

YOGA KNOWLEDGE IN ADOLESCENT STUDENTS AND THEIR PERSPECTIVE ON ITS INCLUSION IN PHYSICAL EDUCATION

CONOCIMIENTO DEL YOGA EN ALUMNADO ADOLESCENTE Y SU PERSPECTIVA SOBRE SU INCLUSIÓN EN LA EDUCACIÓN FÍSICA

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ABSTRACT

Yoga has proven to be an effective exercise to prevent physical and mental illnesses from the early stages of growth, thus improving the health of children and adolescents, and, therefore, the health of adults. This study aimed to find out the degree of judgment and understanding by adolescent students about the practice of yoga, as well as their perspective on the inclusion of yoga in education. An anonymous survey was conducted on 269 participants in different institutes in Andalusia (Spain). The knowledge on the part of the adolescent student students about yoga is very limited. However, the students considered the practice of yoga to be relevant, either as an optional or curricular subject, so that, despite the lack of knowledge of the adolescent students about yoga in general, there was a degree of awareness in favor of this activity in improving education.

KEY WORDS: yoga, physical education, adolescents, education

RESUMEN

El yoga ha demostrado ser un ejercicio efectivo para evitar enfermedades físicas y mentales desde las primeras etapas del crecimiento, mejorando, por tanto, la salud de los niños y adolescentes, y, por ende, la salud del adulto. Este estudio tuvo como objetivo conocer el grado de juicio y comprensión por parte de alumnado adolescente sobre la práctica del yoga, así como la perspectiva de estos, sobre la inclusión del yoga en la educación. Se realizó una encuesta anónima a 269 participantes en diferentes institutos de Andalucía (España). El conocimiento por parte de los alumnos adolescentes estudiantes sobre el yoga es muy limitado. Sin embargo, el alumnado consideró relevante la práctica del yoga bien como asignatura optativa o curricular, por lo que, aún el desconocimiento del alumnado adolescente sobre el yoga en general, existió un grado de consciencia en favor de esta actividad en la mejora de la educación.

PALABRAS CLAVE: yoga, educación física, adolescentes, educación

INTRODUCTION

In recent decades, a conspicuous interest has been shown by younger researchers in introducing and using the practice of yoga in educational institutions (1). This practice is conceived as an innovative and effective method capable of developing in children and adolescents certain essential psychological and physical capacities when facing the diversities of daily life: managing emotions, concentration capacity, strengthening physical health, behavioral skills, among others (2). Yoga has been described as an appropriate exercise for improving physical health, with extensive physiological and physical benefits derived from its practice, such as improving body composition, reducing blood pressure and heart rate, modulating the autonomic nervous system, as well as an improvement in the physical capacities of muscular strength, cardiorespiratory capacity, flexibility, balance and coordination (3-5). Likewise, yoga has been conceived as an advantageous vehicle to avoid certain physical and mental disorders and illnesses from the early stages of growth (6).

According to global data on fitness trends for 2022, yoga has been ranked 15th, above activities such as mobile training applications, remote online personal training, even collective exercise groups. (7).

As is well known, childhood and adolescence are two vital periods that solidly determine all the future possibilities of people. In childhood, biological, psychological and social aspects make up the pillars of human development. Children grow physically, develop their social well-being, learn, bond with other children through games, establish their first emotions, begin to play sports, experiment with music, among others. Thus, it is understood that the construction of personality and identity is born in the childhood period (8). However, during the adolescence stage, not only the aforementioned aspects are formed, but it is a fundamental period in which certain diseases and disorders that are crucial to life

can appear. Among these, phobias and social disorders stand out, sometimes produced by the abuse of social networks, computers and mobile phones, conduct disorders (9). Bad eating behaviors that lead to eating disorders such as anorexia and bulimia, mental disorders such as depression, dysthymia, anxiety, addictions, and one of the most frequent disorders, attention deficit hyperactivity disorder. Therefore, the growth stages are key periods in establishing healthy behavior patterns to avoid unhealthy habits that could have a negative impact on the future health of adults (10,11).

In this way, yoga is presented as a direct alternative, a solution to counteract these anomalies. It has been proven that through its practice advantageous effects on emotions can be obtained, social stress is radically reduced and certain symptoms associated with the aforementioned attention deficit hyperactivity disorder are improved (12). Moreover, the majority of yoga studies show the effects on quality of life, good neuromuscular, cardiopulmonary and musculoskeletal training and, of course, psychological improvements in the adolescent stage (6). The effects of mindfulness in adolescence are fundamental in both the physical and psychological aspects. It also reduces stress, relieves anxiety and, among others, leads to psychological well-being and pain control (13,14). Nowadays, there are educational mobile applications based on mindfulness that can help achieve benefits derived from its practice (15).

The yoga inclusion in childhood and adolescence provides vital benefits of various kinds (16). Mental well-being, good behavior and health are some of the most relevant issues addressed in schools where yoga has been included (17). Similarly, an educational system that includes yoga provides students with remarkable emotional self-regulation, improves the mind-body connection, and develops physical abilities (18). The direct consequences of these transversal competences in education lead to improvements in behavior, mental state, health and school performance (18).

In the adolescent stage, the development of personality and mind are considered one of the most relevant psychological factors, since during this period the transcendence between childhood and adulthood occurs (19). It is a vital stage where control of the mind and actions have a direct impact on the future of individuals. Accordingly, yoga is one of the most recommended exercises in the development of personality and self-control of the mind functions (20). The material advances that our society is currently experiencing do not lead to prolonged well-being but rather to momentary pleasure that excessively leads to vice, anxiety, depression, among others. Thus, the yoga inclusion in the adolescent environment not only helps to shape the mind and develop the senses, it would surely propagate a better world, less violent and, above all, more aware of the acts and the connection with its context.

Despite its plausible and proven benefits, there is no evidence on the knowledge that children or adolescents have about yoga. Therefore, this study

had the objective of knowing the degree of judgment and understanding on Andalusian (Spain) students of Compulsory Secondary Education (ESO; by its acronym in Spanish) and high school about the practice of yoga, as well as their perspective on the yoga inclusion in education.

MATERIAL AND METHODS

Design and participants

An anonymous descriptive study was carried out in 269 adolescent students of ESO and high school.

For the selection of the sample, contact was made with the management teams of the public centers and those who agreed were offered voluntary participation in the study to all ESO and high school students. For this study, adolescents between the ages of 13 and 17 belonging to public education in the autonomous community of Andalusia (Spain) were selected. Participants were selected from all the province capitals of Andalusia and the most rural areas were also taken into account.

Because sensitive health data was not collected, a favorable report from an ethics committee was not required in accordance with the Declaration of Helsinki (21).

Evaluation of the knowledge of yoga and the perspective of the students on its inclusion in education

A random and anonymous survey was carried out, designed by the researchers themselves and advised in its preparation by experts in yoga (1), with the aim of evaluating the knowledge of the theory and practice of yoga, based on the participants opinions.

First, information on the age and course of the participants was obtained. Subsequently, the survey was divided into three sections: 1) Knowledge of yoga (questions 1-4).; 2) Functions of yoga in the adolescent stage (questions 5-10).; 3) The importance of yoga in music, dance and Olympic sports such as rhythmic gymnastics (questions 11 and 12).; 4) Opinion on the need for inclusion in education (questions 13 and 14).

The survey consisted of 13 eligible closed-ended questions: 1) What is yoga?; 2) Where is it from?; 3) When did yoga originate?; 4) What is an asana?; 5) Yoga is for...; 6) They practice yoga alone...; 7) Yoga shapes the mind...; 8) Yoga is a physical, mental and spiritual practice; 9) Do you think that practicing yoga would help you with your studies?; 10) Do you think that the practice of yoga would help to build a better world?; 11) If you play an musical instrument, can yoga help you with this? 12); If you like rhythmic gymnastics or dance, I think yoga...; 13) Would

you like yoga to be a subject in your institute?; 14) Do you think that yoga can be a way of inclusion?

Statistical analysis

Descriptive statistics (mean and standard deviation) were calculated using the IBM SPSS Statistics v.24.0 software (SPSS Inc., Chicago, IL, USA). Significance was calculated using the chi-square test to determine the validity or degree of difference in the responses, with the level of statistical significance established for this study at $p \leq 0.05$.

RESULTS

Information was collected from 269 adolescents (15 ± 2 years).

Yoga knowledge

The percentage of success for questions 1, 2, 3 and 4 was collected in Table 1.

Table 1. Validity of the answers to the questions about the knowledge of yoga: 1) What is yoga?; 2) Where is it from?; 3) When did yoga originate?; 4) What is an asana?

Variables	Correct answer (%)	Incorrect answer (%)	<i>p-value</i>
Question 1	14.1	85.9	<0.05
Question 2	74	26	<0.05
Question 3	49.4	50.6	0.714
Question 4	54.6	45.4	0.471

Functions of yoga in the adolescent stage

The 98.5% of the participants answered that yoga is for “men and women”, 1.5% answered for “women” ($p < 0.05$).

The 94.4% claimed that yoga can be practiced by “everyone regardless of age”, while, the 6% responding “adults” ($p < 0.05$).

About question 7 “does yoga shape the mind?” 65.4% answered affirmative, 31.2% proposed “maybe”, while only 3.4% responded that “it does not influence the mind” ($p < 0.05$).

The 94.8% answered that “yoga is a physical, mental and spiritual practice” ($p < 0.05$).

About the help of yoga to study, the 50.6% thought that it would help them to concentrate better, 26.4% claimed that it would serve as a relaxation tool before an exam, while 23% said that it would not help them ($p < 0.05$).

Only 26% of the participants thought that “yoga can help build a better world”, 56.1% answered “maybe” and 17.8% answered “no” ($p < 0.05$).

The importance of yoga in music, dance and Olympic Sports such as rhythmic gymnastics

The 66% of the students thought that yoga practice helps, among other, to enhance lung capacity, to relax muscles after intense musical instrument classes, and that it promotes concentration in the moments before a performance and also improves the manual capacity of musical instruments such as the piano, the guitar or the violin.

The students who in this case practiced rhythmic gymnastics and dance stated that yoga would help to be more graceful and flexible (62.7%) and to improve flexibility and the execution of certain movements (41.5%).

Opinion for yoga inclusion in education

The 83.1% considered the possibility of yoga relevant, either as an elective or curricular subject. The 42.8% considered yoga as a way of effective inclusion in the circle of students in the face of adaptation problems in the classroom, absenteeism and physical and psychological harassment to which students submit to their own classmates (Figure 1).

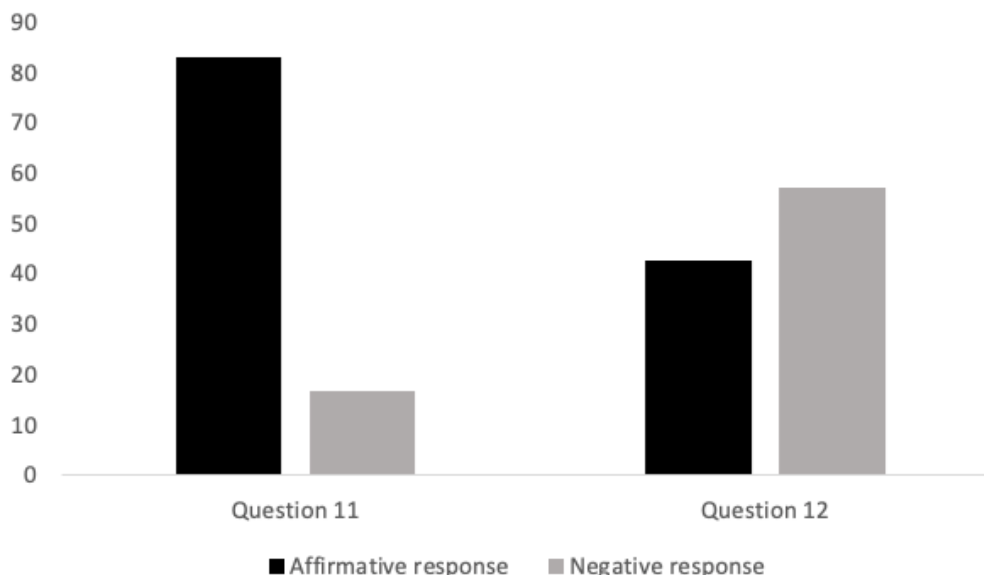


Figure 1. Percentage of affirmative and negative responses from students about their position for yoga to be a subject (Question 11) and thinking about yoga as a mode of inclusion (Question 12)

DISCUSSION

From the perspective of public education, according to the data of this study, adolescents are not fully aware of the originality and effectiveness of yoga. Generally, knowledge about yogic exercise among adolescents is vague and confusing. These are not aware of its origin and healthy benefits that are provided through its practice, especially in this stage of growth.

To date, there is no known study that has addressed, from the perspective of this study, the degree of judgment, understanding and knowledge of yoga in the adolescent population, not even in the adult population. Despite the fact that there are a large number of practitioners throughout the world (22), yoga continues to be unknown in society, at least in the Spanish society, and the psychological and physical benefits that can be obtained are not yet aware. in this practice. In fact, yoga is normally included as one more session in gyms and wellness centers, along with other aerobic activities, such as Body Pump, Cycling or Zumba. This is usually conceived as an important session to end the sports day and relax the muscles. In this sense, all this shoddy perception about the exercise of yoga is transferred, as it could not be otherwise, to all spheres of society: children, adolescents, adults and the elderly.

As for the adolescent educational stage, in general, it is not knowledgeable about the origins of yoga. Yoga, although its origin dates back to India, according to Iyengar (20), "the need for yoga is felt by all human beings from all parts of the world, regardless of their caste, class, nationality and sex". According to it, yoga is a "global exercise", a true "holistic discipline", "an invigorating exercise", an essential part of life that ranges from physiological, psychological to ethical, mental and intellectual aspects.

According to the data collected in this study, the 74% answered that the origin of yoga was in India, while the rest opted for the Chinese option. This could perhaps be explained by the geographical proximity of both countries and also because yoga has spread along with other spiritual and physical practices in the Asian continent in the last two decades.

However, the students did not know what the essence of yoga is, namely a spiritual path, nor when it originates, more than two thousand years ago. The 14.1% of the students surveyed have selected the option "spiritual path", while the vast majority opted for the option "relaxation technique" (50.2%), "stretching technique" (26%) and "sport" (9.7%), answers that are undoubtedly totally linked to the lack of information referred to above about aerobic activities carried out in gyms, that is, a physical activity to be carried out after physical exertion to relax and relax the muscles.

In this same line, the historical knowledge of the students about the birth of yoga was equally confusing. Only 49.4% chose the correct answer, "more than 2,000 years ago". The rest oscillated between the 20th century (27.9%) and the

Middle Ages (22.7%). Thus, given the variety of answers, it is understood that the level of knowledge on the part of the students about the history of yoga and its origin is still a challenge to achieve in public education.

One of the most difficult questions in the eyes of the students was what is an asana. In the field of yoga, asanas are the body postures that connect with all the senses, "this internalization makes the external senses stop interfering with the objects of the world and connect with the internal senses" (20,23). Only 54.6% selected the "posture" option, while the rest chose the "movement" and "breathing" options.

Another of the questions in the survey that drew the most attention after learning about the confusing degree of knowledge about the origins of yoga was "does yoga shape the mind?" Here, a range of responses closer to no than to yes was expected. However, 65.4% responded in the affirmative, 31.2% proposed "perhaps", while only 3.4% responded that it does not influence the mind. This information collected implies that, even though adolescent students are unaware of yoga in general, there is a degree of awareness in favor of this activity in improving education.

In fact, in another of the questions asked about the inclusion of yoga in public education with the aim of improving mental abilities and study techniques, half of the participants (50.6%) thought that yoga helps in concentration and relaxation prior to exams and also provides an improvement in study techniques. While 26% thought that yoga in education would help build a better world from the early stages of growth.

When reading the responses of Andalusian adolescent students, it is observed that the vast majority consider it necessary or, at least, suggestive, to be able to practice yoga in the classrooms of public institutes. Hence, 83.1% consider relevant the possibility of their practice either as an elective or curricular subject. In this line and in reference to what was mentioned above about the positive consequences in the classroom, 42.8% consider yoga as an effective way of inclusion in the circle of students in the face of problems of adaptation in the classroom, absenteeism and to the physical and psychological bullying that students submit to their own classmates.

The reality-unknowing balance discerns the need to innovate in the classroom and the absence of values that are so reiterated in the media when they warn about the problem of bullying, phobias and the most frequent mental disorders, such as lack of concentration. In this sense, yoga plays a fundamental role in all this development, since through its practice it contributes to strengthening the physical and mental health of adolescent students and also reinforces the creation of social bonds between peers (24).

Thus, about the question asked in the surveys on the yoga effectiveness in the use of musical instruments, 66% of the students thought that yogic practice helps, among other things, to enhance lung capacity, relax muscles after intense

violin or guitar classes and promotes concentration in the moments before a performance and also improves the manual capacity of musical instruments such as the piano, guitar or violin. In this sense, it has been shown that yoga can help improve learning and develop coping tools for music students (25).

Something similar happens in sports. For this survey, dance was selected, on the one hand, and, on the other, one of the Olympic sports that has grown the most in the last decade, rhythmic gymnastics. About the first, dance requires not only optimal physical preparation, but total concentration when expressing through movement, creation, and gestures (26). About the second, an Olympic Sport since 1894, it is a discipline that combines elements of ballet, gymnastics, and dance (27). In addition, various instruments are used such as the rope, the hoop, the ball, the clubs and the tape. In the execution of a rhythmic gymnastics montage, a syncretism is created between physical exercise, flexibility, expression, dance, connection with music and bodily harmony in movement. Well, in both disciplines the practice of yoga is quasi-inherent, either to improve certain physical capacities such as flexibility and acrobatics, or in the sense of artistic creation that are required in both disciplines (27). The students who in this case practiced one of these two disciplines affirmed through the surveys that yoga would help to be more graceful and flexible (62.7%) and to improve flexibility and the execution of certain movements (41.5%). Yoga can increase the possibilities of any athlete at any level, base or professional. Although flexibility is perhaps the physical ability that is most covered in the media, aspects such as stress reduction, increased strength in all parts of the body, balance, recovery and concentration result for the athletes a key element in success at an individual and collective level in all levels and categories of sport (1).

Physical Education teachers must implement methodologies that favor satisfaction to facilitate the acquisition of healthy habits (28), in order to satisfy basic psychological needs, motivation and enjoyment of learning (29). In Spain, the possibility of including yoga as a complementary subject in public education has not yet been contemplated. The main objective of transferring yoga to the educational system seems to be an emerging need, although from its learning and practice it contributes directly to the construction of personality and mental development, with all that this process entails in adolescents. Stress, low self-esteem, fear, lack of social ties, lack of concentration, disorders and physical problems, derived from bad postures, are some of the causes that could be avoided under a system advised by yoga professionals (22). Given these circumstances, it seems necessary to train teachers and later students in the world of yoga. As a proposal, perhaps a form of gradual introduction could be from the compulsory subject of Physical Education. In this sense, the teachers and professors of this subject would use part of their teaching programming to practice yoga. This would be plausible through a previous and continuous contact of the teachers with expert yoga teachers. Once the yogic theory and practice is

channeled among the teachers and its implementation works for the students, of which we have no doubt, a future solution would be to implement an optional subject dedicated exclusively to yoga.

CONCLUSION

The knowledge on the ESO and high school students about yoga is very limited, not knowing the history and its origin. Most of the students considered the practice of yoga relevant, either as an elective or curricular subject, so that, despite the lack of knowledge of adolescent students about yoga in general, there was a position in favor of this activity in the education improvement.

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