system of the National Core Curriculum (2020) (number of questions: 24).

Data collection related to the interview used in the fourth step

The results of the structured interview were grouped into 4 areas: Health behaviour issues; values and value communication; goal system related to teaching physical education; beliefs, experiences, and goals related to teaching and physical education teacher education.

The results of the in-depth interview were grouped around 3 questions: The history and reasons for the pilot program for the renewal of physical education teacher education; the process of its development, the characteristics of its changes; the significance of its expected results, further suggestions and experiences about the physical education teacher education system.

2.3. Data analysis

The quantitative data were processed using the IBM SPSS 23.0 statistical program, and the error limit was set at 0.05 during the statistical procedures. During the data processing, descriptive statistics (mean, standard deviation, frequency indices) were performed on the whole sample according to the priority of value mediation and subject objectives. In addition, the Mann-Whitney U and Kruskal-Wallis tests were applied according to groups, gender, progress of training, and experience of instructor and teacher, since the Kolmogorov-Smirnov test for the objectives of physical education, health behaviour and value transmission were not normally distributed ($p=0.000$). The internal consistency value of the data showed a good value ($\alpha>0.748$). Document analysis was used for the qualitative study and thematic analysis for the structured and in-depth interviews.

3. Results

Analysis of National Core Curriculums

A significant change can be observed in the target system of the literacy area related to physical education in 2003 and 2012. In 1995, the subject's goals included regular physical activity and the development of related abilities and skills. The NAT 2003 target system is decisive in educating successful, active, and positively thinking citizens during the educational process, in which the psychomotor, cognitive, and affective learning areas are of paramount importance. The NAT 2012 target system is supplemented with sports techniques and tactics, the selection of talents, and participation in recreational, student, and competitive sports. In addition, the role of play during physical activity is significant, and experience-centeredness and learner-centeredness are advances in terms of arousing and maintaining motivation. In 2020, the name of the Physical Education and Sports literacy area was changed to the Physical

Education and Health Development literacy area, in which an increase in the importance of health behavior and a healthy lifestyle can be observed.

In terms of values, there were mostly no changes in the general objectives of the curriculum from 1995 to 2012, despite the fact that a separate sub-chapter was given to the values to be developed. For the National Core Curriculum 2020, in the Physical Education and Health Development literacy area, play, experience-centeredness, cooperation and health development are more emphasized, the significance of which was first discovered in the curriculum in 2012. An important step forward in the case of NAT 2020 is the emphasis on elements related to health and health behavior.

Results from the questionnaire survey

Based on our results, it can be stated that the most important goal of teaching physical education is “Instilling a love of movement and sports” ($M=3.77 \pm 0.56$). The lowest average values were obtained for “Achieving specific performance in sports and physical activities” ($M=2.68 \pm 0.85$). Comparing the opinions of the groups, a significant difference can be observed between the goals of the psychomotor, cognitive and affective learning areas, with one exception ($p=0.000-0.040$). Regarding the goals of the psychomotor learning area, the instructors consider the following goals to be significantly more important: “Development of general physical literacy” ($p=0.000$), “Development of positive health behavior habits” ($p=0.000$), “Development of coordination skills” ($p=0.000$), “Building a lifelong physically active lifestyle” ($p=0.000$), “Development of conditioning and fitness” ($p=0.000$), “Learning the technique of sports and movement materials” ($p=0.040$) and “Achieving specific performance in sports and movement materials” ($p=0.003$). The subject supervisors consider the “Development of general physical literacy” to be of particular importance among these goals, while the students consider the “Learning the technique of sports and movement materials” to be of particular importance. When observing the following goals, the lowest average values can be observed in the case of students. The students rated the goal “Achieving specific performance in sports and physical activities” as of paramount importance compared to the other groups. In the cognitive learning area, the goal “Learning about the beneficial effects of regular physical activity” ($p= 0.000$) was rated with the highest average value by the instructors, “Developing a preventive approach” ($p= 0.000$) and “Planning one’s own physical training in order to independently improve one’s fitness level” ($p= 0.026$) by the subject leaders, and the lowest by the practicing school students. The goal “Developing an entrepreneurial approach” ($p= 0.035$) was rated the most important by the students, and the subject leaders rated the

following goal the lowest. In the affective learning area of the physical education subject, the goals of “Instilling a love for movement and sports” (p= 0.000), “Developing the whole personality” (p= 0.000) were set by the teachers, “Relaxation, students should feel good” (p= 0.000), “Developing self-knowledge and self-esteem” (p= 0.000), “Developing a healthy competitive spirit” (p= 0.000) and “Commitment to a sustainable present and future” (p= 0.000) were set by the pre-service physical education teachers, “Community building” (p= 0.000), “Developing mental abilities (stress, conflict management etc.)” (p= 0.000), “Strengthening emotional and volitional qualities” (p= 0.000) is rated more important by physical education teachers. For each affective goal, students rated the different goals the lowest, except for “Commitment to a sustainable present and future”, which received the lowest priority among subject leaders.

The groups' goal definitions yielded several statistically significant differences by gender. It can be stated that in the psychomotor learning area there are three goals – “Development of conditioning, fitness” (Z=-3.458; p=0.001), “Development of coordination skills” (Z=-4.137, p=0.000), “Learning the technique of sports and physical activities” (Z=-3.124, p=0.002) – in the cognitive learning area there are two goals – “Development of a preventive approach” (Z=-2.444; p=0.015), “Development of knowledge related to sports and physical activities” (Z=2.198; p=0.025) – and in the affective learning area there are three goals – “Community building” (Z=-3.060; p=0.002), “Development of mental skills (stress, conflict management etc.)” (Z=-3.920; p= 0.000), "Strengthening emotional and volitional qualities" (Z=-3.362; p= 0.001) a significant difference can be observed, which goals were rated higher by women.

Goals “Development of coordination skills” (p=0.018), “ Learning the technique of sports and movement materials” (p=0.011), “Learning the tactics of sports and movement materials” (p=0.018), “Development of mental skills (stress, conflict management etc.)” (p=0.029) and “Commitment to a sustainable present and future” (p=0.016), their values are highest in students who have completed the subject of professional methodology but have not completed their teaching practice. There is no difference in the opinions of students who have completed their continuous teaching practice and students who have completed the earlier stage of the training regarding the goals of the subject of physical education.

Based on the results of the teaching and educational activities of physical education teachers, university lecturers, practicing school leaders and physical education teachers (N=918), we compared the goal system related to the teaching of the subject of physical education by teaching experience and coaching experience. Based on the teaching and

educational activity, a significant difference can be observed only in the case of one goal between those who have no teaching experience and those who have teaching experience. Based on the results, physical education teachers who conduct training for competitive sports ($M=3.55 \pm 0.56$) consider the goal "Developing a healthy competitive spirit" ($Z=-2.579$; $p=0.010$) significantly more important than those who do not conduct training for competitive sports. No significant difference was found between the other goals. For the goals of "Establishing a lifelong physically active lifestyle" ($Z=-2.903$; $p=0.004$) and "Developing a preventive approach" ($Z=-2.733$; $p=0.006$), those who conduct recreational sports training received significantly higher scores than those who do not conduct such training.

Compared to the examined groups, university lecturers significantly improved their health behavior habits ($p=0.006$; $M=3.33 \pm 0.53$) and health awareness ($p=0.007$; $M=3.40 \pm 0.59$). In contrast, the head physical education teachers teaching in the practical school rated their health behavior habits ($M=2.94 \pm 0.64$) and health awareness ($M=3.11 \pm 0.68$) with the lowest average values.

Regarding the attitude of a physical education teacher, preparedness ($M=3.94 \pm 0.24$), consistency ($M=4.00 \pm 0.00$), honesty ($M=3.89 \pm 0.32$) and credibility ($M=4.000 \pm 0.00$) are considered by practicing school leaders, empathy/helpfulness by pre-service physical education teachers ($M=3.85 \pm 0.37$), child-centeredness ($M=3.83 \pm 0.40$), determination ($M=3.83 \pm 0.39$) and diligence/perseverance ($M=3.74 \pm 0.45$) are considered by physical education teachers to be the most important qualities for a physical education teacher to be an example ($p=0.000-0.001$). The lowest mean values for each characteristic can be observed among students.

Based on the results regarding the role and task of physical education teachers in developing good health behavior, it can be stated that there is a significant difference in the opinions of the groups for each role and task ($p=0.000$). Personal example-setting ($M=3.83 \pm 0.38$), motivation ($M=3.79 \pm 0.42$), instilling a love of exercise and sport ($M=3.95 \pm 0.22$), developing a health-conscious habit system/lifestyle ($M=3.76 \pm 0.43$), versatile movement development ($M=3.81 \pm 0.40$), developing correct posture ($M=3.83 \pm 0.44$), developing hygiene habits ($M=3.64 \pm 0.53$) and developing a preventive approach were rated with the highest average by the instructors in the PE teacher training, while the development of fluid consumption and nutrition habits ($M=3.51 \pm 0.56$) and avoiding harmful health behaviors were rated with the highest average by the PE teachers.

The most frequently used methods are explanation ($M=5.17 \pm 1.29$), presentation ($M=5.06 \pm 1.30$), which are used on average weekly, and playful task solving, experience-based

learning ($M=4.62 \pm 1.48$), which are used monthly by the respondents. The least frequently used methods are learning contracts ($M=2.16 \pm 1.64$), homework ($M=2.26 \pm 1.61$) and project work ($M=2.37 \pm 1.54$) in physical education classes. Based on the results of the frequency of educational methods used to convey behavioral-activity models, a significant difference can be observed ($p=0.000-0.002$). Personal example-giving ($M=4.88 \pm 1.27$) is used almost weekly, highlighting positive individual models from community life ($M=4.60 \pm 1.33$) and personal participation in community activities ($M=4.57 \pm 1.34$) are used several times a month in the school environment, on the other hand, works of art ($M=2.33 \pm 1.42$) are used a few times a year, and personal presentation of a model value is used several times a semester to convey behavioral and activity models.

Results related to the interviews

Our results show that the majority of students exercise regularly and eat healthily, but half of the students have harmful health behaviors. All three groups consider personal example-setting to be essential in conveying good health behaviors.

According to the respondents, the most important value in teaching physical education is the development of a lifelong physically active lifestyle, the love of exercise and sports, and the development of good health habits. The tools and methods used for value communication show a diverse picture among the groups studied. Among the health behavior factors, the greatest emphasis is placed on physical exercise and physical activity, which must stem from internal motivation.

Knowledge of the National Core Curriculum is crucial when teaching physical education. Students and subject leaders consider the most important goal of teaching physical education to be instilling a love of exercise and sport, while teachers of the methodology course consider it to be instilling a healthy lifestyle. Students consider a lifelong physically active lifestyle to be just as important as instilling a love of exercise and sport. The achievement of goals is influenced by several factors in the educational process.

Based on the results of the in-depth interview, the main goal of the practice-oriented and value-centered pilot program is to transform the teacher training system and develop a practice-oriented training structure. The main reason is that the content elements of the training and the training and outcome requirements do not coincide with real teaching and needs. In terms of goals, values, and content, several changes have occurred compared to the training and outcome requirements and the model curriculum of the previous physical education teacher education. An important part was the unification of the competencies to be acquired during teacher training

with the teacher competencies related to the qualification exam. In terms of goals, values, and content, the KKK has become unified based on the NAT and the framework curriculum. In addition, one of the important elements of the program is to include teachers teaching in public education in physical education teacher education. Overall, it can be said that the interviewees expect positive changes and developments with the introduction of the pilot program, as the structure of the training has become much closer to practice. They feel that previous shortcomings have been eliminated, but they believe that there are still areas of deficiency.

4. Discussion

Research examining teacher training and public education attempts to shed light on the fundamental problem system from different perspectives, however, domestic research has not yet proven the unity of the complex tasks of the two separate yet highly interdependent training and practice areas.

Based on the results, it can be concluded that an important step forward is the emphasis on elements related to health and health behavior in the case of NAT 2020, but further development is needed, in which the competence areas and development areas related to the general objectives of the curriculum are more closely linked to subject values.

The respondents consider the main goal of the physical education subject to be to instill a love of movement and sport, while achieving specific performance is less decisive. In the case of gender differences, significant differences can be observed in several goals based on the opinions of pre-service physical education teachers and physical education teachers. Based on the results related to the progress of the training, those who have already completed the subject of professional methodology consider the development of coordination skills, learning the technique and tactics of sports and movement materials, the development of psychological skills and commitment to a sustainable present and future to be more important than those who complete the early or late stages of the training. There is no difference in the opinions of those who complete continuous teaching practice and students who completed the earlier stages of the training regarding the goals of the physical education subject. According to the experience of educators, those who have teaching experience consider the strengthening of emotional and volitional qualities to be a more important goal. There is no significant difference between the additional goals. It can also be stated that the groups consider their health and fitness status, quality of life, health behavior habits and health awareness to be good. There was a significant

difference between the opinions of the groups in the frequency of methods and tools that shape the lifestyle and health behavior of the students.

The importance of practice-oriented physical education teacher education lies in the fact that it specifically helps to coordinate the theoretical and practical parts of the training. Conclusions about the effectiveness of the new training program can be drawn based on the later measurement results, but my research allows us to gain insight for the first time into the work of the working group that developed the pilot program, into the exploration of the antecedents of the pilot program, into the characteristics of the pilot program and into the significance of the expected results. The pilot program can be an effective step towards solving the shortcomings.

Proving hypotheses

H₁: Based on the assessment of the groups examined, the most important goal related to the teaching of physical education is to promote a love of movement and sports, followed by the development of general physical literacy and the formation of positive health behavior habits. My first hypothesis was confirmed based on the results.

H₂: Comparing the opinions of the groups examined, a significant difference can be observed between the goals of the psychomotor, cognitive and affective learning areas in most cases based on the goals emphasized by the National Core Curriculum. The results showed several statistically significant differences between the goal definitions by gender. According to the progress of the training, a significant difference can be observed only in the case of a few goals. In the case of the other goals, there is no difference between the opinions of the students according to the progress of the training. Based on the teaching-educational experience, only the goal of strengthening emotional and volitional qualities was considered more important by those who have teaching experience. The subject priorities of the groups examined are mostly different, and in the case of some goals, uniformity with the goals emphasized by the National Core Curriculum can be observed, thus this part of the hypothesis was confirmed. The hypothesis was partially confirmed with regard to gender. According to the progress of the training and the teaching-educational experience, the hypothesis was not confirmed.

H₃: Pre-service physical education teachers, university lecturers, practicing school leaders, physical education teachers and practicing school students judge their health behavior habits and health awareness differently. This hypothesis was confirmed based on the results of the questionnaire and the structured interview.

H4: In the development of a lifelong physically active lifestyle, the values considered important are to instill a love of movement and sport, to arouse the need for movement, to preserve health and to develop good health behavior. University lecturers and physical education teachers consider their role in developing health behavior to be more significant. The respondents mostly place the emphasis on physical activities. This hypothesis was not confirmed.

H5: A significant difference can be observed between the opinions of the groups in the frequency of methods and tools that shape students' lifestyles and health behaviors, both through the questionnaire and the interview. The hypothesis was confirmed, as in most cases a significant difference can be observed between the methods and tools indicated by the groups.

H6: During the preparation of the program, the training and outcome requirements, the sample curriculum, and the subject topics of physical education teacher education were revised by the National Core Curriculum 2020 and the framework curriculum. A significant change is the correspondence of the competences of teacher training with the pedagogical competences and the KKK is the unity of the NAT and the framework curriculum based on goals, values, and content. The greatest development is the optimization of the proportions of practical and theoretical subjects and the practice introduced in the early stages of training, in addition, they want to employ as many physical education teachers as possible in physical education teacher education. The hypothesis was therefore confirmed.

Suggestions

In the case of the National Core Curriculum and the training and outcome requirements that define physical education teacher education, further development is needed, which formulates an unified approach, goals, and values. In order for the educational process to function effectively, it is worth monitoring the extent to which physical education teachers and pre-service physical education teachers apply the content of the National Core Curriculum and framework curriculum that define public education. Continuous methodological development is essential from the point of view of training and practice.

In physical education teacher education, the admission requirements system should be developed on uniform principles, along the goals, values, expectations and approach of teacher training. Teachers leading school practice and university lecturers can develop and operate physical education teacher education in close cooperation. In sports education methodology classes, the emphasis should be placed on the process and methodology of education, and the main goal should not be to achieve a specific performance level. It is necessary to rethink the pedagogical-psychological subjects related to professional foundation subjects, closely linked

to the pedagogical-psychological situations that occur in the teaching career. In addition, the practice-oriented physical education teacher education pilot program should be introduced in all physical education teacher education institutions in Hungary.

A further area of research is suggested to examine, measure and compare the effectiveness of the teacher competences and teacher career model for physical education teachers with the system of physical education teacher education and public education. At the same time, it may provide a new alternative and important information for the consistency of training and practice regarding which goals and values physical education teachers and pre-service physical education teachers prefer during a decision-making process.

5. References

Bognár, J. (2019). A testnevelés értékorientációja. *Új Pedagógiai Szemle*, 69(3-4), 100-108.
https://epa.oszk.hu/00000/00035/00192/pdf/EPA00035_upsz_2019_03-04_100-108.pdf (Utolsó letöltés: 2024.01.10)

Bognár J. (2020). A testnevelőtanár-képzésre vonatkozó dokumentumok egységessége az elvek, tartalmak és értékek mentén: a képzési kimeneti követelmények, a pedagóguskompetenciák, a pedagógus életpálya-modell és a NAT 2020 összevetése. EKE Líceum Kiadó, Eger.

Chrappán, M. (2022). A NAT evolúciója 2010-2021 között. *Educatio*, 33(1), 30-47.
<https://doi.org/10.1556/2063.31.2022.1.3>

Csányi, T. (2019). Szemelvényes az utóbbi tíz év iskolai testnevelés-oktatását szabályozó európai tantervi irányzatokból – Következtetések a minden napos testnevelés tartalmi fejlesztése érdekében. *Új Pedagógiai Szemle*, 69(3-4), 16-36.

Csányi, T., & Révész, L. (2021). *A testnevelés és sport oktatásának elmélete és módszertana – Középpontban a tanulás*. Magyar Diáksport Szövetség, Budapest.

Falus, I. & Szűcs, I. (2022). *Didaktika – Elméleti alapok a tanítás tanulásához*. Akadémia Kiadó Zrt., Budapest.

Ferry, M. & Romar, J-E. (2020). Phisycal education preservice teachers' phisical activity habits and perceptions of the profession and subjeckt: development during teacher education. *Journal of Physical Education and Sport*, 20(422), 3108-3119.
<https://doi.org/10.7752/jpes.2020.s6422>

Hamar, P. (2012). „MindénNATos” testnevelés. *Új Pedagógiai Szemle*, 62(11-12), 87-97.

Lappints, R. & H. Ekler, J. (2022). Különböző tanítási stílusok pszichomotoros hatásai. *Magyar Sporttudományi Szemle*, 93, 19-25.

Molnár, A. (2021). Testnevelő tanári példamutatás és az egészségmagatartás közvetítése a bemutatás módszerén keresztül. In.: Medovarszki, I. (szerk.): *Tantárgy-pedagógiai kaleidoszkóp: 2021 – Pedagógiai, neveléstudományi és szakmódszertani tanulmányok*. 129-146. Békéscsaba.

Molnár, A., Vajda, I., Bognár, J. (2024). A célok szerepe az iskolai testnevelésben: fókuszban a testnevelő tanár szakos hallgatók. *Pedagógusképzés*, 22(50), 5-20.

Molnár, A., Bognár, J. & Vajda, I. (2021). *Pedagógusok szerepe az egészségnivelés folyamatában, különös tekintettel a pedagógusok egészség-magatartására*. Acta Universitatis De Carolo Eszterházy Nominatae: Sectio Sport 51, 53-67.

Molnár, A., Beregi, E., Kós, K. & Suszter, L. (2023). A hazai iskolai egészségfejlesztés és egészségnivelés fogalmának és szabályozó rendszereinek áttekintése az elmúlt évtized viszonylatában. *Magyar Pedagógia*, 123(1), 19-32.

Moravecz, M. (2022). *Diákok sportja – hallgatók egészségtőkéje?: a minden napos testnevelés jéghely-modellje a hallgatói egészségtudatosság és eredményesség tükrében*. Belvedere Meridionale, Szeged.

Neil-Sztramko, S., E., Caldwell, H. & Dobbins, M. (2021). *School-based physical activity programs for promoting physical activity and fitness in children and adolescents aged 6 to 18*. Cochrane Database of Systematic Reviews, 9. <https://doi.org/10.1002/14651858.CD007651.pub3>

Pinczés T. & Pikó B. (2017): Társas háló és a társas támogatás szerepe leendő pedagógusok sportolási szokásaiban. *Testnevelés, sport, tudomány*, 2(1-2).

Révész, L. (2019). A Komplex Alaprogram Testmozgásalapú alprogramjának kapcsolata a minden napos testnevelés megvalósítási lehetőségeivel. *Új Pedagógiai Szemle*, 69(3-4), 109-117.

Simkó G. & Uvacsek M. (2021). Fizikai aktivitás és táplálkozás vizsgálata női egyetemi hallgatók körében szorgalmi és vizsgaidőszakban. *Magyar Sporttudományi Szemle* 22(89), 44-49.

Tóth, L., Zala, B., Benczenleitner, O. & Reinhardt, M. (2019). Testnevelő mentortanárok minden napos testneveléssel kapcsolatos attitűdjének vizsgálata személyiségeik, énhatékonyságuk és intézményük szervezeti kultúrája tükrében. *Új Pedagógiai Szemle*, 69(3-4), 70-86.

Vajda, I., Major, Zs., Moravecz, M., Pásztorné, B., K., Vajda, T., Vajda, F., V., Oláh, D. & Nagy, A. (2018). Study on physical activity and health behaviour among students at the University of Nyíregyháza. *Magyar Sporttudományi Szemle*, 19(74), 22-26.

Jogszabályok:

NAT 1995. A Nemzeti alaptanterv kiadásáról. 130/1995. (X. 26.) Korm. rendelet. <https://njt.hu/jogszabaly/1995-130-20-22> Utolsó letöltés: 2024.09.16.

NAT 2003. A Nemzeti alaptanterv kiadásáról, bevezetéséről és alkalmazásáról. 243/2003 (XII. 17.) Korm. rendelet. http://www.nefmi.gov.hu/letolt/kozokt/nat_070926.pdf Utolsó letöltés: 2024. 09.16.

NAT 2007. A Nemzeti alaptanterv kiadásáról, bevezetéséről és alkalmazásáról. 243/2003 (XII. 17.) Korm rendelet módosítása, módosító jogszabály: 202/2007 (VII. 31) Korm. rendelet. <https://njt.hu/jogszabaly/2003-243-20-22> Utolsó letöltés: 2024.09.16.

NAT 2012. A Nemzeti alaptanterv kiadásáról, bevezetéséről és alkalmazásáról. 10635. 110/2012 (VI. 4.) Korm. rendelet. *Magyar Közlöny*, 2012. 66. Emberi Erőforrások Minisztériuma, Oktatásért Felelős Államtitkárság, Budapest. <https://www.kozlonyok.hu/nkonline/MKPDF/hiteles/MK14004.pdf> Utolsó letöltés: 2024. 09.16.

NAT 2020. A Nemzeti alaptanterv kiadásáról és alkalmazásáról szóló 110/2012 (VI.4) Korm. rendelet módosítása, Módosító jogszabály: 5/2020. (I. 31.) Korm. rendelet. *Magyar Közlöny*. Igazságügyi Minisztérium, Budapest. <https://magyarkozlony.hu/dokumentumok/3288b6548a740b9c8daf918a399a0bed1985db0f/megtekintes> Utolsó letöltés: 2024. 09.16.

6. List of own publications

Study, book excerpt, book chapter

Tóth Sára, **Molnár Anita**, Vajda Ildikó (2024). A testnevelő tanárok és az iskola szerepe az egészséges táplálkozásban. In: Kovács, Zoltán (szerk.): A Nyíregyházi Egyetem hallgatóinak pályamunkái: 36. Országos Tudományos Diákköri Konferencia, 223-237., 15 p.

Molnár Anita (2023). Különbségek a testnevelő tanárok és a testnevelőtanár-jelöltek értékorientációjában. Az Eszterházy Károly Katolikus Egyetem tudományos

közleményei (54. köt., 2023/1). *Tanulmányok a sporttudomány köréből = Acta Universitatis de Carolo Eszterházy Nominatae. Sectio Sport.* 54 pp., 47-57., 11 p.

Molnár Anita, Bognár József, Vajda Ildikó (2021). Pedagógusok szerepe az egészségszervezés folyamatában, különös tekintettel a pedagógusok egészség-magatartására. *Acta Universitatis De Carolo Eszterházy Nominatae: Sectio Sport*, 51: 2021 pp. 53-67., 15 p.

Molnár Anita (2021). Testnevelő tanári példamutatás és az egészségmagatartás közvetítése a bemutatás módszerén keresztül. In: Medovarszki, István (szerk.): *Tantárgy-pedagógiai kaleidoszkóp: 2021 – Pedagógiai, neveléstudományi és szakmódszertani tanulmányok.* 242 p pp. 129-146., 18 p., Magánkiadás, Békéscsaba.

Molnár Anita, Borbény Szilvia, Oláh Dávid, Vajda Ildikó (2021). Testkultúra és egészségmagatartás vizsgálata a Nyíregyházi Egyetem dolgozói körében = Research of Body Culture and Health Behaviour among the workers of University of Nyíregyháza. In.: Kovács, Zoltán (szerk.): *Kutatások és látásmódok a Nyíregyházi Egyetemen*, 260 p. pp. 154-167., 14 p., Nyíregyházi Egyetem, Nyíregyháza.

Peer-reviewed papers published in national and international scientific journals

Molnár Anita (2025). A testnevelés tantárgy szabályozása a Nemzeti Alaptantervekben: Célok, értékek, tartalom és követelmények. *Iskolakultúra*, 35: 4 pp. 51-67., 17 p.

Molnár Anita, Vajda Ildikó, Bognár József (2024). A célok szerepe az iskolai testnevelésben: fókuszban a testnevelő tanár szakos hallgatók. *Pedagógusképzés* 22 (50): 2 pp. 5-20., 16 p.

Kós Katalin, Beregi Erika, **Molnár Anita**, Suszter László (2023). Az egészségszervezés mérésének, mérhetőségének kérdései – Komplex mérőeszköz összeállítása első osztályos gyermek és nevelőik számára. *Új Pedagógiai Szemle*, 73: 8-8 pp. 76-86., 11 p.

Molnár Anita, Beregi Erika, Kós Katalin, Suszter László (2023). A hazai iskolai egészségfejlesztés és egészségszervezés fogalmának és szabályozó rendszereinek áttekintése az elmúlt évtized viszonylatában. *Magyar Pedagógia*, 123: 1 pp. 19-32., 14 p.

Peer-reviewed papers published in other frontier science journals

Molnár Anita, Oláh Dávid, Borbény Szilvia (2020). Sportszakos hallgatók magyar vonatkozású olimpiatörténeti ismereteinek vizsgálata = Examination of the Hungarian-

related Olympic history knowledge of sports students. Magyar Sporttudományi Szemle, 20: (86) pp. 47-54., 8 p.

Refereed presentations in Hungarian and foreign languages at national and international conferences

Molnár Anita (2024). Testnevelés tantárgy szerepe: a gyakorló iskola tanulóinak véleménye a NAT 2020-hoz kapcsolódva. Fiatal Sporttudósok XII. Országos Kongresszusa. Budapest, 2024. december 6.

Molnár Anita (2024). Célok szerepe az iskolai testnevelésben: fókuszban a testnevelőtanár szakos hallgatók. Hungarian Conference on Educational Research HuCER, Eger, 2024. május 23.

Molnár Anita (2022). Értékorientáció a testnevelő tanárképzés különböző szakaszában. Fiatal Sporttudósok X. Országos Kongresszusa. Budapest, 2022. november 30.

Molnár Anita, Bognár József, Vajda Ildikó (2022). Testnevelőtanár szakos hallgatók cél-, érték és szemléletrendszere. 15. Képzés és Gyakorlat Nemzetközi Neveléstudományi Konferencia. Sopron, 2022. április 28.

Molnár Anita, Vajda Ildikó (2021). Testnevelő tanárok szerepe az egészségtudatos életmód kialakításában: az oktatási módszerek jelentősége testnevelő tanár szakos hallgatók és képzők oldaláról. 14. Képzés és Gyakorlat Nemzetközi Neveléstudományi Konferencia. Kaposvár, 2021.

Molnár Anita, Bognár József, Vajda Ildikó (2021). A testnevelő tanárok mintaadó szerepe és az egészségmagatartás közvetítése: a bemutatás szerepe. XVIII. Országos Sporttudományi Kongresszus. Pécs, 2021. június 2-4.

Molnár Anita, Vajda Ildikó (2020). Pedagógusok egészségmagatartása az egészségnivelés függvényében. Kreativitás – Elmélet és Gyakorlat: Interdiszciplináris Online Konferencia. Debrecen, 2020. december 11.

Molnár Anita (2020). Pedagógusok és pedagógusjelöltek egészségmagatartásának vizsgálata életkor függvényében. A Magyar Tudomány Ünnepe: EKE Pszichológiai Napok II., Fiatal kutatók és a tudomány 1. szekció. Eger, 2020. november 28.

Pre-selected poster

Molnár Anita, Vajda Ildikó, Bognár József (2021). Testnevelő tanári példamutatás és az egészségmagatartás közvetítése a bemutatás módszerén keresztül. Hungarian Conference on Educational Research HuCER. Online, 2021.

Presentations in Hungarian and foreign languages at conferences on frontier science, both national and international

Molnár Anita (2021). Sportszakos hallgatók magyar vonatkozású olimpiatörténeti ismereteinek vizsgálata. 35. Országos Tudományos Diákköri Konferencia: Testnevelés- és Sporttudományi Szekció. Szeged, 2021. április 7-9.

Molnár Anita, Nyisztor Petra, Oláh Dávid (2020). Magyar vonatkozású olimpiatörténeti ismeretek vizsgálata két egyetem sportszakos hallgatóinak tükrében. XII. Országos Sporttudományi Kongresszus, Győr, 2020. szeptember

Nyisztor Petra, **Molnár Anita**, Borbény Szilvia, Oláh Dávid (2020). A sportolók kettős karrierjéhez kapcsolódó szükségletek és elvárások vizsgálata atléták körében. XVII. Országos Sporttudományi Kongresszus, Győr, 2020. szeptember

Molnár Anita, Oláh Dávid, Borbény Szilvia (2019). Sportszakos hallgatók magyar vonatkozású olimpiatörténeti ismereteinek vizsgálata. Fiatal Sporttudósok VII. Országos Kongresszusa. Budapest, 2019. december