



MEDICAL UNIVERSITY
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INFLUENCE OF BULGARIAN FOLK DANCES
ON THE HEALTH OF THE STUDENTS
FROM MEDICAL UNIVERSITY OF VARNA

DISSERTATION

For the acquisition of the educational scientific degree
“DOCTOR (PhD)”

Higher educational level 7. „Healthcare and sports“
Professional direction 7.4. „Public Health“
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The dissertation contains 139 pages and is illustrated with 10 tables and 6 figures. The bibliographic reference includes 117 literary sources, of which 43 are in Cyrillic and 74 are in Latin.

184 students were surveyed.

The thesis defense will be held on December 6, 2019 from 10:00 in the 3rd Auditorium, Rectorate building of the Medical University "Prof. Dr. Paraskev Stoyanov"- Varna.

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Abbreviations

BgNT	Bulgarian folk dances
CED	Compulsory elective discipline
BMI	Body Mass Index
MU-Varna	Medical University of Varna
WHO	World Health Organisation

INTRODUCTION

Dance is culture and movement, communication and pleasure, but it can also be a method of prevention and health promotion. Dance has been used since ancient times as a way of healing and is an integral part of many therapeutic traditional rituals. Dance is a universal form of expression that is uniquely positioned to have a beneficial effect on human health and well-being. Globally, researchers have become increasingly interested in the benefits of dance to health and quality of life. Research shows that physical activity associated with dance is an effective primary prevention of socially significant chronic illnesses.

Bulgarian Folk Dance (BgFD) optimally combine physical activity, social interaction, creative and emotional expression. BgFD, with their unique odds meters and ethnographic diversity, are an intangible cultural heritage created and bequeathed by our ancestors, which must be preserved for future generations. In recent years, the interest of young people in BgFD has been revived, which has made the thesis relevant. More and more people in Bulgaria and around the world study and dance BgFD. In this sense, BgFD are an innovative research area that attracts research interest, including in the field of public health and health promotion.

BgFD are "encoded" in our national culture, which favors their much more natural introduction as physical activity among Bulgarian students. In this dissertation, BgFD are a compulsory elective discipline (CED), an alternative to sports, for students of all specialties at the Medical University "Prof. Dr. Paraskev Stoyanov"- Varna (MU-Varna). The focus of this dissertation is to study the impact of BgFD on the health and place of the BgFD in the academic curriculum. The research community are the students from MU-Varna.

The ambition of this project is to provide independent evidence of the importance of BgFD as a physical activity equivalent to sports. The results obtained can be used as a promotion of a successful academic model for the study of BgFD, which could be applied in all higher education institutions in Bulgaria.

The presented dissertation is a scientific contribution to the implementation of the strategic goals formulated by the "National Strategy for the Development of Physical Education and Sport in the Republic of Bulgaria 2012-2022", in part III.2.1. Physical Education and Sports for Students.

In MU-Varna only physical education classes are conducted with mixed groups, with students from different specialties of Bulgarian and English language courses. Studying BgFD is an equal alternative to sports, and an effective way of overcoming differences in the multinational student community. BgFD are a unique social phenomenon that deserves its special place in the academic curriculum.

AIM AND OBJECTIVES OF THE DISSERTATION

The aim of this paper is to investigate the impact of BgFD on the health of students from MU-Varna and the place of BgFD in academic curriculum.

OBJECTIVES OF THE DISSERTATION

The main tasks supporting the purpose of the study are summarized as follows:

Objective 1. To determine students' attitudes and motivation to play sports and BgFD and to determine the factors that determine them.

Objective 2. To draw an anthropometric profile of the students from MU-Varna, comparing the indicators between the group of students studying sports and BgFD.

Objective 3. Assess and compare students' subjective health and quality of life.

Objective 4. Determine the stress levels of the students participating in the study.

Objective 5. Conducting a qualitative Delphi study - the summarized and analyzed quantitative results will be presented to a group of experts in choreography, higher education and sports, with the aim of reaching consensus on the role of BgFD as a physical activity and their place in the physical education curriculum.

Objective 6. Preparation of a training tool for the study of BgFD, which will also be available online on the University's Blackboard platform.

The driving hypothesis of the project is that BgFD are equivalent in physical activity to sports activities, with no higher levels of stress and with a good quality of life for practitioners.

MATERIALS AND METHODS

Study design

The study design includes a quantitative and qualitative phase (Fig. 1).

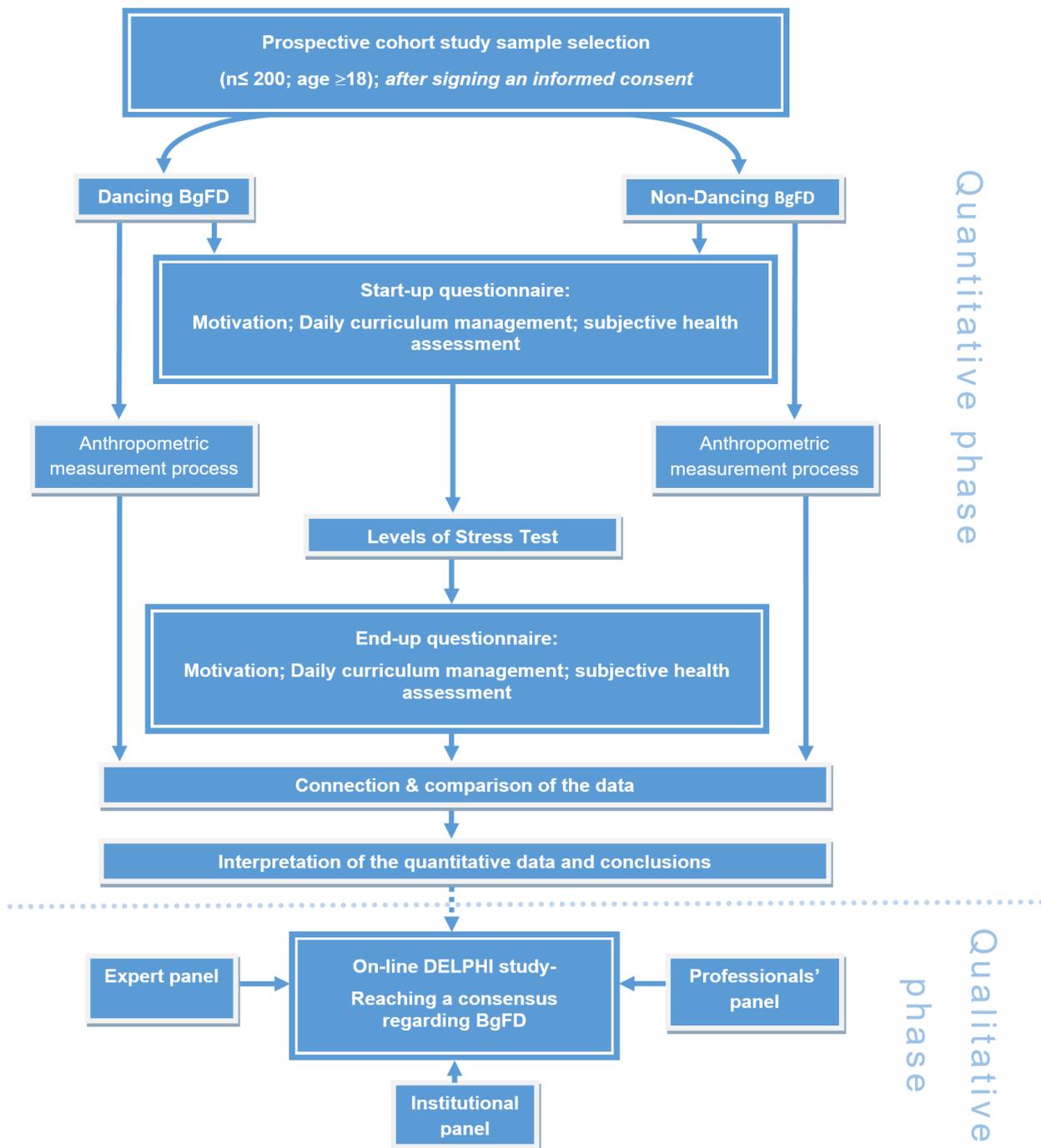


Fig. 1. Study design

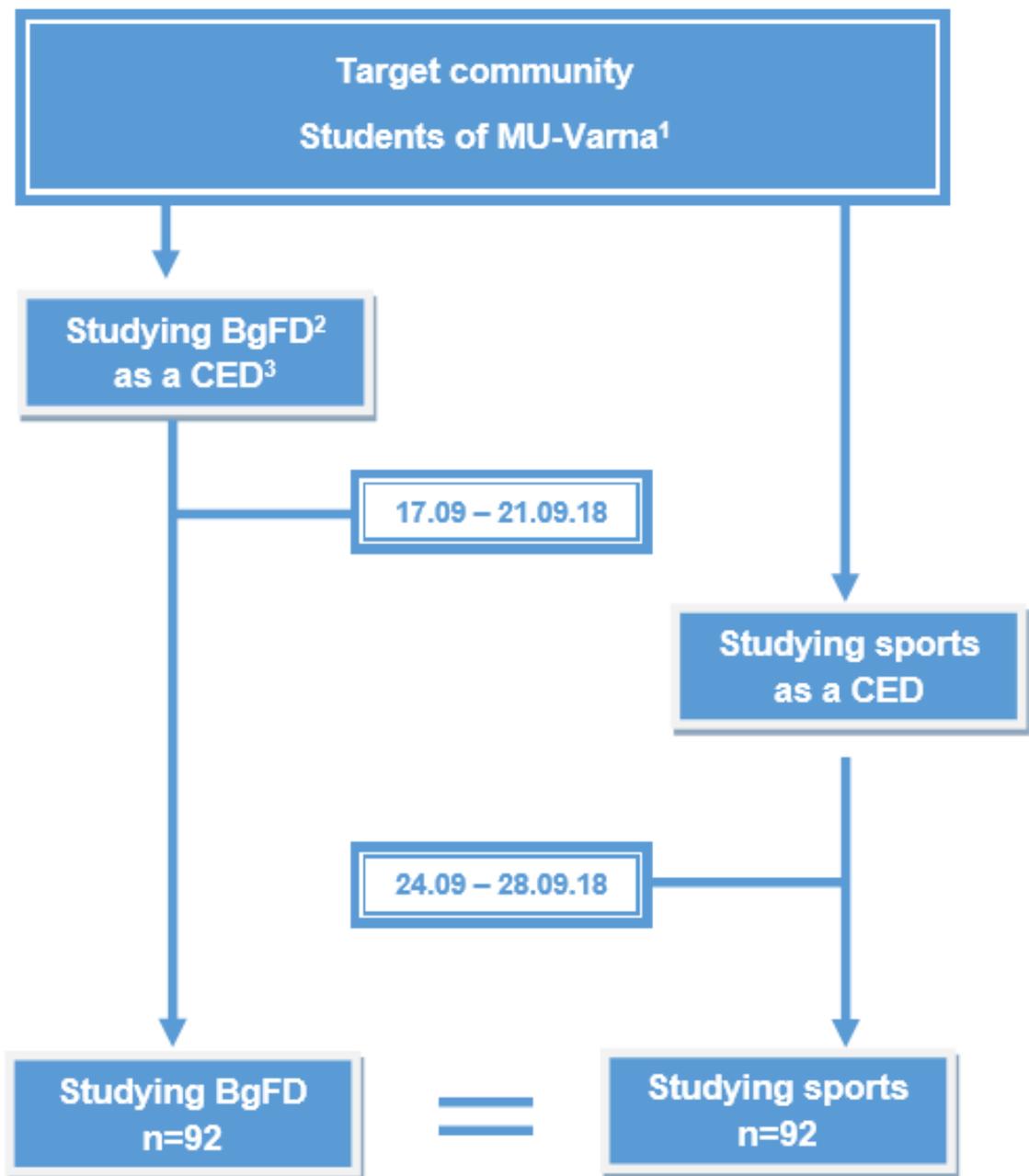
A mix-method approach is applied, which involves quantitative and qualitative methods applied in two consecutive phases. The mix-method approach is a procedure by which both quantitative and qualitative data are collected, analyzed

and "mixed" in order to explore in greater depth the scientific objectives set. The meaning of "mixing" is that neither quantitative nor qualitative data are sufficient in themselves to cover in detail and in depth a complex topic such as BgFD in the context of health promotion. When used in combination, quantitative and qualitative methods complement each other and allow for comprehensive analysis.

The design of this project includes the first quantitative phase of a pilot observational study, in which participants are divided into two main groups: dancing BgFD and non-dancing athletes (volleyball and aerobics) in their physical education and sports classes at MU-Varna.

The sample consists of 184 students recruited on the principle of the first responded in the period 17.09.2018 - 28.09.2018, divided into two main groups: dancers (92 people) and non-dancers BgFD (92 people) in their activities in CED. The sampling formation follows a specific algorithm (Fig. 2).

1) From the group of students from MU-Varna, who chose to study BgFD as a CED, within the period 17.09.2018 - 21.09.2018, a sample of BgFD-students was formed, which reached a number of 92 participants. 2) From the group of students from MU-Varna, who chose to study sports as a CED in the period 24.09.2018 - 28.09.2018, the group of sports was formed, the participants were selected by gender and by specialty, and the same number of participants was achieved - 92 people, on the principle of the first to responding. Age was also matched between the two groups. During the indicated time periods, after completing informed consent, the first questionnaire was submitted for completion.



- 1: **MU-Varna** – Medical University of Varna
- 2: **BgFD** – Bulgarian folk dances
- 3: **CED** – Compulsory Elective Discipline

Fig. 2. Flow diagram of participants enrollment from the targeted population - the community of the students at MU of Varna studying CED sports or BgFD during the academic 2018-2019 year.

1. Quantitative methods

The quantitative methods included 3 basic groups: sociological method, anthropometric study and statistical methods of analysis.

1.1. Sociological methods- tools questionnaires

At the beginning and at the end of the winter semester, two questionnaires were prepared and applied to measure motivation and attitudes towards BgFD, namely the subjective opinion on the impact of BgFD on academic performance and the organization of time in the preparation of university study assignments; quality of life related to health. In the middle of the semester (November), a standardized tool was applied to determine the emotional state and level of stress of the participants. This standardized tool for psychological measurement aims to investigate and determine the impact of BgFD on student performance and training.

The instruments: Three questionnaires - one standardized for stress assessment and two designed for the purpose and objectives of the project. The questionnaires included in the survey use a modified Likert scale for attitudes and motivation to dance, in which each element of the scale is rated as 1 (absolutely disagree) to 5 (absolutely agree). Subjective health assessment is also performed on a 5-point scale ranging from 1 (very poor) to 5 (excellent), as well as through a thermometer or visual analog scale (from 1 - the "worst health status you would have you could have "up to 100 -" the best health status you could have ").

1.2. Anthropometric measurements for physical fitness reporting.

- Measuring height;
- Measuring weight in kg.;
- Measuring age in years;
- BMI;
- Measurement of dynamic flexibility (slope depth). The test is carried out with a device with a centimeter and a movable plate. The appliance should be placed in front of a chair, bench or other stable plate on which the test person is climbing.

After a slope with knees stretched, strive to push the plate as smoothly (without pushes) as possible. The slope depth is recorded to the nearest 1 cm with positive and negative values;

- Lower limb speed measurement. Measures the speed of movement of the lower limb in the horizontal plane (left and right). The investigated person is in a supportive seat on the floor. A 15 cm high cone is placed next to his soles. At a signal, he raises his foot (optional) and touches the floor with one heel on the other and the other side of the cone, his knee should be straight. Moving the legs from side to side of the cone is counted as one working interval. They count the number for a time of 20 seconds;
- Upper limb velocity measurement. The test is performed using two boxes and 12 pcs. tennis balls that are placed in one of the boxes. Following the signal, the subject should move the balls one by one into the empty box. Then, with the other hand, return them to the first box again one by one. Measure the transfer time of the balls from the first box to the second and from the second to the first in seconds;
 - Maximum upper limb force measurement. It is measured with a manual dynamometer and the subject undergoes two attempts. The better of them is respected;

Anthropometric measurements aim to determine the level of these indicators, ie. the level of physical ability of the dancers and non-dancers.

1.3. Statistical methods

Statistical data processing involves descriptive analysis, and Students' t-test (parametric method), arithmetic mean (M), and standard deviation (SD) were applied to test hypotheses to compare continuous and interval indicators.

The survey included a modified Likert scale for attitudes and motivation for dance, introduced by Buerdon (2015), in which each element of the scale is rated as 1 (completely disagree) to 5 (absolutely agree).

The information collected from the survey was summarized in tabular form using MS Excel, and the statistical analysis was performed using IBM SPSS Statistics v.23.

The results obtained were considered statistically significant when the p-value <0.05 , thus rejecting the null hypothesis.

Depending on the objectives of the study, the following methods of analysis are applied:

Statistical data grouping method – the traits are arranged according to their type in variational, interval, categorical, degree and dynamic statistical series.

1. Descriptive methods

1.1. Dots assessment – to calculate the mean and standard deviation of quantitative signs.

1.2. Intervals assessment

a. Significance – $p=0,95$ (95%), error type I is 0,05 (5%).

b. Confidence intervals (CI) – They are interpreted as the probability that the specified interval contains the actual point estimate of the population. A 95% confidence interval was used.

2. Graphical method

Bar graphs are used.

3. *Comparative analysis* – Independent-Samples T Test was used to compare continuous and interval indicators because of the design of the study. Independent-Samples T Test - compares two independent groups (eg dance / non-dance). Ideally, for this test, participants should be assigned to two groups at random, so that any difference in outcome is due to a difference in attitudes and motivation and other factors.

4. Pearson correlation analysis. Correlation coefficient assumes values between -1 and 1, with the sign depending on the direction of the association, and values above 0.5 are considered as strong correlation. Correlations measure the degree of association

between two or more variables. Pearson's correlation coefficient is a measure of linear association.

1.4. Qualitative methods

The second phase of the study involves a qualitative Delphi study or consensus method (March-June, 2019), which aims to reach consensus on the place of BgFD in the compulsory curriculum in higher education as a type of motor activity that improves the health and quality of students' lives.

During the study, the basic principles of the Delphi study will be respected: *anonymity* (experts make their assessments without knowing who the other panel members are), *repetitiveness* (usually two or three rounds of discussion with questions and answers) and *feedback* (each of the experts has the opportunity to see the Delphi Group's summaries).

The participants in this Delphi survey are 12, selected on a quota and voluntary basis, selected as a result of pre-defined criteria that aim at inclusiveness, ie. participation of people from all fields and levels related to the teaching of BgFD, the formation and implementation of curricula at the university level.

The steps for including Delphi survey participants are:

Step 1. Defining areas related to the promotion and teaching of BgFD.

Step 2. Forming the lists from which participants will be selected.

Step 3. Determination of participants according to the specific objective situation and timeframe, based on the principle of "first responders".

Three panels were formed, each representing a relatively homogeneous group:

1) *Expert panel* with key experts who are leading names in the field of BgFD teaching (4 people);

2) *Institutional panel* of experts who design and approve the academic curricula (4 people);

3) *Teaching panel* of specialists responsible for the implementation of physical education and sports training programs for students (4 people).

Instruments: two questionnaires (frames) for the first and second round respectively.

The study is conducted in two rounds until consensus is reached. Two questionnaires are drawn up, the second is the result of the first one. The first questionnaire is accompanied by a briefing document that informs the expert participant of the results of the quantitative survey. A summary document is drawn up at the end to all participants in the survey.

Place and time of the study

Measurements, survey and analysis were made within the first and second semester of the academic year 2018/2019 at MU-Varna. In general, the study is conducted at the sports and exercise centers at MU-Varna.

RESULTS

The purpose of this work is two-component: presenting and analyzing the collected data from the study, both from the quantitative and qualitative phase.

Results – First phase: Quantitative analysis

1.1. Descriptive analysis

Sample description – In order to perform the task, a descriptive analysis was first performed for a general description of the sample and a summary of the questions used in the survey. Sample: 184 students from MU-Varna, divided into two groups of sports and dancing BgFD (Table 1).

Each participant was included in the study after voluntarily signing an informed consent to participate. The results of the first survey show that the lowest age of students attending folk dance classes is 18 years and the oldest participant is 45 years old. The average age is 21 years.

Table 1. Description of the study sample – the divide of 2 groups – Studying Bulgarian folk dances (BgFD) marked as “BgFD-students” and studying sports (volleyball and aerobics) marked as “sport-students”.

Characteristics	BgFD-students	Sport-students			Total
		aerobics	volleyball	all	
Number	92	61	31	92	184
Gender - female number	75	61	16	77	152
Gender – male Numbers - %	17 – 18.5 %	0	15	15- 16.3%	32

The comparative analysis of the sample, divided into 2 groups - BgFD dancing and non-dancing (studying sports), shows that the groups are homogeneous in terms of representation of all specialties at the university, with both medical students predominating, since they are the highest number at the MU - Varna. In both groups, female representatives predominate, which corresponds to the real ratio in the CED-sport classes lists. The 1st and 2nd year representatives prevail (for objective reasons) because they have more physical education hours in their program. All this enables us to make a comparative analysis between the two groups - of dancers and non-dancers of BgFD.

Physical education and sports, and in particular BgFD, are part of the compulsory curriculum for first and second year students, specialties "Medicine", "Dental Medicine" and "Pharmacy", and only for first year students for all other specialties. In practice, this means that the number of 'newcomers' in the sample is significantly higher. These facts lead to a research interest in exploring students' attitudes and motivations to engage in sports and BgFD and the factors that determine them.

1.2. History of physical activity, attitudes, motivation to practice BgFD.

The physical activity culture of the students was studied prior to their admission to the university. Asked: "In the past, were they: an active athlete; actively dancing BgFD; active in sports and BgFD; sportsman / dancer from time to time; I have not practiced sports before; I have never practiced BgFD before, only 15.7% (n = 29) said they were active athletes and 37.5% (n = 69) had never played or played BgFD. The proportion of young people who "occasionally" practiced sports or BgFD is also not high - 47.8% (n = 88).

The student's lifestyle related to their motor activity was investigated by establishing the attitude of BgFD learners towards their activities. Over 2/3 (n = 69; 85%) of BgFD practitioners either "absolutely agree" or "agree" that BgFD are a way of relaxation and fun or a hobby. About 1/3 of the students perceive BHT as both a

sport (n = 45) and a dance (n = 37).

Other variables referenced in the scientific literature relevant to the formation of healthy lifestyles in young people, such as smoking, alcohol, stress levels, non-dance sports, were also tested. The results show that 36% (n = 35) of BgFD practitioners consider themselves to be more organized in their daily lives, and in more than 50% (n = 64) BgFD give a ton of work and learning. About 70% of BgFD participants are a way to cope with stress and workload. About 67% of BgFD practitioners find that BgFD make them "energetic and motivated during the day," and 46.2% feel more successful at presenting at university. To the question: "If we exclude visits to the BNT classes at MU-Varna, do you exercise?" - 56.4% answered that they do not do sports, ie. dancing is the only sporting activity of the week. Only 29% exercise 2-3 times a week, 13% exercise 3 to 5 times a week, and 2% practice some sport more than 5 times a week (Fig. 3).

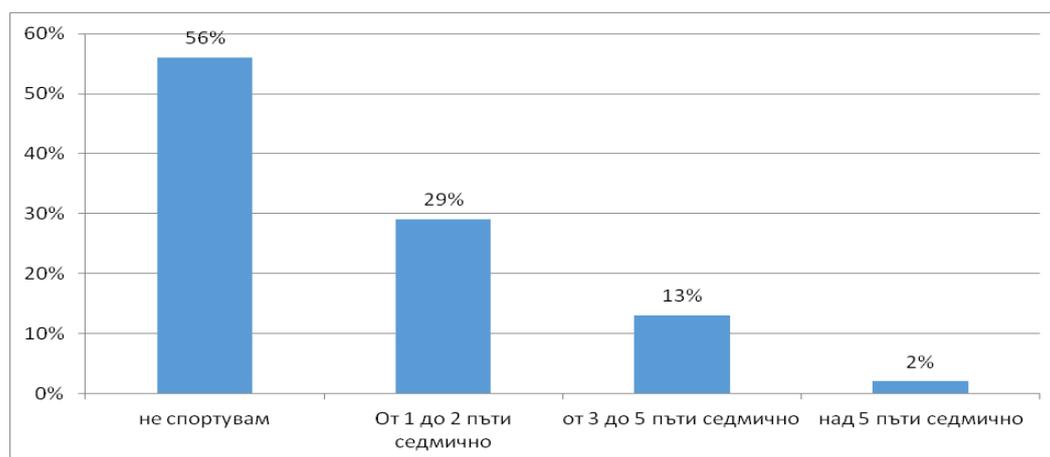


Fig 3. Physical activity of the students outside the BgFD activities
And CED sports classes

The statement "BgFD help me feel energized and motivated during the day" is supported by 73% of the participants. 26% cannot rate and only 1 student completely disagrees with this statement.

More than half of the participants in the BgFD study group (76%) are "absolutely in agreement" and "agree" that they have reduced unhealthy foods since engaging in BgFD. Over 2/3 of the participants have reduced their cigarettes (71%) and alcohol (74%) since dealing with BgFD. " BgFD help me cope with stress and

workload" - about 70% of students "strongly agree" or "agree" with this statement. A high percentage of students - 86%, report that they are making new friendships through BgFD.

Table. 4. *Mean values of the motivation scale for each item in it*

	MEAN	N
BgFD BrHT are type of sports	3,7400	184
BgFD are rather dancing than sports	3,6300	184
BgFD way of relax and enjoy	4,3700	184
BgFD are hobbi	4,2200	184
BgFD are moving	3.9900	184
BgFD old fashion	1.4500	184
BgFD nteresting	4.3000	184
BgFD boring	1.3400	184
BgFD made friendships	3.5200	184
BgFD are difficult	2.4100	184
BgFD are sports	3.6100	184
BgFD are good health	4.1300	92
BgFD are energizing/motivating	3.8600	92
BgFD help overcome stress	3.4600	92

The results of the survey show that most students identify BgFD activities as a way of relaxation and fun. They are interesting to them; they practice it as a hobby and as a kind of physical activity that helps them to improve their physical health.

According to most of the students, BgFD are exciting, help them feel energized and motivated during the day, help them cope with the stress of their workload. It is interesting to note that the number of students who consider BgFD to be a sport is greater than the number of those who define it as a dance rather than a sport. For a significant number of them, these activities are their only sporting activity of the week and are a good way to build friendships.

The smallest is the number of students for whom BgFD is difficult to learn and regards as old-fashioned and boring.

In general, 65% of those who responded to the non- BgFD study group either "absolutely agree" or "agree" that the BgFD are exciting, and 72% of the same group find the BgFD interesting. The allegations that BgFD are boring or old-fashioned are almost completely rejected - in both groups over 90% are "completely disagree" or "disagree" with the above two statements.

In summary, the results show an overall positive attitude of students towards BNT. It is interesting to note that the relative share of students who consider BgFD to be a sport is greater than the proportion of those who define it "more as a dance than as a sport".

The statistics of each element of the question, measuring students' attitudes towards BgFD, showed arithmetic mean over 3, ie. agreeing that BgFD are exciting, interesting, sports, and leading to good health, makes the dancer feel energetic and motivated, that they are a friendship and a way to combat stress. The only items/statements that had averages less than 2, i.e. disagreement with the allegations is related to the fact that students do not consider BgFD to be old-fashioned, difficult and boring.

1.3. Factors affecting students' motivation to attend BgFD classes

Various factors have been tested for a possible associative link with students' motivation to engage in BgFD. Correlation analysis was used, which in the first selection of variables - gender, age, course and specialty, did not show statistical significance for any of the variables, ie. the extent to which dance influences students' overall motivation to work is not determined by any of these factors.

Various factors have been tested for a possible associative link with students' motivation to engage in BgNT. Correlation analysis was used, which in the first selection of variables - gender, age, course and specialty, did not show statistical significance for any of the variables, ie. the extent to which dance influences students' overall motivation to work is not determined by any of these factors.

Other variables identified in the literature as having a bearing on the formation of the general motivation for work and socialization of the dancers, namely the use of cigarettes, alcohol, stress, the dance past and sports outside dance, were tested. The

results showed a weak but significant relationship between dance motivation and smoking as a habit ($r = -0.216$; $p = 0.031$). The correlation indicates that engaging with BgFD and considering BgFD as a motivating factor has a positive effect on cigarette restriction and reduction.

Surprisingly, the results show that there is no statistically significant correlation between the motivation for BgFD and the stress that the respondents think they are experiencing as students ($r = -0.093$, $p = 0.358$).

When examining the associative links between students' attitudes toward BgFD and how they influence their motivation, the results showed significant relations.

Among the students whose attitudes coincide with the stated and measured BgFD statements in the scale, correlation analysis showed significant connections, ie. increased general motivation in students who mostly think that BgFD is a type of relaxation ($r = -0.433$, $p = 0.001$), lead to good health ($r = -0.415$, $p = 0.0001$), make them feel energetic ($r = -0.436$, $p = 0.001$), create friendships ($r = -0.376$, $p = 0.001$) and find that they help with stress ($r = -0.427$, $p = 0.001$).

Weaker but significant correlations were found between BgFD attitudes as difficult ($r = 0.217$, $p = 0.03$), interesting ($r = -0.250$, $p = 0.012$), and exciting ($r = -0.277$, $p = 0, 05$) with the general motivation of the students.

The logical next step was the research need to measure the subjective health of the study participants.

1.4. Assessment of health levels and quality of life among the students.

"BgFD help improve physical and emotional health" - 78.8% of BbgFD students agree "absolutely agree" and "agree" with this statement.

One of the main objectives is to assess the change in the subjective assessment of health or quality of life, on the one hand, and on the other to compare the differences related to subjective health between the two groups - dancing BgFD and non-dancing BgFD.

Health-related quality of life is a major outcome measure in healthcare.

Herewith, it is presented as an outcome at an educational setting. In this study, the definition of quality of life is derived directly from the holistic definition of health of the World Health Organization (WHO, 1948): "Health is a state of complete physical, mental and social well-being, not just the absence of illness or disability".

Therefore, health self-assessment is measured at three levels: the physical, mental / emotional and social dimensions (Fig. 4).

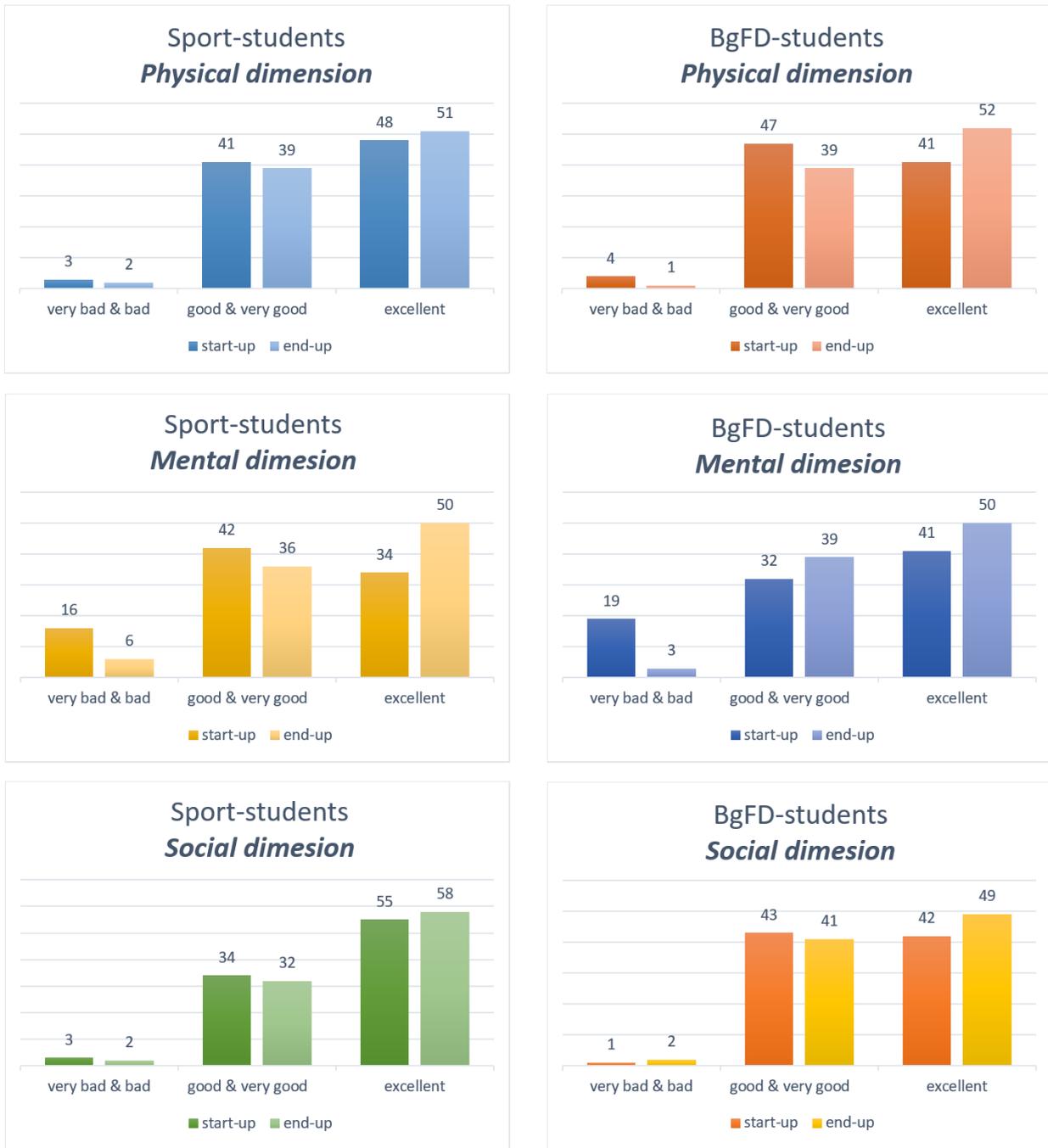
"BgFD help for better physical and emotional health" - 78.8% of BgFD-group shared this statement. Overall, all the participants reported higher subjective health levels at the end of the semester.

The subjective health is assessed in three dimensions- physical, mental and social (communication, self-realization, satisfaction from your daily activities) in five health status levels. For the purpose of the analysis the levels have been merged as follows: 1 [very bad health status] and 2 [bad health status] levels in one group; 3 [good health status] and 4 [very good health status] in another group; the "excellent" level 5 is presented separately

The self-rated health of the BgFD-students at the beginning and at the end of the semester is improving significantly in the mental dimension ($t=2.868$, $p<0.006$). There is also improvement in the physical ($t=1.246$, $p<0.216$) and social dimensions ($t=0.532$, $p<0.596$) but it is not statistically significant.

The self-reported health of the sport-students at the beginning and at the end of the semester is also improving at all dimensions. There is a statistically significant improvement in the physical ($t=2.340$, $p<0.021$) and mental dimensions ($t=2.868$, $p<0.006$) of health. The improvement in the social dimension is there ($t=1.543$, $p<0.126$) but it is not statistically significant.

There was also an opportunity for the participants to assess their health twice (at the beginning and at the end of the semester) through a "thermometer" type or a visual analogue scale. They were asked: "As a whole how do you evaluate your health if you can measure it in a continuum from 1 (the worst) to 100 (the best) possible health status?"



- BgFD - Bulgarian folk dances

Fig. 4. Numbers of participants according the reported health status levels in the two groups (BgFD-students and sport-students). The question “How do you evaluate your health status today at the following fields: physical, mental and social (communication, self-realisation, satisfaction from your daily activities)?” was included both in the start-up and end-up questionnaires.

The mean state of health recorded on the visual analogue scale of the BgFD-students was 70 out of 100 (SD±23) and 85 out of 100 (SD±21). For the sport-group the mean state of health recorded on the visual analogue scale is 68 out of 100 (SD±23),

and at the end of the semester was 85 or 100 (SD±21). These figures again show improvement of the health status and similarities in this direction between the two groups (Fig. 5).

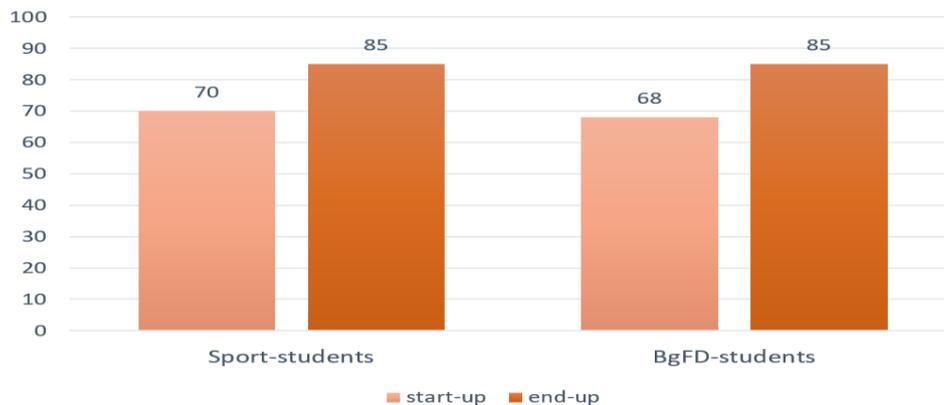


Fig. 5. Self-rating of the health status from 1 to 100 by the participants from the two groups (sport-students and BgFD-students) in the beginning and at the end of the semester.

The question: “As a whole how do you evaluate your health if you can measure it in a continuum from 1 (the worst) to 100 (the best) possible health status?” was included in the start-up and in the end-up questionnaires.

1.5. Stress levels assessment

Through a standardized questionnaire, the emotional state and stress levels of the students participating in the study were examined in the middle of the semester once. The data from the cumulative point results show that over 50% of the study participants had high levels of stress, with differences between the two groups being minimal but in favor of the dancers.

More than half of the students surveyed responded positively to the opinion “BgFD help me cope with the stress of learning load” - about 70% of students either “strongly agree” or “agree” with this statement. The fact that only less than 20% of the study participants reported lack of stress provides additional motivation for health-promotion analyzes and interventions related to emotionally charged, physiological and beautiful BgFD. Such health and enlightenment research activity is the making of anthropometric measurements in the studied population.

Such measurements should be carried out regularly on an annual basis because of their high informative value related to problems such as overweight, immobilization and the health consequences for the young body.

1.6. Anthropometric profile of the students

Regular anthropometric measurements can play the role of a forerunner of chronic diseases, which are the main cause of global burden of disease worldwide. Anthropometric measurements of the following individual characteristics for each participant were made as part of the health promotion research tasks in the presented study: weight, height, dynamic flexibility, which will be compared with the standards existing for the respective age. Body mass index (BMI) was calculated and the initial analysis showed that 59.74% of participants were obese or overweight, ie. BMI > 25.0 according to WHO standards, 2019.

The comparative analysis shows that there is a difference only in the speed of the lower and upper limb among the studying and non-studying BgFD and in favor of the BgFD-students, at $t = 4.597$; $p < 0.0001$ for upper limb velocity and $t = -4.186$; $p < 0.0001$ for upper limb velocity.

The anthropometric profile obtained, and especially the results of the BMI calculation, clearly indicate the need for locomotor activity. On the other hand, comparative anthropometric analysis shows identical results between the two groups, which is indirect evidence of the completeness of BgFD as a motor activity.

On this basis, a Delphi study was conducted that led to expert consensus on the place of the BgFD in the students' curriculum and to a national transfer of a successful academic model.

2. Results – Second phase: Qualitative analysis

Delphi study

The Delphi survey was conducted in the period April-June 2019. The invited (according to selection criteria) and responded 12 experts were divided into three groups, which formed 3 panels, each representing a relatively homogeneous group:

1) The *Expert panel* are key specialists in choreography and BgFD field (Prof Petar Angelov, Assoc. prof. Maria Kardjieva, Hristo Dimitrov – Ansamble „Bulgare“, Tanya Krumova – choreographer, long career award);

2) *Institutional panel* of experts who design and approve curricula;

3) *Teaching panel* of specialists responsible for the implementation of sports training programs for students (Assoc. Prof. Krasimir Yordanov; Diana Dimitrova; Lyuben Chobanov; Boris Yankov).

Instruments: Two questionnaires, respectively, for the first and second round, which subsequently completed the first and second round questionnaires, finally generating consensus results.

a) Results from the first round

The first round focused on the implementation of the first two tasks of the Delphi Study, namely: 1) informing/disseminating among the experts, designing and implementing the educational programs, the quantitative results of our study on the attitude towards BgFD, as well as the impact of BgFD on health and quality of life of the students. 2) Delphi participants' perspectives on the nature, cultural and social role of BgFD were examined; the impact of BgFD on health and quality of life; the role of the BgFD as an alternative to sports activities in the academic curriculum.

An expert opinion was requested on the research thesis that the teaching of BgFD at MU-Varna is a successful academic model.

In order to make the Delphi survey participants more familiar with this quantitative study, the first questionnaire is accompanied by a briefing document containing introductory definitions that place the BgFD research framework, quality of

life and concept health promotion. An article with data and analysis of the results of the first quantitative phase was presented and published.

For the first round, the questionnaire contains one open and three closed questions.

Particularly interesting from a research point of view are the opinions of the experts related to BgFD. Here are the generic answers to the question: *What do you think the BNTs are?*

- “BgFD are a specific physical activity, sport, social phenomenon, a means of discovering the authenticity of the people, a way of entertainment and emotional recharge “.
- “BgFD are a means of discovering the authenticity of the people“;
- “BgFD are a source of vitality, positive emotions“;
- “BgFD are an opportunity to socialize and develop social relationships“;
- “BgFD are art, cultural heritage“;
- “BgFD are a fun way to keep fit, exercise, emotionally and mentally recharge and lift your spirits; satisfaction“;
- „The Bulgarian folklore dance is beautiful; it brings the soul of the people, came to us from distant national origin and combined Thracian grace, Slavic softness and pro-Bulgarian fervor. It preserves the roots of our traditions. Bulgarian dance is difficult to perform. She dances all over the body, complex coordination between arms and legs, plastic ornamentation. Folk dance is a joy of life, a source of strength and emotion, a phenomenon in the world cultural tradition. Folklore is a means of communication, but it is also a means of preserving national identity and memory, as the people say “.
- “ BgFD are a reflection of the lifestyle, culture and traditions of our people. Through them, people reveal their spirituality and emotion. Coupled with the unique musical rhythms, the fruit of the folk genius, they fill the dancer with unsuspecting feelings taken from the depths of his soul“.

- „For some, dance is life, for others it is part of tradition, for others it is sport, for the artist it is art. It is actually an experience - physical, mental, psychological. When we talk about Bulgarian dance, it is an emotional charge - conscious / unconscious, one is charging. The Bulgarian dance in its essence has code messages that have not yet been studied exactly, which is the energy of the BgFD“.

- “ BgFDs are passion and love, dedication, a means of dissolution, they build a value system, respect and continuity to the traditions and culture of our identity and root. In the above definitions, I would add that they are one of the wonders of the world“.

- „First of all, dance is an art. It is a special state of mind. Dance is not just physical activity. Dance is not a sport. It is a spiritual experience, a conduit of energy, self-expression, sexual attraction and a social phenomenon. Dance is a mirror of the temperament and character of the individual“.

All participants united and supported the following three statements, which were asked in the survey as three closed questions:

- "Practicing BgFD improves health and quality of life".
- “ BgFDs are an equivalent alternative to sports activities in the students' curriculum“.
- „ The way teaching of BgFD at MU-Varna is a successful academic model“.

At the end of the questionnaire, additional comments were made regarding the impact of BgFD on health and quality of life. Here is a summary of the comments made by the participants (this was also included in the text of the second questionnaire):

- “BgFDs are a national treasure. They are unique in their rhythm and cannot leave anyone indifferent. BgFD make me proud to be Bulgarian“.

- „Studying of BgFD the students get to know the Bulgarian spirit and this is the most direct way to pass on our culture to the foreign students; they join and work in a team with their Bulgarian colleagues. BgFD are a social phenomenon because

they bridge the boundaries between students of different nationalities. At the same time, BgFD improve the physical condition of the students, positively influence their mental and emotional stability, help them to relieve stress in their daily lives, enhance their quality of life. I strongly support the study of BgFD and their inclusion in the curricula! “

- “BgFD have a beneficial effect on the tone and general condition of the body; BNTs are a positive emotion and energy and have a positive effect on the spirit BgFD“;
- „We associate BgFD with stress relief, burnout prevention and depression; improving metabolism; maintaining normal body weight; improved physical health; improved coordination; control of muscle movements; mind training; improved concentration; improving blood circulation; cardio-protective effect; muscle strengthening; positive effect on bone density, reducing the risk of osteoporosis“.

Extremely interesting are the additional pages written by the Delphi experts who share the essence of their years of extensive experience:

- “In folk psychology, it was believed that BgFD had healing properties. A striking example of this is Kalushari - a ritual dance performed by men who, with specific movements and rituals of the BgFD, fight the disease of the patient. In the many articles I have read about this ritual, I have not found the exact answer to the mysticism of how the miracle happens, but there are many examples of well-healed people, but it cannot be scientifically explained. Phenomenon! In my practice, I have repeatedly fallen into a melancholy state (due to side factors), I have been reluctant to enter the dance hall, and I have even happened on stage. But after the first 32 strokes of the music, the first few steps and movements, I feel that the obsessive thoughts are gone, my head is empty, only the music sounds and the subsequent movements and strokes decrease. It is unknown how, most of all, inexplicably to me, my body becomes light and flexible, the weight disappears. And when I stop dancing, I am another, new person, full of energy, ready to conquer peaks, calm and forgetting problems for a while. This feeling and experience has been shared by many of my other fellow

dancers. In our conversations with each other, we joked that we were machines for the production of adrenaline and endorphins, but this is only a joke, scientists can say what it is that makes us feel that way. The workload of dancers can be compared to that of active sports. Therefore, my opinion is that BgFD can be an equal alternative to sports activities in the students' curriculum. "

- “Dance is magic and health, but in synthesis with music and folk song is unique. It is proven that like our rhythms there is no place in the world. Talking to one of my BgFD teachers, we discussed the topic that music has a great influence on a person's mentality. There are no such rhythms worldwide (except in 1 or 2 African tribes). When I was mentally and physically stressed, I needed to hear a song like "Ibish Aga". These are just of examples of the benefits of BgFD and their impact on people's physical and mental health. BgFD are a responsibility and a discipline, they create lasting relationships and good social contacts, they are self-organization, they are friendships and dedication, they are big heart and love, they are dancing hand in hand."

- “BgFD influence holistically the human body. After dancing BgFD, then I feel great - mentally unloaded, emotionally charged. While dancing BgFD, the eyes are involved to enjoy the beautiful and complex movements; the hearing is involved to enjoy the unique variety of folk music. Muscles load normally and harmoniously. Footsteps are activated. The legs of the third choir are warming. People who dance to BgFD become more tolerant and more sociable. BgFD are my life. I keep dancing. My graduates say the dances are "sweet fatigue."

- “The observation I will share is not scientific but it is a fact. It is the result of many years of practice and is shared by fellow choreographers with whom we commented. My observation shows that there are no oncological diseases in actively dancing people (I mean people who dance 2-3 times a week BgFD). There are isolated cases of cancer in the history of choreography, which are rather exceptions. During dancing detoxification of the body is performed and this is associated with many positive emotions and experiences. Dance is the most powerful antidepressant. In

practice, a depressed dancer cannot be encountered. In all likelihood, this detoxification of the body comes from the vibration of the body when dancing BgFD (shaking characteristic). In the US, to achieve this effect, they jump on small trampolines, but could hardly replace the emotion of the dance. These are just practice observations, but it is a good idea to initiate scientific research to establish the plausibility of such observation. Several times - 6-7, I had to dance sick on stage (high fever, cough, runny nose, etc.). With great effort I went out to the audience and performed my dance. The next day there is no memory of the disease. This is categorical and not the result of chance. This fact has been shared by other colleagues of mine and it is also worth exploring. The dances of our people are extremely useful for human health, both as prevention and as a cure. From now on, scientists have a say in exploring this unique phenomenon and contributing to the good health of many around the world. "

b) Results from the Second round

The second round questionnaire provided feedback to the participants in order to gain consensus and to lead to an expert consensus on the 'reserved' place and the 'special' role of BgFD in the curriculum of all higher education institutions in Bulgaria as an equal to sports and alternative physical activities. The summary of the results of the first round was fully supported. The respondents approved the general opinion that BgFD should be studied and included in the curriculum of all higher education institutions in Bulgaria as an equal alternative to sports activities.

c) Consensus – summary document to the experts

Today, the WHO recommends physical activity, such as BgFD, as the most effective strategy for the prevention of chronic diseases. WHO identifies specific barriers to active physical activity, including: inaccessibility of sports facilities, expensive services, insufficient health literacy. In this direction, MU-Varna develops health promotion activities facilitating the physical activity among students, faculty and staff at MU-Varna. A supportive step in this direction is the opportunity to study BgFD from the students at MU-Varna. The Final Summary Consensus is grateful to

the Delphi participants for their views and support for our efforts to explore the role of BgFD as a discipline and their impact on students' health. The main task of the final document is to provide a summary of the deliverables, respecting the principle of feedback from participants. This Delphi study involved 12 experts whose views are being summarized. The idea was to use the consensus Delphi technique to be useful for the participants in the study, who are key figures in the life of the academic community of MU-Varna and leading experts in the field of choreography and BgFD.

d) Summary of the Delphi study results

During the Delphi study, the three principal advantages of the Delphi method as a consensus technique were respected, which also ensured the reliability of this qualitative study. Anonymity was guaranteed during both rounds, with surveys being anonymous and conducted individually. Repeatability was respected as the study was conducted in two rounds and feedback was provided together with the submission of the second questionnaire and finally with a consensus document in which each of the experts could see a summary of Delphi experts views. The responsibility that the expert participants displayed could also be included as a key factor in ensuring the reliability of the study. People who accepted to participate in the study, despite their busy program, showed responsibility and loyalty to the study, which shows their motivation to work to improve the quality of university education and student health. In addition, the inclusion of similar or repeated questions and possible answers in the first and second rounds (a technique used in other Delphi studies) increased the reliability of the study.

We believe that this scientific research has the necessary potential to present scientific evidence that would lead to successful health promotion and educational solutions to the problems of physical activity activity, addressing high levels of stress through primary disease prevention among young people in higher education, which is also supported by the following discussion of the results.

DISCUSSION

Since ancient times, physicians, including the "the Father of Western medicine" Hippocrates (400 years BC), believe that physical activity supports health. Today, it has been proven that motor activity is vital for the prevention of chronic diseases and premature death. We now have strong scientific evidence for the role of regular physical activity in the primary and secondary prevention of many chronic conditions, such as cardiovascular disease, diabetes, cancer, depression and osteoporosis. In addition, a linear relationship between the frequency of physical activity and health is demonstrated, which is increasing the frequency of physical activities leads to a further improvement in health.

The results of the study showed that students' motivation to practice BgFD in physical education and sports classes is high. From the sports-group, 65% of those who responded "absolutely agree" or "agree" that BgFD are exciting, and 72% of the same group find the BgFD interesting. The allegations that BgFD are boring or old-fashioned are almost completely rejected - in both groups over 90% are "completely disagree" or "disagree" with the above two statements. In summary, the results show an overall positive attitude of students towards BgFD.

The high percentage of students in the sample who have never do sports or practiced BgFD outside their physical activity classes indicates that sports, and in particularly BgFD, are not only an CED but also a way of physical education for students. Obviously for many of them, BgFD activities are also a type of development of their health literacy, and this is important not only for their health but also for their professional realization as health professionals.

Lifestyle is the most influential health determinant. Students report that for many of them, studying BgFD is the only weekly physical activity, which underlines the role of BgFD as early health promotion intervention to prevent obesity and stress.

From the results we understand that students consider BgFD as interesting, they are practiced as a hobby and as a kind of physical activity that help to improve their

physical, mental and social health. According to most of the students, BgFD are exciting, help them feel energized and motivated during the day, help them cope with the stress and their heavy workload. It is interesting to note that the proportion of students who consider BgFD to be a sport is greater than the proportion of those who consider it "more like a dance than a sport". For a significant number of them, these activities are their only weekly physical activity and BgFD are a good way to build friendships.

The study found that dancing is a major physical activity for students because they do not exercise outside the university (56% of the participants). This underscores their importance and makes BgFD presence in the curriculum an option. Tracking and improving the quality of life is a major objective of public health. It is an important subjective indicator of the success of health promotion interventions, as in this study are the BgFD hours for students at MU-Varna. The descriptive analysis with frequency representation of the scale for the subjective assessment of the influence and importance of BgFD for the students who choose the as CEM leads to the conclusion that overall BgFD improve the quality of life related to physical, mental and social health (communication, teamwork, organization) of those who study BgFD.

Therefore, BgFD is an equivalent physical activity to sports such as aerobics and volleyball. Separate scale items indicate that BgFD dancers are united around the statements that different levels of subjective health are higher after three months of BgFD exercise.

"BgFD help me cope with stress and workload" - about 70% of students "strongly agree" or "agree" with this statement. The fact that only less than 20% of the study participants reported lack of stress provides additional motivation for health promotion analyzes and interventions related to emotionally charging, physiological and beautiful BgFD.

The analysis made so far gives a strong basis for the promotion of the academic model of teaching BgFD at the Medical University of Varna among all higher education institutions in Bulgaria.

For the first time in Bulgaria, data on the impact of BgFD on the health and quality of life of students are being obtained. The hypothesis that BgFD are equivalent as a physical activity to sports activities is confirmed. Additionally BgFD practicing as well as sports activities, have a beneficial effect on the organization of daily life, on the levels of stress, on the overall health. On the other hand, the benefits of the study itself are not only from the point of view of health but also of sports education.

Заниманието с БгНТ, като учебна дисциплина, спомага за намаляване на рисковете от затлъстяване и от леки депресии сред студентите в университета, които имат натоварено ежедневие и заседнал начин на живот. БгНТ имат отношение и към изграждане на професионалното поведение на практикуващите ги студенти, като спомагат да се преодоляват различията, да се създават запознанства и трайни приятелства, все качества необходими за успешна реализация на бъдещите здравни професионалисти. Studying BgFD as a CED, helps reduce the risks of obesity and mild depression among university students who have busy daily and sedentary lifestyles. BgFD contribute to the building of the professional behavior in the future, helping to bridge differences, to create friendships, all of the qualities necessary for the successful realization of future healthcare professionals.

In MU-Varna only physical education classes are conducted with mixed groups and the students are from different specialties of Bulgarian and English language training majors. This fact helps them get to know each other and create new friendships. Therefore, we can say that BgFD unites young people irrespective of gender, age, specialty, religion and culture.

A high percentage of students - 86%, report that they are making new friendships through BgFD. It can be stated that social capital is created (trust, shared norms, openness, common values), which is a scientifically proven prerequisite for the development and sustainability of a community, such as the students of MU-Varna.

Enabling students to practice BgFD is in fact implementation of a prevention program in the early stages of human life, which is a strategic factor for increasing life

expectancy, disease-free living, and more successful careers. The study of BgFD is a health promotion intervention that should be implemented in all possible communities and institutions.

On this basis, a Delphi study was conducted which led to expert consensus on the place of BgFD in the students' curriculum and to a national transfer of a successful academic model.

BgFD are an ambassador of the Bulgarian culture. Many of the students at MU-Varna are foreigners and come from abroad. The training at MU-Varna gives them knowledge and professional competences, and giving the opportunity to study BgFD enriches their culture and is part of their personal growth.

As a future step for the integration of students from the English language program into the Bulgarian culture, the English-speaking students could be included in the representative dance ensemble of the University. In the long run, the goals are to create a BgFD-formation comprised only from the representatives of the international students' community.

CONCLUSIONS

What do we learn from this study? How can the results be applied at public health and academic education levels?

The study was conducted in the context of missing related studies in Bulgaria. Not only a historical and ethnographic literature review of the BgFD was made, but also a terminological clarification of concepts from the field of health promotion and quality of life.

Conclusions from the qualitative study

The “statistical portrait” of the students’ community at MU-Varna who practice BgFD or sports, as a CED, is not perfect, but it is an important “mirror”, which shows facts and proves that the research is going in the right scientific and applied direction.

BgFD are deeply "encoded" in Bulgarian culture and are part of the national identity. BgFD combine the terms "physical culture" and "physical activity" into one, which makes them an increasingly desirable subject for Bulgarian students at the university. The analysis of the results proves that BgFD, with their unique movements, combined with folk music, are attractive not only as an effective physical activity, but also as a means of communication and fun.

Key messages as a derivative of the project:

- BgFD at MU-Varna are practiced mainly by students in first and second year, but they are from different specialties. This makes the activities equally desired by all students from all specialties of the university. Students have unhealthy habits such as smoking, alcohol use and reduced physical activity. Exercising BgFD has a beneficial effect and leads to a reduction in smoking habits while increasing physical activity.

- Only 15.7% of the survey participants reported that they were active athletes in the past, and 37.5% had never do sports or practiced BgFD. The proportion of young people who have occasionally practiced sports or BgFD is not high - 47.8%.

- For 56.4% of BgFD-students, BgFD are the only sporting activity of the week.

- Seven are the main elements / statements that determine and influence students' motivation for engaging in BgFD. These are: students' attitudes that BgFD are enhancing new friendships, reducing stress, and have been identified as interesting, exciting, helping to improve health, not “out of fashion”.

- BgFD, despite a compulsory choice within the hours for physical education, is not perceived by students as a sport. They define BgFD as a hobby, dance and a way to relax.

- BgFD have a beneficial effect not only on the students' physical culture, but also on their emotional stamina and lifestyle. Students studying BgFD defined them as invigorating and energetic. Studying BgFD is a protective health determinant that leads to a reduction in bad habits such as smoking, unhealthy eating and drinking. For example, over half of the participants in the BgFD study group - 76% "absolutely agree" and "agree" that they have reduced junk food since engaging in BgFD. Over 2/3 of the participants have reduced their smoking (71%) and alcohol (74%) since dancing BgFD. Statistical analysis shows a weak but significant relationship between dance motivation and smoking as a habit ($r = -0.216$, $p = 0.031$).

- "BgFD help improve physical and emotional health" - 78.8% of BbgFD students agree "absolutely agree" and "agree" with this statement.

- Self-assessment of health or quality of life is measured at three levels: the physical, mental / emotional and social dimensions. An intragroup analysis showed a rise in mental health levels at the beginning and end of the semester at the BgFD dancers ($t = 2.868$, $p < 0.006$). There was a difference in the improvement of subjective assessment at the physical ($t = 1.246$, $p < 0.216$) and social ($t = 0.532$, $p < 0.596$) level, but it was not statistically significant.

- The subjective assessment of the health of non-dancing BgFD at the beginning and at the end of the semester showed an increase in the levels of physical ($t = 2.340$, $p < 0.021$) and mental ($t = 2.868$, $p < 0.006$) health. There was a difference in the improvement of subjective assessment at the social level, but it was not statistically significant ($t = 1.543$, $p < 0.126$). There were no statistically significant differences

between the health status of the two groups – BgFD- group and sports-group.

- The mean state of health recorded on the visual analogue scale of the BgFD-students was 70 out of 100 (SD±23) and 85 out of 100 (SD±21). For the sport-group the mean state of health recorded on the visual analogue scale is 68 out of 100 (SD±23), and at the end of the semester was 85 or 100 (SD±21).

- The one-off measuring with a standardized questionnaire assessing stress levels revealed that over 50% of study participants had high levels of stress, with differences between the two groups being minimal but in favor of BgFD-students. The fact that only less than 20% of the study participants reported lack of stress provides additional motivation for health promotion analyzes and interventions related to emotionally charging, physiological and beautiful BgFD.

- The anthropometric measurements showed that 59.74% of the participants were obese or overweight, ie. BMI > 25.0, according to WHO standards. The anthropometric profile obtained, especially the results of BMI calculation, clearly show the need for more physical activity among students.

- The comparative inter-group analysis of anthropometric indicators shows that there is a difference only in the speed of the lower and upper limb among the BgFD-group and sports-group, in favor of the BgFD-group, at $t = 4.597$ and $p < 0.0001$ for the speed of the upper limbs, and $t = - 4.186$ and $p < 0.0001$ for upper limb velocity. BgFD could be equivalent to sports physical activity.

Conclusions from the qualitative study

The purpose of the qualitative study was to settle the position of the experts from higher education and choreography regarding nature, cultural and social role of BgFD; about the influence of BgFD on health and quality of life; regarding the of BgFD as an alternative to sports activities in the students' curriculum. An expert opinion was sought regarding the research thesis that the teaching of BgFD at MU-Varna is a successful and sustainable academic model.

The conclusions are that the Delphi study participants, from their position as experts, understand and accept the holistic nature of BgFD and are advocates (12 of 12 participants) for the idea that BgFD should be studied and included in the university curriculum to all higher education institutions in Bulgaria as an equivalent alternative to sports activities.

In summary, consensus was obtained in three directions:

- Practicing BgFD improves health and quality of life.
- BgFD have a “ reserved” place and a special role in the university curriculum in Bulgaria as an equivalent alternative to sports activities in the physical education classes.
- Teaching of BgFD at MU-Varna is a successful academic model.

In conclusion, Delphi-type research is a reliable and creative method for exploring ideas and is a practical research way for conducting research among experts aimed at reaching consensus on various issues affecting community life.

RECOMMENDATIONS

Health is a positive concept. There is a growing interest among young people in studying BgFD. This study is conducted at the context of health promotion because of the need to focus on community action and the need for institutional support. Individual change in health behavior must be supported by an environment that provides social support and mutual assistance. In fulfillment of the dissertation tasks, on the basis of the received data and analyzes from the present research, recommendations were made at the educational and health promotional level, with the aim of sustainable transfer of a successful academic model.

Physical activity is a key component of a healthy lifestyle that significantly reduces the risk of most chronic illnesses, supports good mental health and prolongs

years of good health. For adult individuals, the WHO recommends 150 minutes of moderate physical activity or 75 minutes of intense physical activity per week or equivalent combination. Regular BgFD practice could meet this standard and thus ensure healthy physical activity for everyone.

WHO identifies specific barriers to active physical activity, including inaccessibility of sports facilities, expensive services, and insufficient health literacy. In this direction, MU-Varna develops health promotion activities that facilitate the physical activity among students, teachers and employees. The opportunity for BgFD is a part of the institutional support for more opportunities related to the physical activity of the young people.

The following recommendations were generated as a result of the study and analysis of the survey data:

The proposed model for studying BgFD is recommended to all the academic curriculums in Bulgaria.

The research focus on the benefits of practicing BgFD is an important part of building the health literacy of the younger generations. The results of the study prove high levels of stress and a high proportion of overweight among young people. These facts support institutional efforts to motivate students to exercise, including studying BgFD, which are a fun and effective way of physical activity.

Improving community health requires the attention and support of many actors (policy makers, managers, sports, educators, student and academic communities). Therefore, it is important to transfer knowledge and partnership from science to practice and vice versa. An example and positive effort in this direction is the present study.

CONTRIBUTIONS

The contribution of public health research lies first and foremost in its social role and all the improvements and changes with which it affects population and individual health and quality of life.

ORIGINAL CONTRIBUTIONS

1. Nationally, for the first time are gathered together the concepts of “health promotion”, “quality of life”, “health determinants” and ‘community’ in order to investigate the influence of the BgFD on health.

2. For the first time in Bulgaria, an audiovisual study guide related with studying BgFD at an university level is being created, which is an innovative way of teaching healthy physical activity through BgFD.

APPLIED CONTRIBUTIONS

1. The application of mix-methods design is a modern approach in the field of public health research. This study shows that when used in combination with quantitative and qualitative methods, they complement each other and allow for a comprehensive analysis.

2. This study provides a theoretical model for conducting a Delphi Expert Survey that was used in this study and can be applied when consensus is sought on various issues affecting community life.

3. Innovative audio-visual educational tool was prepared “Guide for studying BgFD” was developed in order to enhance healthy PA among the students. It is both in Bulgarian and English and comprises some of the most popular BgFD, and the following messages:

- BgFD as physical activity are accessible for practice and could be an integral part of our daily lives.
- BgFD are beneficial to our mental health, physical and social functioning.

- Being physically active at a younger age and continuing into later years contributes to an active aging, better quality of life and health.
- Students who study BgFD have the opportunity to maintain their health, maintain lower levels of stress, be more organized in their daily lives, including daily curriculum management.

Studying of BgFD at MU-Varna is an effective way of overcoming differences in the multi-cultural and international students' community. BgFD are not only a unique social phenomenon but also a health promotion methodology.

The dissertation "keeps" the special place of the BgFD in the academic curriculum.

PUBLICATIONS REATED WITH THE DISSERTATION

1. **J. Videnova**, S.P. Nikolova, D. Vankova, 2019. The influence of the Bulgarian folk dances on students' health and quality of life. A study protocol from Medical University of Varna, Bulgaria, Proceedings of INTED2019 Conference 11th-13th March 2019, Valencia, Spain, pp. 0229-0234, ISBN: 978-84-09-08619-1
2. **Виденова, Ж.**, Павлова, С., Ванкова, Д., 2019. Изследване на нагласите и влияние на българските народни танци върху здравето и качеството на живот на студентите от Медицински университет – Варна, Варненски Медицински Форум, 2019'1, pp. 89-96.
3. **Jh. Videnova**, S.P. Nikolova, D. Vankova, 2019. Studying the influence of the bulgarian folk dances on students' overall health, Proceedings of EDULEARN19 Conference 1st-3rd July 2019, Palma, Mallorca, Spain, ISBN: 978-84-09-12031-4, pp. 0120- 0126.

SCIENTIFIC CONFERENCE PARTICIPATIONS RELATED WITH THE DISSERTATION

1. 5th Jubilee festival „ Sport, sea and health“, 16–18 May 2019, with a poster.
2. Scientific conference „ Science for the Society“, 25 October 2019, Bulgarian Union of Scientists, with a report “Bulgarian Folk Dances a cultural heritage and research territory”.