

## Expediency of health fitness and shaping programs implementation on physical education classes for girls' high school age

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### Abstract:

Questionnaire of schoolgirls show us the lack of interest to traditional classes of physical education. To make classes of physical education more diverse health fitness and shaping for high school girls were applied.

The purpose of this study was to increase efficiency of physical education classes at secondary school by applying health fitness and shaping.

Health fitness and shaping due to dynamics of effects on the schoolgirls' body and due to classes duration comply with the structure of physical education classes at schools. This implementation was effective and promotes positive motivation to pupils for systematic visiting the physical education classes. Programs can be recommended for further use at school classes.

**Key words:** high school girls, physical education classes, motivation, health fitness, shaping.

### Introduction

In Ukraine physical education of students is an integral and essential part of all educational work. Physical education should play an important role in preparing fully-developed personality because young man brings out of school theoretical knowledge and skills that are important for the future life.

Nowadays important problems of social development are preservation of the nation gene pool, the formation of healthy younger generation and training children, adolescents and youth to the full independent life. (O. V. Andreyeva, 2002; G. V. Bezverkhnya, 2004). At school age the foundations of health have been laid. However the current critical situation of health in Ukrainian population has also affected the students. A big part of the Ukrainian students have variations in health status. Only 20% of school age children can be considered as healthy (T. Y. Krutsevych & G. V. Bezverkhnya, 2010). 5-6% of first classes children are included to special medical group and in high school it is included every third student (T. Y. Krutsevych, 2006). It is spread various diseases of the musculoskeletal system, cardiovascular system, respiratory system, nervous system among children of primary school (V. Zemtsova 2006; V. A. Kashuba & Ziad Nasrallah, 2008; V. P. Nedilko, 2008).

The health of high school girls causes a particular anxiety. It could be caused by lack of physical activity, nervous stress which is associated with the necessity of mastering and processing large amount of information by students during studying at school.

It is well known that effective physical education can largely positively affect the health, the level of efficiency and even professional future of students (R.V. Erl & T.R. Bekhl, 2012).

However, results of scientific researches shows that high level of physical activity including regular physical culture and sport is characteristic of 10-15% of current students' population. The amount of physical activity is much lower than age limits for the majority of schoolchildren. Their physical activity is at the adults' level of 32-55 years (T. Y. Krutsevych, 2000). There are a lot of researches concerning the problem of reducing students' physical activity (V. A. Shapovalova, 1999; V. S. Dobrynsky, 1999; T. Y. Krutsevych, 2000; M. M. Bezrukykh, M. F. Kyselev, G. D. Komarov, A. P. Kozlov, 2000; T. I. Suvorova, 2003). One of the reasons of reducing physical activity the experts mention not only insufficient of school physical education classes but also the reducing of interest in their traditional sense. In particular A. Ohnystyy and M. Medynsky (2000) emphasize that the reason for the low motivation of students to physical education classes is lack of choice of classes form, their dissatisfaction with the traditional content of school physical education. That is why, according to B. Shyyan for optimal solution of all problems concerning physical education we should practice various forms of classes, provide sports and recreational activities in daily routine at school that mean to use that forms which give the highest effect according to specific conditions.

The current training program of 2 classes (45 min each) physical education per week does not provide the required amount of students' physical activity (T. Y. Krutsevych, 2000). It is confirmed that reducing trend of physical activity level in age especially girls. It is linked to the fact that high school girls do not show significant interest to physical exercises. They are not interested in forms and methods of physical education that are used in the classes today. It caused to reducing in motivation to any physical activity classes.

To our mind, low interest to physical education is caused above all by lack of organizational and methodological, logistical support of educational process, deficiencies in organization of physical education at school, underestimation of importance of this area by teachers of physical education and school administration (U. S. Shevciv, 2008).

To improve the situation teachers replace or supplement the program content of physical education. Three quarters of teachers support the implementation of modern technology (aerobics, step aerobics, shaping, sport dancing, and fitness), that are popular among high school girls, in physical education classes.

Despite the large amount of researches about improvement of physical education there is a necessity for further development and using latest types of fitness at schools. In the special literature there are not enough highlighted the possibility of using health fitness and shaping in classes forms of physical education of schoolgirls. It makes this problem relevant to study (U. S. Shevciv, 2008). The aim of these types of health training is physical perfection, attractiveness, aesthetic shape, good move, graceful posture – everything that are dreamt by most girls of high school age.

### Method

1. Analysis of the literature was used to determine the status of the issue - the possibility of applying health fitness and shaping on physical education classes for high school age girls.

2. Pedagogical observations and pedagogical experiment were conducted to determine the effectiveness of the implementation health fitness and shaping to school physical education program of high school age girls.

3. The questionnaire was conducted at the beginning and at the end of the experiment involving 58 high school age girls. The experiment lasted for a month of these classes and there were involving participants of control and experimental groups. The questionnaire was specifically designed for this conducting.

4. Methods of mathematical statistics were used for the processing and interpretation of the experimental data.

During the 2013-2014 school year students of third year studying have implemented health fitness program in Lviv secondary school № 43 during the pedagogical practice. 20 high school age girls were doing this program. Thus they made up the experimental group. Simultaneously the second part of girls of these classes was doing the program of traditional physical education classes. At the same time shaping was implemented in Lviv secondary school №87. Classes were held 2 times a week. 38 high school age girls (15-16 years) were involved into this research. There were also formed the control group (CG) and experimental group (EG) of 19 people each. Classes were held 2 times a week.

### Results

Physical education in secondary school is an integral part of education and optimization of physical, functional and psychological status of students, preparing them for further adulthood. The lesson is the main form of physical education classes at school among many forms. One of the major requirements for modern lesson combined with educational orientation is achieving high motor compactness, dynamic and emotionality. This can be achieved by creative use of forms and methods that stimulate students' activity and interest to doing exercises (U. S. Shevciv, 2008).

However, analysis of program and regulatory support of physical education, real situation in physical education of students make us to conclude that its effectiveness is far from perfect. In particular, according to (G. V. Bezverkhnya, 2004; G. V. Bezverkhnya, 2004; T. Y. Krutsevych, 2000) the reason for low motivation of majority of high school age girls to physical education classes is lack of choice of classes form, their dissatisfaction with the traditional content of school physical education.

The main tasks of physical education classes in secondary school are preparation for passing educational standards and state tests. New content, innovative forms of conducting physical education classes can make it desirable and interesting for students.

For schoolgirls (high school age girls) physical education classes can turn into interesting and desirable through fitness and shaping which are quite popular among young people.

Adolescence is considered to be the most difficult period in growth and development of students. This is the period of self-determination and self-esteem, awareness their own identity, own I. This period is one of the most critical in the body's development. This is the time when there is a transformation of the central components of body system to new system for going to the next period of development (O. V. Andreyeva, 2002). This increases the perception of the body to various external factors. Here is the idea of a special delicacy of teenagers. Girls are susceptible especially at this age. They carefully and meticulously are examining their face and body. Thus they are not always satisfied with results of its observation (O. L. Blagii & M. V. Chernyavsky, 2005). Understanding the imperfection of their physical development make them to hurt reaction. Here we have the necessity to direct their desire for physical exercises to help them to get rid of figure flaws, excessive weight, to gain proper posture, march, beauty movements and to get rid of inferiority feelings. All these increase the topicality of implementation shaping and fitness classes in order to educate full, harmoniously developed personality with good spirit and body.

The effectiveness of physical education classes depends on the program content they are held (T. Y. Krutsevych, 2000). However, a survey of high school age girls found out dissatisfaction with traditional content of school classes. We have offered girls to assess their desire to engage traditional physical education classes and classes with using health fitness and shaping. They were asked to assess their desire to engage with 10-point scale where the maximum desire is 10 points, and 1 point is absence of any desire.

Conducted survey shows that schoolgirls assess their desire to engage physical education classes on the traditional program on average by 4 points (Fig. 1).

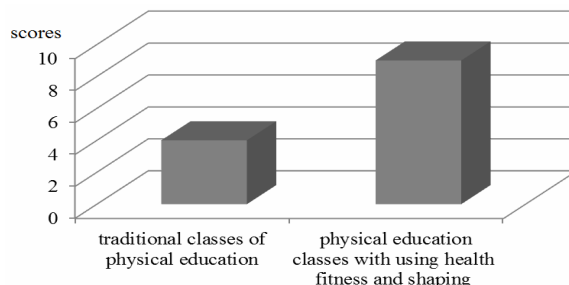


Fig. 1. Schoolgirls' answers about attitude to physical exercises

This assessment confirms that girls do not have much desire to engage physical education classes of school program. However, high school age girls rated of 9 points their desire to engage classes using health fitness and shaping (Fig.1).

Thus girls of 15-17 years old would like to attend classes using new types of physical activity and they wish to attend classic physical education classes much less.

Analysis of the questionnaires identified schoolgirls' motifs to physical education class (Table 1).

Table 1. Schoolgirls' motives to physical education classes before experiment (n = 58) (%)

Nº	Motives	%
1	The desire to get good mark	37,5
2	The desire to improve health	15,5
3	The desire to have a good figure	18
4	Parents' insisting	-
5	Own conviction of its necessity	-
6	Teachers' instructions	39

It was found that "teachers' guidelines" were the main motive for 39% of respondents and for 37.5% was "the desire to get good mark" before experiment. This indicates that most of high school age girls do not have conscious understanding of importance of physical education classes and they engaged physical education only in order to get good mark.

Unfortunately but no one showed about their own and parents' beliefs in necessity of physical education classes. Only 15.5% of girls have desire to improve health.

During the survey it was found that only 14% of girls have a positive attitude to traditional physical education classes and the number of those who has negative is in three times higher (57%) (Fig. 2). 29% of respondents do not have a defined attitude.

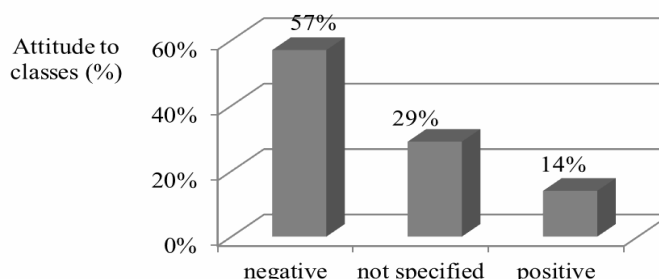


Fig. 2. Schoolgirls' attitude to physical education classes

The main reason for dissatisfaction with physical education classes schoolgirls mentioned monotony (32.2%). They find the content of the classes uninteresting for themselves (21.3%) and also called the cause of dissatisfaction with the lack of types of physical activity they like (16.4%). We can suppose that change of content of school physical education classes by the types of physical activity, which are like the most high school age girls will increase their interest to physical education classes.

Answers to the questionnaire also allowed us to find out the reasons of negative attitude of most high school age girls to traditional content of school physical education classes. We have received the following answers about shortcomings of traditional physical education classes (Table 2).

Table 2. Schoolgirls' answers about the reasons for dissatisfaction with physical education classes

No	Reasons	%
1	Excessive of physical activity	5.5
2	Lack of physical activity	5.5
3	Monotony	28
4	Not satisfied with classes' contents	38
5	Poor equipment	16
6	Lack of types of physical activity they like	5

For question: "How often do you miss physical education classes?" the answer of schoolgirls were: never - 9.7%, regularly - 11.9%, due to illness - 18.6%, occasionally - 59.8% (Fig. 3).

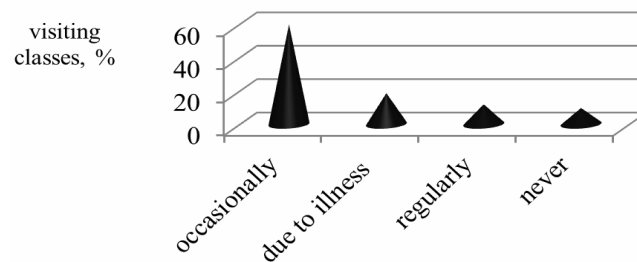


Fig. 3. High school age girls' visiting of physical education classes

The results we have got suggest that current educational program which provides two classes per week of physical education does not provide the required amount of motor activity for schoolchildren and is not interesting for high school age girls. Thus teacher should direct his efforts to turn gradually children necessity in movements into an orderly conscious activity during classes.

At the beginning of experiment, in addition to school physical education classes, interviewed schoolgirls regularly were doing exercise only 16%; periodically - 16.5% and rarely - 44%; do not do at all - 16%; were doing other types of exercises - 5.5%. The main reason for physical "passivity" most girls called lack of time, disorganization, lack of knowledge, skills and habits necessary to organize independent health activities.

We have offered schoolgirls in one of the questions to choose the most suitable for each kind of activity that could replace at all or partly traditional content of school classes. The results of answers to this question are shown in Fig. 4.

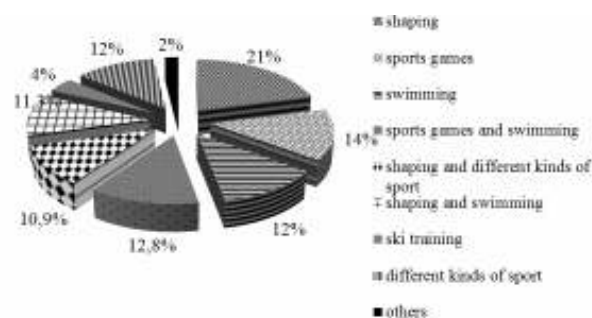


Fig. 4. Schoolgirls' determination of types of activity, suitable for full or partial replacement of traditional content of physical education classes (%)

A significant number of women would like to do shaping - 21%. Classes of sports games are preferred by 14%, swimming - 12%. However, 35% of high school age girls still prefer complex character classes instead meaningful classes: sports games and swimming - 12.8% of high school age girls, shaping and different kinds of sport - 10.9% and shaping and swimming - 11.3% of interviewed students.

Answers to the questionnaire about feasibility of changes in the content of school physical education classes were as follows: 47% - expressed for its necessity, 43% - named changes desirable and only 10% of respondents answered that changes are not obligatory.

During last years school and school education remains unchanged. It develops, and its development is caused by society development that imposes new demands to education. Nowadays traditional school that is

focused on transferring knowledge, skills and habits is old as the rate of knowledge increasing is such that school does not keep up with it. Experts pay attention to necessity for fundamental restructuring of educational process in secondary schools, implementing innovative approaches to educational system (V.M.Gumen & M. M.Lynets', 2005; N. V. Moskalenko, 2011).

The current state of population health requires finding new ways of improving physical education of the younger generation (G. V. Bezverkhnya, 2004). At school physical education classes should be opportunity to use the latest, popular among youth kinds of physical activity that would help further increasing of students' motivation to visit school classes.

In recent years high school students among different types of physical activity prefer fitness that has effective affect at correcting body structure, body weight, appearance, and promotes harmonious physical development, improves functional state of the organism (R.V. Erl & T.R. Bekhl, 2012). Our research has confirmed it.

Health fitness is a program that is directed to improve health, improve the function of cardiorespiratory system, improve physical development and physical qualities, and to develop leg muscles, abdominal muscles and muscles that form good posture, prevent scoliosis in children and teenagers.

Our survey noted the presence of one more popular among students type of activity - shaping.

Shaping is a program of classes that is directed at physical, spiritual and aesthetic improvement; increasing efficiency, correction and supporting good shape (T. Y. Krutsevych, 2000). It is a system of physical exercises for women that allow increasing or decreasing the amount of muscle tissue, reduces fat body percentage. Exercises are directed to muscle groups work of waist, chest, hips and buttocks that are performed in moderate pace.

This comprehensive system unites not only the physical exercises and principles of nutrition but also some art direction such as shaping choreography, shaping-style and concept of shaping care.

Classes contribute to a significant improvement of forms and body proportions that has essential value for high school age girls as well as contribute to the formation of settled motivation to systematic motor activity (R.V. Erl & T.R. Bekhl, 2012).

Implementation on school classes health fitness program consisted of five blocks of exercises: introductory part, complex of cardio exercises, strength training, complex of exercises for developing flexibility and final part (Table 3).

Table 3. Health fitness program for high school age girls

Blocks of exercises	Scope exercises	Duration of exercise (min, sec)	Rest (sec)
Introductory part	Activation of vegetative body functions and musculoskeletal system	3,5	
Cardio exercises	Dance character exercises	1,5	
	Running-jumping block	3,5	
	Large and medium gluteus muscles	2,5	
	The muscles of front and back of thigh	3,0	
Strength training	Upper limb muscles	1,0	
	Abdominal muscles	4,0	30
	Lateral thigh muscles	3,5	30
	Back thigh muscles	3,5	15
Exercises for developing flexibility	Back muscles	4,0	30
	Stretching back muscles	3,0	30
	Stretching the abdominals	2,0	30
	Stretching upper limb muscles	1,0	30
Final part	Stretching lower limb muscles	1,0	30
	Returning to output state of vegetative body functions	3,55	

Introductory part lasted 3min and 35sec and was directed at body preparation for performing the main part of class. It has included a complex of simple general developmental exercises on those muscle groups that are involved in the main part. The complex of cardio exercises included a set of simple, easy coordinated exercises that were performed under the strict music pace. The beginning has always had low intense exercises on warm-up. The main load fell to the upper and lower extremities muscles. The basis complex included dance elements, different types of jumps, squats and walking and also jogging and walking on the site. Complex duration ranged from 12 to 15 minutes. The intensity and pace were high (150-160 beats/min.). Each exercise of the main part shared to several sub-parts that made classes more varied, although the direction of the exercise did not change. Between doing each exercise were used short break ranged from 15sec to 30sec. It provided an opportunity of short rest and changing the starting position. These micro-breaks were used to explain the

performance of that particular exercise. The sequence of exercises was such that each next exercise continued logically the previous one. Eventually you can reduce or increase the number and duration of rest to adjust the load according to the class tasks. That is why it is also appropriate because students will have better physical state and their body will require less rest between exercises and also less time will use to explain certain exercises.

Strength training included a set of exercises directed to developing of muscles abdominal and front and back thigh strength. There are used exercises exactly for large muscles groups because it promotes better general and strength endurance. They are also more intense than exercises for small muscles groups. Exercises were performed in position that relieves the spine. Strength exercises were changing with exercises to restore or stretch. Exercises were performed in standard pace. The intensity was average (120-130 beats/min) and duration was between 15-16min.

Exercises for flexibility development included a set of static and dynamic exercises. They were performed standing, sitting, lying or near the wall bars. This complex was directed at developing both active and passive flexibility. The intensity was not high, duration was between 9-11min. Exercises for flexibility should be necessary used at the end of class because it improves the elasticity of the soft tissues of the musculoskeletal system. Consequently it increases mobility to 8-12%. It should also be thoroughly warm up the muscles that will be subjected to stretching. It increases blood flow in it and consequently elasticity (V.M.Gumen & M. M.Lynets', 2005).

In terms of safety it is also appropriate because muscles are warmed up and exercises will performed easier and will have more effect. It is less risk of injury during stretching.

Overall flexibility naturally grows to 14-15 years old. But it is different dynamics of development in different. Thus mobility develops faster in small joints than in big ones. The mobility of spine joints has another dynamic. It increases to 14 years old in girls and in boys to 15 years old. Mobility of joints is by about 10% higher in girls and women than in boys and men. Using exercises to develop flexibility in high school age girls is appropriate because this is a sensitive period for development of this motor quality.

Final part lasted 3.55 min and was directed at reducing activity of autonomic functions, gradual leading of cardiovascular and respiratory systems to state of mind. We have used exercise for muscles relaxation and breathing exercises to achieve this.

The health fitness program was performed by contemporary music. Music influences emotional state and mentality of schoolgirls that are involved. Well-matched music to the movements gradually develops musical memory, motor and musical culture. Music sets the pace of doing rhythmic movements and gives them entertainment.

Music of rock and roll, break dance, modern dance music fits the best for fitness which is popular among young people. We have to take into account the amount of emphasis per minute in choosing music. Exercise for neck muscles, on relaxation, stretching and static postures are performed with 40-60 accents per minute. Exercises for abdominal and back muscles, bending and walking are performed by the music of 70 accents per minute. Exercises for arms and shoulder girdle, pelvis, moves, dance moves are performed by the music of 80-90 accents per minute. Running, jumping, dance moves are performed by 130-150 accents. Fast running, rock and roll are performed by 160 accents and more. Thus it should be prepared for about three rhythms: basic, at which most of complex exercises are done, fast - for running and slow - for breathing and relaxation.

It should be also paid attention to teacher's keeping score during the exercises. This helps to better improving of music rhythm by students and sets the necessary emotional background. The account should be clear and loud with simultaneous using of organizational guidance that will allow correcting pupils movements directly during their performance of exercises. This will have significant effect on right performance of exercises (R.V. Erl & T.R. Bekhl, 2012).

A second type of health technology that was proposed to schoolgirls was shaping. There were involved 38 high school age girls into experiment.

To implement the shaping program in process of school classes we reduced video program of International shaping federation "Shaping classic". This adapted program was recorded on video where three instructors simultaneously performed exercises of varying intensity.

Introductory part lasted 4 min and was directed at body preparation for performing the main part of class. There are general and specific warm-ups in sport physiology (G. V. Bezverkhnya, 2004). It is used special warm-up in shaping that includes exercises of medium coordinating difficulty that is directed at body work in aerobic mode power supply. All girls performed introductory part of one block intensity by one instructor. At the end of their performance a heart rate increased to 120-140 beats/min.

Shaping is a program consisted of introductory, basic and final parts as the original program of International Federation. In order to use program on school classes we have adapted the length of main part to length of school class (reduced from 45 to 33 min) by reducing the number of blocks from 11 to 8. Their sequence helped to raise the load and to form motor skills (Table 4).

Table 4. Short-shaping program adapted to physical education class

Exercises blocks	Exercises direct and scope	Duration of exercise (min, sec)	Rest (sec)
Introductory	Activation of vegetative body functions and musculoskeletal system	3,55	15
1	Front thigh muscles	3,55	15
2	Back thigh muscles	4,05	15
3	Inner thigh muscles	3,55	20
4	Outer thigh muscles	3,20	20
5	Large and medium gluteus muscles	3,30	20
6	Oblique abdominal muscles(waist)	4,00	20
7	Rectus abdominal muscle (top press, bottom press)	4,40	20
8	Groups muscles of upper back or arms or legs	4,00	20
Final	Reducing autonomic functions	3,55	–

We did not use exercises for thigh muscles, buttocks and waist. Because they additionally correct mentioned before areas of the body and increase duration of class. The aim of our shaping implementation on school classes are not only correction of body shapes but above all are increasing health level, physical fitness and attracting high school age girls to visit school classes.

The first four exercises of main part are directed at correcting the hips. It is tied to the fact that involving to the work muscles in 5th exercise are directed at correcting large and medium gluteus muscles, 6-7 exercises - at correcting the waist. There are chosen exactly these exercises because these body parts are often wanted to be improved by girls. In the 8th exercise was load of muscles groups of upper part of back and arms because to our opinion and opinion of such experts (U. S. Shevciv, 2008) the muscles of upper part of back affect to posture correction. Doing exercises for different muscles groups correlated with principle of variability training. Variability is a special change of elements that is directed to piddity body of participants the impact of new or different types of training load. We can vary the training program by periodically changing the amount, size of load, its extent and duration of rest intervals. The principle of variability is used to help participants to achieve growth of indicators, to reduce the risk of overtraining, to get rid of monotony of classes and to maintain training intensity at sufficient level. You can also use the load change during the week to achieve similar goals. If you allow the technical equipment it is possible to add few video with exercises. It will also help students not to lose interest to classes too fast and not to adjust body under constant equal work. You can change the content of exercises for certain level of physical fitness (one instructor performs various exercises) or to stress to the girls to do exercises next level of complexity by themselves because the level of physical fitness will rise with time. This complies with the principle of gradual increasing of load. But it must be followed carefully and to monitor that students, while waiting for instant results, should not go immediately to the complex exercises regime because it can lead to congestion, pain in muscles and, therefore, reduce the desire to exercise further. All this suggests that there is necessity to closely monitor each student and to select the load according to the principle of individualization (R.V. Erl & T.R. Bekhl, 2012).

All units of its structure are divided into two exercises making classes more interesting and varied. It does not change the content of exercise but it is changed only the way of doing it. The focus of exercises and their sequence are selected so that each exercise logically proceeds with previous and follows next one which also comply to the structure of exercise class (O. L. Blagii & M. V. Chernyavsky, 2005).

Classes were held under the music. Music, basically, was the average rate in the introductory and main parts of the class and in the final - slow. The final part as introductory all participants of experiment were doing at the same rate as instructor on the screen.

The first block is directed at correcting anterior thigh muscles. The starting position of three instructors is standing. Each instructor begins to do exercise with right foot but with varying intensity. In the second exercise moves are done with the left foot.

The second block is directed at correcting posterior thigh muscles and also consists of two exercises. Performance of first exercise varies in rate performance and difficult starting position of second and third instructors. In the second exercise all three video instructors do exercises to stretch the muscles of posterior thigh but second and third instructors do exercise with burden - cuffs weighing of 0.5 kg.

Exercises of third block are directed at correcting the inner thigh muscles. The starting position is the same for all three instructors - sitting angle. Exercise includes alternate breeding and bringing the feet with load on the inner thigh muscles but with varying intensity for each of instructors.

The fourth block is for correcting forms of outer thighs parts that is "hip side." The basis of exercise is breeding straight leg to the side and back from the starting position of lying on its side. Exercise performing was governed only by load intensity by first and second instructors and third instructor governed exercise by intensity and initial position.

In the fifth block that is directed at correcting the buttocks different intensity was achieved by varying the rate and amplitude of exercises performing. In the first exercise backward moves were done from starting position on their knees. The first instruction was doing moves with straight leg, second and third – with bent leg backward. The starting position (lying on back, legs are bent) and the pace of the exercise change in the second exercise.

Sixth block – right - left slopes trunk are directed at correcting the abdominal muscles (waist). The rate and amplitude of slopes that are demonstrated by all three instructors are different. First instructor has low rate of performance, the second one - middle and third instructor - fast.

The seventh block - for rectus abdominal muscle was also consisted of two exercises and was differed not only by the way of doing but also with starting position. In the first exercise where abdominal muscles work (top press) starting position is lying with hands behind head. In the second exercise where is working lower press the starting position is lying on back with an emphasis on the forearms, legs are bent.

Exercises of eighth block schoolgirls were doing for muscles groups of upper part of back.

Stretching was done after each exercise of those muscles groups that were working. Girls were resting for 15-20 sec and changed the starting position.

From the theory of physical education implies that even light work of tired muscles has positive affect on recovering their operational efficiency during rest (U. S. Shevciv, 2008). There is enough less numbers of rest intervals for girl with high and middle levels of training, for example between each block. However individuals with low level of physical development need longer and more frequent intervals of rest to recover. In order to increase level of physical fitness of schoolgirl, she will be able to perform few sets of exercises and longer series with smaller intervals of rest between sets (R.V. Erl & T.R. Bekhl, 2012). Rest duration exactly of 15 - 20 seconds is optimal for development of muscular endurance. That is why such intervals are used. Thus students need to feel their progress in classes to improve overall health level of pupils and improve their motivation to physical culture classes.

The duration of final part was 3.55 min and was directed at reducing activity of autonomic functions, gradual reduction of cardiovascular and respiratory systems to a state of mind. There were used exercises on relaxation and moderate muscles stretching.

Results of our research indicate that program of health fitness and shaping can be applied in school physical education classes. Health fitness and shaping of its effects dynamic on schoolgirls body and classes duration comply with structure of physical education classes in schools. Using video and musical accompaniment promote rational dosage of loads during all class. It helps to differentiate the load according to individual characteristics and level of physical fitness of schoolgirls and also create a positive emotional background. Application of health fitness and shaping become entirely possible in school physical education classes when schools are provided with teaching materials, logistical tools (player, projector or TV) and simple equipment (mats, sticks, cuffs, weights).

It was found out the influence of shaping training on positive formation of high schoolgirls motivation to classes with new plot as a result of repeated questioning. Result of processing questionnaires showed that the highest percentage (88%) of respondents consider that the main motivation to fitness classes is “desire to improve figure”, 22% - “desire to improve health”. None of girls offered their options choosing of above mentioned.

Responses to questionnaire allowed to find out the attitude of high schoolgirls to traditional and new content school classes of physical education: 94.5% of schoolgirls reacted positively to new content of classes and only 5.5% called their attitude uncertain.

At the end of the experiment It is indicated that 55% of high schoolgirls began to do exercises, 16% - permanently, 11% mentioned that are involved into but very rarely. The same percentage is involved into but from time to time; 16.6% said that doing fitness exercises and are engaged at the gym.

Responses to questionnaire on feasibility of changes in the content of school physical education classes were as follows: 77% called for changes, 11% named changes as desirable.

As a result, it should be emphasized that presented results indicate lack of interest in high schoolgirls to traditional physical education classes, while modern girl is interested in image formation: good figure, gait, elegance. Thus it is advisable to offer schoolgirls such classes to help get rid of figure flaws, excessive weight, to gain proper posture, gait and beautiful movements.

## Conclusions

1. There is actively covered practice of sport and recreation activities, experience of implementing numerous recreational gymnastic programs, but their inclusion in school physical education classes has been learned and highlighted not enough in analyzed contemporary literature today that confirm relevance of our research.

2. The results of survey indicate lack of interest in traditional physical education classes in high schoolgirls while modern girls are interested in image formation: good figure, gait, elegance. Therefore it is advisable to offer schoolgirls classes of relevant content. Conducted survey confirmed that proposed method



promotes increasing of interest in school physical education classes and formation of pupils motivate to the systematic visits.

3. Health fitness and shaping of its effects dynamic on schoolgirls body and classes duration comply with structure of physical education classes in schools. Using video and musical accompaniment promote rational dosage of loads during all class. It helps to differentiate the load according to individual characteristics.

4. Implementation of health fitness and shaping programs in physical education classes is effective and promote formation of positive motivation to regular visits in students. Programs help to facilitate the tasks of physical education at school and may be recommended for further use in school classes.

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### References

- Andreyeva, O. V. (2002). *Programming fitness classes for girls 12-13 years* [in Ukrainian]. – Kyiv, 20.
- Bezverkhnya, G. V. (2004). *Motivation for physical education classes and sport of students 5-11 grades*. [in Ukrainian]. Lviv, 23.
- Blagii, O. L., & Chernyavsky, M. V. (2005). Innovative approaches to physical education of students. *Materials of IX International Scientific Congress "Olympic sport and sport for all"*. [in Ukrainian] Kyiv, 546.
- Vaschuk, L. M. (2012). Fitness in motivational system of value orientations of students in upper secondary schools *Materials of Youth Research Bulletin* [in Ukrainian] Lutsk, 23-48.
- Gumen, V. M., & Lynets' M. M., (2005). Impact of shaping classes on students' physical condition of higher educational institutions. *Materials of scientific collection of Pedagogy, psychology and medical-biological problems of physical education and sport* [in Ukrainian] Kharkiv, 3-12.
- Erl, R.V., & Bekhl T.R. (2012). *Basics of personal training* [in Russian] Olympic books, Kyiv, 724.
- Krutsevych T. Y. (2000). Management of adolescents' physical condition in physical education system [in Ukrainian] Kyiv, 44.
- Moskalenko N. V. (2011). Planning of concept of innovation programs of physical and recreation activities in schools // *Materials of Sports Bulletin Dnieper*. [in Ukrainian] Dnipropetrovsk, 7-15.
- Shevciv U. S. (2008). Finding ways of increasing interest to physical education classes for high school age girls *Journal of Theory and methods of physical education* [in Ukrainian] Kyiv, 2, 94-97.