

Original Research

# Benefits of dance for the health and well-being of youth: comparison with athletes and sedentary.

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**Abstract:** This study aimed to enquire about the potential benefits of dance among young people and its relationship to perceived well-being. To this end, this preliminary research juxtaposes a cohort of young dancers with athletes engaged in other sporting activities and a control group of sedentary young people. Using mixed methods, 96 young people were recruited and asked to complete a questionnaire, while 9 dancers and choreographers were interviewed. The questionnaire assessed subjective well-being using the KIDSCREEN-10 Index, perceived benefits and barriers to physical activity using the Benefits and Barriers to Exercise Scale, and body image using the Multidimensional Body-Body Relations Questionnaire (MBSRQ). The main results show that, although there are no significant differences between dancers and athletes or sedentary people, dancers score higher on well-being perceive both more benefits and barriers to physical activity than the other groups and seem to attach greater importance to others' external evaluation of them, their fitness as well as their evaluation of their physical appearance. From the participants' point of view, dance can be assimilated to other sports in terms of demands, but it is also specific in certain expressive or communicative aspects. It shares with other sports the demands and difficulties of reconciling sport and academic/professional and family life. The above findings can have practical implications for education, sport and public policies.

**Keywords:** physical activity; sport policies; quality of life; body concept; mixed methods

## 1. Introduction

It is increasingly evident that physical activity has a positive impact on people's physical, psychological and social health (World Health Organization WHO, 2020). There are also a growing number of studies proving that physical activity can contribute to an overall sense of well-being (Richards et al., 2015; Wilson et al., 2022; Zhang and Chen, 2019). The many positive effects that physical

activity can have on our health and well-being include improving cardiovascular health and preventing chronic diseases (Rao et al., 2022), relaxation, reducing stress, anxiety and depression (Pascoe et al., 2020), as well as the possibility to socialise in a healthy environment (Buecker et al., 2021). In today's increasingly individualistic societies, where problems such as overweight, obesity, mental health problems and loneliness are



becoming more prevalent, these benefits can play an important role in fostering social connectedness and overall well-being in the population (WHO, 2020).

Previous studies have shown a possible correlation between moderate or vigorous physical activity (PA) and a range of perceived improvements in health, well-being and happiness (An et al., 2020; Pengpid and Peltzer, 2019). However, educated men from more privileged classes are more physically active, suggesting several structural gaps in sport participation in most countries surveyed (European Commission, 2022; Mutz and Müller, 2021; Westerbeek and Rochelle, 2021).

In 2005, the first 'Report Card on Physical Activity for Children and Youth' was produced in Canada to summarise the most up-to-date evidence on physical activity in children and adolescents at a national level. From that time onwards, they have been produced annually, making it possible to evaluate the evolution of the population's habits. At the same time, the system of indicators designed was replicated in other countries and reports were produced for each of them, generating what has been called the Global Matrix 4.0, which currently reports data from 57 countries, providing a valuable tool for the global evaluation of the variation in physical activity of children and adolescents (Active Health and Kids, n.d.). This tool shows that the 'Global Physical Activity' indicator was the worst rated. In contrast, 'School Opportunities' and 'Community Level Organisation' were identified as the indicators with the highest overall average score among participants aged 5-17. However, none of the countries analysed scored above 50% of the maximum

on any of the indicators, which gives an idea of the seriousness of the situation (Aubert et al, 2022). Therefore, there is a need to establish specific policies to promote physical activity and sport among young people.

The latest Special Eurobarometer on physical activity and sport, published in 2022, found that only 12% of Europeans aged 15-24 took regular physical exercise, while 54% did so regularly. Furthermore, this percentage rises to 20% and 44% respectively when asked how often they engage in other physical activities, including recreational or non-sport-related physical activities such as cycling to work, dancing or gardening. Most young Europeans participate in physical activities for a variety of reasons such as improving their health and fitness (49%), having fun (40%), increasing their physical performance (38%), relaxing (36%), being with friends (34%) or improving their physical appearance (33%). It also shows that the main obstacles faced by adolescents and young people in practising sport are mainly related to lack of time and, to a lesser extent, to having no one to do it with, lack of facilities or poor accessibility (Casper et al., 2011; European Commission, 2022). The data also seem to point to body image as one of the factors that play a relevant role in levels of physical activity or sport participation. Research suggests that individuals with a more negative body image may be less likely to participate in such activities, which could potentially act as a barrier to participation (Sabiston et al., 2019).

Furthermore, adolescent girls and young women are less physically active than their male counterparts, despite decades of policy implementation to encourage and

promote girls and women's participation in sport (Chen et al., 2021).

Dance is one of the activities that results most attractive to young people and, to an even greater extent, to women (European Commission, 2022). When analysing sport participation in 27 European countries, it emerged that dance (86%) was the PA with the highest female participation rate of the 18 sports analysed. It is noteworthy that only dance and volleyball were practised to a greater extent by women than men. It is also interesting to note that male participation in dance increases with age, from 9% to 17% among under-8s and under-16s (Emmonds et al., 2024).

In previous literature, dance has been considered a physical activity, a sport and an art form (Guarino, 2015; Holst, 2017). Given its formative role, in many countries it has been included in school physical education curricula as a way of preserving culture, as physical exercise and as a means of expression (Mattsson and Suzanne, 2015).

Dance can be practised in various contexts, from traditional dance to leisure and recreational activities, and from discotheques to competitive events. In its competitive form, Dance Sport includes 11 modalities (Federación Española de Baile Deportivo, n.d.). It is worth noting that it has been the urban dances, those that emerged in the streets, that have achieved greater popularity among the young population, demanding greater social recognition. These street dances have undergone a process of sportivization and their demands have been reflected in their inclusion as part of the programme of the Paris 2024 Olympic Games, in the Breakdance modality (Aliberti

et al., 2023), reaching the level of an Olympic sport (Kim, 2024).

The following are some of the main benefits of dance for young people: improving individual well-being, fostering interpersonal relationships and connections, and fostering community connections (Atkins et al., 2019). The benefits of participating in youth dance programmes include high levels of enjoyment, improved technical and creative ability, increased independence and confidence, and opportunities to socialise with like-minded peers (Aujla, 2020). Dance can also be an excellent tool for improving the perception of body image in adolescents (Monteiro, 2018). It may also be the case that dance could have a positive impact on young people's cognitive development (Izabela et al., 2023). Dance programmes can foster positive identity, as well as social competencies and positive values in the social sphere (Schailée et al., 2017).

Depending on the level and experience of dancers, there may be differences in perceived benefits. More experienced dancers report greater benefits in physical fitness, cognition, affect and social functioning than beginners. Similarly, it appears that dancers who report greater commitment to their activity improve fitness to a greater extent than occasional dancers. It is also noteworthy that self-perceived improvements in mood were greater for women than for men (Lakes et al., 2016).

Dancers' motives for engaging in dance include self-expression, social contacts, fitness, achievement and a break from daily routine (Nieminen, 1998). It could be argued that women are more motivated by aesthetic movement, understood as the link between

music and expressiveness through movement, as well as the specific ability to express one's personality through movement. The opportunity to socialise in a group with similar interests also plays a relevant role in women's participation in dance (Vajngerl and Wolf-Cuitak, 2000).

With the above reasons in mind, this study is aimed to enquire about the potential benefits of dance among young people and its relationship to perceived well-being. To this end, this preliminary research juxtaposes a cohort of young dancers with athletes engaged in other sporting activities and a control group of sedentary young people.

The 'dancers' category includes young people who actively participate in extracurricular dance or dance activities, whether competitive or not, in formal contexts (dance school, sports club association, etc.). The category 'athletes' is made up of young people who actively participate in institutional sport (sports schools, associations, clubs and sports federations). Finally, the definition of 'sedentary' refers to those young people who state that they do not engage in any physical-sporting activity or do so only sporadically.

This work can contribute to the development of better policies to promote physical activity, sport and health among young people and adolescents, demonstrating the value of dance as a healthy, accessible and highly motivating activity for young people. It is part of the European project DAYS Dancing Your Sport, funded by the Erasmus + Sport programme of the European Commission (Ref. 101133504) in which entities from Latvia, Turkey, Romania and Portugal took part.

## 2. Materials and Methods

The study adopted a mixed-methods approach to address the complex relationship between sport, health and well-being. Integrating quantitative data through questionnaires and qualitative data through interviews aiming to achieve a deeper understanding of the object under study (Creswell and Creswell, 2017; Dawadi et al., 2021). A sequential explanatory design with two distinct interactive phases was chosen. In the first phase, quantitative data were collected and analysed, and then a second phase was designed to build on these initial findings by collecting qualitative data (Creswell and Plano, 2018).

Quantitative data collected through a questionnaire provided information on general patterns and correlations between variables, while qualitative data collected through interviews helped to illustrate individuals' experiences of these patterns. The young participants completed a self-administered online questionnaire administered in person during the DAYS project training sessions. This allowed the trainers to answer all their questions and guide them through the questionnaire.

Semi-structured interviews with dancers and choreographers took place during the final phase of the planned mobility to create a collaborative choreography, rehearse and record it in iconic locations in Antalya, Turkey. For this purpose, 8 dancers and a choreographer completed a 10-day stage, although the work together had started remotely, synchronously and asynchronously, months before.

*Subjects* — The first phase sample consisted of 96 young people aged 14 to 25,

recruited among the participants in the DAYS project activities. Of these, 54% were male and 46% female. The sample was divided equally into 3 categories, including 32 dancers, 32 athletes from other sports such as athletics, gymnastics, football, and basketball, and others; and 32 sedentary young people or those who do not practice any sport regularly. Of the sample, only 2% rated their health status as poor, 10.2% as fair, 20.4% as good, 38.8% as very good and 28.6% as excellent. As for their level of physical fitness, 1% perceived it as bad, 8.2% as fair, 26.5% as good, 42.9% as very good and 21.4% as excellent (Table 1).

**Table 1.** Phase one sample characteristics (questionnaire respondents).

		f	%
<b>Age</b>	14-16	32	32.7
	17-20	38	38.8
	21-25	28	28.6
<b>Gender</b>	Male	53	54.1
	Female	45	45.9
<b>Country</b>	Latvia	24	24.5
	Other	1	1.0
	Portugal	25	25.5
	Romania	24	24.5
	Turkey	24	24.5
<b>Modality</b>	Athlete	34	34.7
	Dancer	32	32.7
	Sedentary	32	32.7
<b>Health status</b>	Poor	2	2.0
	Fair	10	10.2
	Good	20	20.4
	Very good	38	38.8
	Excellent	28	28.6
<b>Physical condition</b>	Poor	1	1.0
	Fair	8	8.2
	Good	26	26.5
	Very good	42	42.9
	Excellent	21	21.4

In the second qualitative phase, 9 dancers and choreographers (5 women and 4 men), all of them participants in the DAYS project, aged between 19 and 42 ( $X=29.77$ ,  $SD=7.59$ ), were interviewed to explore the

relationship between youth, dance, health and well-being. Of these, 6 were professionally involved in dance, 2 were students and 1 worked in another sector (Table 2).

**Table 2.** Phase 2 sample characteristics (semi-structured interview respondents).

Code	Country	Age	Gender	Work
D1	Romani	26	Male	Dancer and
D2	Romani	27	Female	Dancer
D3	Latvia	26	Male	Not dancing sector
D4	Latvia	42	Female	Choreographer
D5	Latvia	31	Female	Dancer
D6	Turkey	39	Male	Dancer
D7	Turkey	35	Male	Dancer
D8	Portugal	19	Female	Student
D9	Portugal	23	Female	Student

*Methodology* – In the first phase of the study, the online questionnaire for the young participants consisted of the following sections:

- Socio-demographic data.
- Information on physical activity and health, including self-perceived health status, level of physical fitness, sport participation and type of exercise chosen, as well as subjective state of well-being, using the KIDSCREEN-10 Index, in its version for children and adolescents (KIDSCREEN Group, 2004). This is a 10-item instrument answered on a Likert scale, reflecting the frequency with which they felt a certain way in the week before the questionnaire was administered.
- Perceived benefits and barriers to physical activity were assessed using the Exercise Benefits and Barriers Scale (Sechrist, Walker & Pender, 1987). This is a 43-item instrument that seeks to explore the

benefits and barriers associated with physical exercise. Participants are invited to indicate their level of agreement or disagreement with each statement on a 4-point Likert scale.

- Body image questionnaire, the Multidimensional Body-Self Relations Questionnaire (MBSRQ) by del Botella et al. abbreviated version (Botella et al., 2009; Cash, 2000), which consists of 39 items that are answered on a Likert-type scale according to the degree of agreement/disagreement with each of the statements. It consists of four factors: Subjective Importance of Corporality (ISC), Fitness-Oriented Behaviours (FOB), Self-Assessed Physical Attractiveness (SPA) and Physical Appearance Care (PAC).

The semi-structured interview script designed for dancers and choreographers included the following themes: effects of dance on fitness; dance and mental health in young people; the influence of dance on personal development; the relationship between dance and well-being and quality of life; as well as the main benefit of dance for youth.

This study was approved by the Research Ethics Committee of the Government of Aragon CEICA (Spain) on 24 January 2024 (C.I. PI23/641) and all participants gave informed consent.

*Statistical Analysis* — The questionnaire data were analysed using SPSS® version 29 statistical software using the following statistical tests: normality tests (Kolmogorov-Smirnov), Spearman's Rho (rs) to examine linear correlation, tests of independence,

before going on to perform the descriptive analysis that allows us to assess the level of physical activity and health (KIDSCREEN-10), the perceived benefits and barriers of exercise, as well as the four factors that makeup body image (MBSRQ) among our participants. All statistical tests were applied with a 95% confidence level.

Regarding qualitative data, the interviews with dancers and choreographers were subjected to content analysis, this being a technique 'of analysis of communications tending to obtain indicators (quantitative or not) by systematic and objective procedures of description of the content of messages allowing the inference of knowledge relating to the conditions of production/reception (social context) of these messages' (Bardin, 1996:32). Two researchers with complementary profiles took part in the study to carry out the analysis through inter-judge consensus (Glaser and Strauss, 1967; López Aranguren, 2001).

Based on the objectives and the literature review, four dimensions were established by consensus concerning dance and young people: 1) improvement of physical fitness; 2) improvement or maintenance of health; 3) personal development; and 4) quality of life/well-being. Once these elements were determined, the classification criterion was that of thematic categories or dimensions, from which 59 themes and sub-themes emerged using the deductive method (Ruiz Olabuenaga, 1996). The rules used by the two researchers for the coding of the content were those of presence, frequency, intensity, and direction (Bardin, 1996), and 90 units of content were identified according to the application of these rules.

### 3. Results

*Results of the questionnaire to youth* - The results of the questionnaire are presented below, starting with the full sample of participants and then comparing the scales and items of the 3 groups (dancers, athletes and sedentary).

After applying the normality test to the quantitative variables (Kolmogorov-Smirnov for  $n > 50$ ) and seeing that the data did not meet the assumptions of normal distribution ( $p < 0.05$ ), non-parametric statistical tests were used (Table 3).

Furthermore, Spearman's Rho test ( $r_s$ ) allowed us to examine the linear correlation between the variables analysed and showed that the strongest positive correlation was between the following variables (Table 4).

In addition, tests of independence were applied between the variables considered as factors to compare their means between the different groups of categorical variables. See the Mann-Whitney U test for gender, and Kruskal Wallis test for age, type of participant or modality, level of health, physical condition and intensity of physical activity, as shown in the following table (Table 5).

**Table 3.** Kolmogorov-Smirnov test.

	Normal parameters <sup>a,b</sup>			Max. Ex. Dif.			Statistic	
	N	Mean	SD	Absolute	Positive	Negative	test	Sig.
KD Score	96	37.7292	6.23484	.081	.049	-.081	.081	.046
Benefits	98	95.0714	13.04967	.100	.100	-.096	.100	.017
Barriers	98	36.2755	8.17310	.120	.054	-.120	.120	.001
ISC	98	3.5036	.37861	.067	.067	-.048	.067	.040
FOB	98	3.5598	.65971	.095	.095	-.074	.095	.030
SPA	98	3.6774	.80554	.100	.100	-.098	.100	.018
PAC	98	3.9286	.62541	.118	.118	-.082	.118	.002

**Table 4.** Significant positive correlations.

Variable 1	Variable 2	Correlation $r_s$
Benefits	ISC	.702
Barriers	FOB	.680
Physical condition	Health status	.674
ISC	PAC	.661
ISC	SPA	.645
Benefits	FOB	.605
Benefits	SPA	.520
Benefits	PAC	.497
Health status	KD Score	.443
Benefits	Barriers	.372
Physical condition	KD score	.358

**Table 5.** Independence test.

	Gender			Age			Modality			Health status			Physical condition		
	U of Mann-Whitney	Z	Sig.	H of Kruskal-Wallis	gl	Sig.	H of Kruskal-Wallis	gl	Sig.	H of Kruskal-Wallis	gl	Sig.	H of Kruskal-Wallis	gl	Sig.
KD score	1,100.0	-.324	.746	15954	2	.000	.267	2	.875	18926	4	.001	13007	4	.011
Benefits	1,060.0	-.945	.345	5265	2	.072	1193	2	.551	8124	4	.087	7868	4	.097
Barriers	1,005.5	-1.33	.182	6135	2	.047	2835	2	.242	1680	4	.794	3922	4	.417
ISC	1,062.5	-.928	.354	1158	2	.560	2860	2	.239	6729	4	.151	10568	4	.032
FOB	1,122.0	-.504	.614	4687	2	.096	1643	2	.440	5580	4	.233	9945	4	.041
SPA	1,104.0	-.638	.524	.875	2	.646	3269	2	.195	10249	4	.036	7095	4	.131
PAC	1,154.5	-.273	.785	1085	2	.581	.465	2	.793	3681	4	.451	4095	4	.393

In the sample, no significant differences by gender were observed in relation to the perception of well-being, benefits and barriers to physical activity or body self-perception. However, there were significant differences by age for the KIDSCREEN, which measures perceived well-being in the last week ( $p=0.00$ ), and for perceived barriers ( $p=0.47$ ).

There are also significant differences between perceived physical fitness and the KIDSCREEN ( $p=0.001$ ) and the ‘Perceived Physical Attractiveness’ ( $p=0.36$ ) of the MBSRQ questionnaire. After analysing the relationship between perceived physical condition, there are significant differences between this and again the KIDSCREEN ( $p=0.11$ ), and the scales ‘Subjective Importance of Corporality’ ( $p=0.32$ ) and ‘Behaviours Oriented to the Maintenance of Physical Condition’ ( $p=0.41$ ). This last scale also shows significant differences with the level of physical activity practised ( $p=0.43$ ).

When analysing the results for each of the participating groups, we observe that dancers obtain better scores in the perception of well-being ( $X= 38.42\pm4.81$ ), followed by athletes ( $X= 37.91\pm6.36$ ) and sedentary ( $X= 36.87\pm7.33$ ). The same is true for the perceived benefits of physical practice, with dancers scoring  $96.37 (\pm13.28)$ , athletes  $95.79 (\pm13.28)$  and sedentary  $93.00 (\pm12.73)$  points.

Dancers also perceive barriers to physical activity to be the greatest, with a score of  $38.03 (\pm7.59)$ , followed by the sedentary with  $35.97 (\pm7.75)$ , and finally, the athletes, who encounter the least difficulties for regular practice ( $X= 34.91 \pm 8.99$ ).

Regarding the different scales of the body self-perception questionnaire, dancers score higher on the scales of ‘Fitness-Oriented Behaviours’ (FOB) and ‘Self-Assessed Physical Attractiveness’ (SPA), athletes on ‘Subjective Importance of Corporality’ (ISC), and, finally, sedentary people on ‘Physical Appearance Care’ (PAC), as shown in Table 6.

**Table 6.** Comparison of the three groups on the Body Self-Perception Scales.

	Mean (total)	Athletes	Dancers	Sedentary
CSI	3.50 ±0.38	3.56 ±0.32	3.53 ±0.42	3.42 ±0.39
FOB	3.56 ±0.66	3.60 ±0.67	3.64 ± 0.73	3.44 ±0.58
SPA	3.68 ±0.81	3.76 ±0.84	3.80 ±0.66	3.47 ±0.88
PAC	3.93 ±0.63	3.95 ±0.65	3.88 ±0.63	3.96 ±0.61

However, no significant differences were found between the three groups or modalities (athletes, dancers, and sedentary). Being a relatively small sample, the analysis of the different instruments by item may provide additional relevant information. When analysing the results by item, we find that dancers score lower than average on the perception of unwanted loneliness (KD 4)



and higher on fun with friends (KD 8), as shown in Table 7.

**Table 7.** Results (mean scores) per item of the Well-being Scale for each group.

Think about the last week...		Total	Ath	Dan	Sed
KD 1	Have you felt fit and well?	4.1	4.3	4.2	3.7
KD 2	Have you felt full of energy?	3.4	3.4	3.5	3.3
KD 3	Have you felt sad?	3.9	3.8	4.0	4.0
KD 4	Have you felt lonely?	4.2	4.0	3.3	4.2
KD 5	Have you had enough time for yourself?	3.2	3.2	3.4	3.0
KD 6	Have you been able to do the things you want to do in your free time?	3.2	3.2	3.2	3.2
KD 7	Has your family treated you fairly?	4.1	4.1	4.1	4.2
KD 8	Have you had fun with friends?	3.9	4.0	4.2	3.6
KD 9	Have you got on well at school (or job)?	3.6	3.6	3.7	3.6
KD 10	Have you been able to pay attention?	3.6	3.7	3.7	3.5

It is also observed that dancers score slightly higher than the other two groups in key items of the benefits and barriers scale, in aspects related to improved flexibility (item 23), increased energy (item 22), and decreased fatigue (item 29) and achieve moderately higher scores on the item 'physical exercise is a good way to meet new people' (item 30).

When analysing the barriers scale, dancers score higher on aspects related to exertion, especially on the item 'exercising is hard work for me' (item 40) and, to a lesser extent, 'I get tired when I exercise' (item 19). Likewise, dancers find less social support than athletes and sedentary people, scoring slightly higher on items such as 'my family does not support me' (item 21), or 'my family does not encourage me to exercise' (item 33), than athletes and sedentary people. They also report greater barriers related to supply, such as 'the distance to the places of practice' (item 9), 'the timetables' (item 16), or 'the existence of few facilities for its practice' (item 42). The group of dancers also scored higher on two items referring to time use: 'exercising takes

too much time away from family relationships' (item 24) and 'exercising takes too much time away from my family responsibilities' (item 37). The biggest difference between dancers and athletes can be seen in the influence of external evaluation, exemplified by the items 'I am too embarrassed to exercise' (item 12) and, above all, 'I think that people in sports clothes look funny' (item 28), since dancers score higher.

Athletes are the group closest to the overall average, although they score lower on 'importance of external evaluation' (item 28) and 'lack of sports facilities' (item 42). Sedentary score below average on 'the opportunities physical activity offers to meet new people' (item 30), or to 'keep in touch with friends and people I like' (item 11), and to a lesser extent on 'physical exercise helps to reduce fatigue' (item 29), or that it is 'too hard work' (item 40).

Table 8 shows the mean scores per item of the Benefits and Barriers of Exercise Scale for each of the groups, with the items corresponding to the barriers marked in grey.

**Table 8.** Benefits and Barriers to Exercise mean scores by item.

		Mean (total)	Athletes	Dancers	Sedentary
1	I enjoy exercise	3.5	3.6	3.4	3.5
2	Exercise decreases feelings of stress and tension for me	3.5	3.6	3.5	3.5
3	Exercise improves my mental health.	3.6	3.5	3.6	3.6
4	Exercising takes too much of my time.	2.2	2.1	2.3	2.1
5	I will prevent heart attacks by exercising.	3.3	3.3	3.1	3.3
6	Exercise tires me.	1.8	1.8	1.8	1.8
7	Exercise increases my muscle strength.	3.5	3.5	3.6	3.5
8	Exercise gives me a sense of personal accomplishment.	3.1	3.3	3.1	2.9
9	Places for me to exercise are too far away.	2.4	2.2	2.3	2.6
10	Exercising makes me feel relaxed.	3.4	3.4	3.5	3.3
11	Exercising lets me have contact with friends and people I enjoy.	3.1	3.2	3.1	2.9
12	I am too embarrassed to exercise.	2.6	2.5	3.0	2.5
13	Exercising will keep me from having high blood pressure.	3.2	3.3	3.2	3.1
14	It costs too much to exercise.	2.6	2.5	2.6	2.6
15	Exercising increases my level of physical fitness.	3.6	3.6	3.6	3.5
16	Exercise facilities do not have convenient schedules for me.	2.8	2.6	3.0	2.8
17	My muscle tone is improved with exercise.	3.5	3.5	3.6	3.4
18	Exercising improves functioning of my cardiovascular system	3.5	3.4	3.6	3.6
19	I am fatigued by exercise.	2.6	2.4	2.9	2.5
20	I have improved feelings of well being from exercise.	3.4	3.4	3.3	3.4
21	My spouse (or significant other) does not encourage exercising.	2.6	2.4	2.8	2.6
22	Exercise increases my stamina.	2.8	2.9	2.6	2.8
23	Exercise improves my flexibility	2.7	2.7	3.0	2.6
24	Exercise takes too much time from family relationships	2.5	2.3	2.7	2.6
25	My disposition is improved with exercise	3.4	3.4	3.3	3.5
26	Exercising helps me sleep better at night.	3.4	3.4	3.3	3.5
27	I will live longer if I exercise.	3.4	3.3	3.4	3.6
28	I think people in exercise clothes look funny.	3.0	2.5	3.5	3.0
29	Exercise helps me decrease fatigue.	2.7	2.8	2.9	2.4
30	Exercising is a good way for me to meet new people.	3.0	3.0	3.4	2.7
31	My physical endurance is improved by exercising.	3.3	3.4	3.3	3.2
32	Exercising improves my self-concept.	3.1	3.1	3.2	3.1
33	My family members do not encourage me to exercise.	2.6	2.4	3.0	2.6
34	Exercising increases my mental alertness	3.4	3.4	3.4	3.3
35	Exercise allows me to carry out normal activities without becoming tired.	3.1	3.1	3.1	3.1

36	Exercise improves the quality of my work.	3.2	3.2	3.2	3.3
37	Exercise takes too much time from my family responsibilities.	2.7	2.5	3.0	2.7
38	Exercise is good entertainment for me.	3.4	3.4	3.4	3.2
39	Exercising increases my acceptance by others.	3.2	3.1	3.3	3.1
40	Exercise is hard work for me	2.3	2.3	2.8	2.0
41	Exercise improves overall body functioning for me.	3.5	3.4	3.5	3.4
42	There are too few places for me to exercise.	2.6	2.3	2.8	2.9
43	Exercise improves the way my body looks.	3.2	3.1	3.1	3.4

*Results of the interviews with dancers and choreographers* - The dancers and choreographers interviewed identified a wide range of benefits for young people in dance, assimilating dance with other sports in their discourse. Among these benefits are the improvement of physical fitness (posture, flexibility, muscle strength, demand on the whole body) and the promotion of values traditionally associated with sport, such as effort, training and discipline.

*Through dance we make much more effort than it seems (D1)*

*... Requires the use of the whole body (D3)*

*It helps us to keep fit in many ways, such as posture and flexibility, strengthening the muscular system, among others (D7).*

However, they also see dance as having distinctive characteristics, such as the notion that dance can be considered an art form as well as a sport, as it requires the engagement of the whole body as well as allowing for the expression of creativity. They also see the improvement of physical fitness as an inherent benefit, rather than the main purpose of dance.

*Dance is an artistic and sporting form that combines the pleasurable with the useful (D2)*

*Yes, dance is an art form that can be considered as a sport (D8)*

The relationship between dance and the well-being of young dancers is associated with key elements of mental health and personal development. Participants considered dance as a means of self-expression, a universal language that facilitates communication between individuals and a tool for emotional regulation. Dance facilitates the development of self-knowledge, self-confidence and awareness of one's limits, with the ultimate goal of achieving a fulfilling life.

*When I was a child, I used to turn negative energy into positive energy by dancing.... I used to dance all my problems away (D4).*

*I discovered myself (D7).*

For young people, dance can be associated with positive affect, emotional well-being, improved self-concept and a sense of belonging.

*It helps you to be aware of your body and to be happy with yourself (D3)*

*...and value the body (D9)*

*It helps young people physically and emotionally and even helps them to realise their capabilities (D8).*

*Young people need to feel that they are part of something (D5)*

The notion of dance as a conduit for freedom is recurrent in the interviews, understood as the balance between the physical, the mental and the spiritual that leads the individual to experience a sense of vitality.

*It keeps you alive physically and spiritually (D6)*

*...dance is the freedom to express ourselves and transmit messages through it (D8).*

#### 4. Discussion

This study aimed to investigate the potential benefits of dance among young people and its relationship to their well-being. In this sense, it examined whether dance's physical, psychological, and social effects can be compared to those of other sports (athletes) and sedentary youth. Although no significant differences were found between the three groups, the dancers in the sample perceived greater well-being and benefits from physical activity. In their self-assessment of their health status and physical condition, they rate themselves lower than other athletes, similar to sedentary young people.

Benefits of dance include, for youngsters, physical characteristics of the modality such as improved flexibility on a physical level, reduced feelings of fatigue and increased energy level on a psychological level, as well as the possibility of meeting other people with similar interests on a social level (in line with Atkins et al., 2019 and Aujla, 2020). The interviewed dancers and choreographers agree on these

aspects, although they add the social values that dance inculcates.

These results agree with some of the benefits of physical activity and sport traditionally considered in the literature (WHO, 2020; Richardson et al., 2015; Wilson et al., 2022) such as relaxation, reduction of stress and anxiety (Pescoe et al., 2020); socialisation in a healthy environment (Buecker et al., 2021). As Pascoe et al (2020) point out, continuous physical activity is a fundamental source of mental health for children, adolescents and the entire population in general, so that they can lower their stress and anxiety levels in a natural way, without relying on medication, contributing to their relaxation. Thus, we find that in school and medical environments, it is prescribed as something necessary, given the increasing incidence in young people of problems related to anxiety, depression and suicidal ideation. Professionals are currently 'prescribing physical activity', often adapting it to the physical condition of the young person, but less commonly to their mental and emotional needs. Padilla & Coterón (2013) found that, through a dance intervention programme, subjects improved the levels of different mental health indicators such as: mood (depression, energy levels, stress, anxiety, distress, worry), social and parental relationships, self-esteem, negative emotions, well-being, self-perceived health, self-confidence, body self-image and quality of life.

Although more experienced people may experience greater benefits from dancing, no significant differences by age were found in this study. Nor by gender, although some studies noted that female dancers may experience greater emotional improvement (Lakes et al., 2016).

In this sense, dance would have many elements in common with other sports and could be considered effective as a physical-

sporting activity. In the interviews, there is a desire to assimilate dance and sport in terms of physicality, demands, benefits and barriers, but also a demand for differentiation based above all on creativity, art and lifestyle (Guarinos et al., 2015; Holst, 2017), although this could also fit in with expressive sports modalities such as rhythmic gymnastics, artistic swimming or some equestrian events. However, the European Commission in its Eurobarometer on physical activity and sport considers dance in the category of 'other physical activities not related to sport' (European Commission, 2022).

However, just as young dancers perceive the benefits of physical activity to a greater extent, they also perceive the barriers, highlighting the hardness of the modality, the lack of social support, the scarcity of facilities and other facilities for the practice of their sport, the high demand that entails difficulties in reconciling sport and family life and other responsibilities. Here again, they do not differ much from other athletes, with the most frequent barriers among young athletes being lack of time and lack of people to do it with, lack of facilities and lack of accessibility of facilities (Casper et al. 2011; European Commission, 2022).

Regarding well-being, young dancers perceived unwanted loneliness to a lesser extent and had more fun with friends than the other two groups. Interviewees expanded on the protective mental health role that dance can have through communication, expression and emotional self-regulation aligned with Nieminen (1998). Dance confers identity, based on belonging and lifestyle and promotes healthy personal development (Schaillee et al., 2017).

It must be considered that the target population of this study, between 14 and 25 years old, are in the period of adolescence and youth. Adolescents need to have a

group of peers with whom they can relate, compare themselves and feel integrated as a group, to develop their personality in a healthy and balanced way. On the other hand, physical changes make them feel vulnerable and compare themselves with their peers, and they may develop complexes. Dancers participating in this study seem to be more influenced than athletes and sedentary by external evaluation.

The Eurobarometer data show that European youth (15-24 years) who play sports have as main reasons to practice improving health and fitness, followed (in order) by having fun, improving performance, relaxing, being with friends and improving the physical appearance (European Commission, 2022). On the contrary, physical appearance seems more important for the dancers participating in this study, although not significantly. They seem to be more influenced than athletes and sedentary by external evaluation. This social judgement could be influenced by the teaching style of teachers and coaches, with the manager being more effective in making learners feel better (Amado et al., 2015).

However, they perceive themselves as higher physically attractive than athletes and sedentary and exhibit more fitness-oriented behaviours, which is relevant given that a positive body image increases sport participation (Sabiston et al., 2019). Self-rated physical attractiveness responds to the evaluation of physical appearance, while fitness-oriented behaviours respond to the subject's evaluation of his or her physical condition (Botella et al., 2009).

Thus, dance, through improved body image perception (Monteiro, 2018) could improve sport participation in general. This is of particular importance in the case of young women, since while there is still a gap in sport participation between men and women (European Commission, 2022; Michael y Müller, 2021). Dance appeals

especially to young women, with 86% of those who dance in Europe (Emmonds et al., 2024) when sedentary lifestyles and the premature abandonment of physical activity and sport by adolescent women has become a public health problem with present and future consequences.

The sample size and the variety of socio-cultural backgrounds of the participants should be considered as limitations, so this study is a starting point for future research to investigate both quantitatively and qualitatively the sporting aspects of dance and its benefits for youth.

## 5. Practical Applications.

1. At the educational level, and despite sporting environments being healthy environments (Buecker et al, 2021), in many European countries secondary schools do not include physical activities in the extracurricular activities offered to their students, being that it is the best means of promoting healthy and recreational activities for youth. In this sense, the results obtained in this study could be useful when programming dance within this offer, considering the benefits it offers. Specific dance programmes could also be designed for adolescents with stress and anxiety problems, with feelings of loneliness or who need support in establishing social relationships with peers, in coordination with the physical education and psycho-pedagogical departments.

2. In the sports sector, the fact that dance has demonstrated as many health and wellness benefits as other sports facilitates its promotion not only as a recreational or leisure activity, but also its inclusion in sports programmes, and the dissemination of these programmes and their benefits in a fresh way, integrating youth interest and culture into competitive dancing. Valuing dance as a sport, with all the benefits it brings, analysed in this work, can also

contribute to the growth of all types of dancing in public and private sports centers. It also has implications for working with young dancers who appear to be more vulnerable in terms of their mental health than sports athletes, due to the high demands of dance and the heightened concern about appearance.

3. Regarding public sports policies, there is a widening gap among young Europeans between traditional sports such as football, basketball, etc. towards private gyms, both in men and women, with the percentage being much higher in men (European Commission, 2020). This situation is often accompanied by an excessive preoccupation with physical appearance, which is detrimental to health. Although girls go to gyms, they tend to opt more for dance-related activities. On the contrary, young men are keener on competition than women, so promoting competitive dancing or tournaments could attract young men to these dancing activities.

4. The social gap becomes evident when we consider who the young people are who participate in sporting activities because when it is funded by public bodies and offered to the population at reduced costs, it is the youngsters with the lowest socio-economic level who participate the least in general, and by gender, women in particular. But also, those youngsters who require school support to continue their studies tend to participate less, and this is because families tend to enroll them preferably in instrumental subject reinforcement, which can cause severe health consequences in the future. It is, therefore, necessary for public policies to be implemented by the services that give priority to young people, such as education, social services and youth services, which should focus on the need to offer dance as a physical activity or sport in schools, institutes, youth centres, youth centres and

leisure time centres, to accommodate the whole variety of interests and motivations, and not only, as usually, the most popular.

## 6. Conclusion.

In conclusion, dance responds to the same level of demands and requirements as other sports, provides identity and is a means of expression, which makes it particularly suitable for an increasingly sedentary youth. As future lines of research, it would be useful to deepen and discuss with different interest groups (young people, dancers and choreographers, sports managers, educators and authorities) the concrete ways to exploit all this potential in different socio-cultural environments, considering their particularities.

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## References

- Aliberti, S., Raiola, G., & Cherubini, D. (2023). The role of emotional states and mental techniques in dancesport: A systematic review. *Baltic Journal of Health and Physical Activity*, 15(3), 8.
- Álvarez, L.F., Carriedo, A., & González, C. (2020). Relaciones entre el autoconcepto físico, la condición física, la coordinación motriz y la actividad física en estudiantes de secundaria. *Journal of Sport and Health Research*, 12(3), 22-22.
- Amado, D., García-Calvo, T., Marreiros, J., López-Chamorro, J. & del Villar, F. (2015). Analysis of students' emotions in agreement with the dance teaching technique used. *European Journal of Human Movement*, 34, 123-138.
- An, H.Y, Wei C., Cheng-Wei W., Hui-Fei Y., Wan-Ting H., & Sheng-Yu F. (2020). The Relationships between Physical Activity and Life Satisfaction and Happiness among Young, Middle-Aged, and Older Adults. *International Journal of Environmental Research and Public Health* 17(13): 4817. <https://doi.org/10.3390/ijerph17134817>
- Atkins, R., Deatrick, J. A., Gage, G. S., Earley, S., Earley, D., & Lipman, T. H. (2019). Partnerships to evaluate the social impact of dance for Salud: a qualitative inquiry. *Journal of Community Health Nursing*, 36(3), 124-138.
- Aubert, S., Barnes, J.D., Demchenko, I., Hawthorne, M., Abdeta, C., Abi Nader, P., ... & Tremblay, M. S. (2022). Global matrix 4.0 physical activity report card grades for children and adolescents: results and analyses from 57 countries. *Journal of Physical Activity and Health*, 19(11), 700-728.
- Aujla, I.J. (2020). 'It's my dream come true': experiences and outcomes of an inclusive dance talent development programme. *British Journal of Special Education*, 47(1), 48-66.
- Bardin, L. (1996). *Análisis de contenido*. Akal.
- Botella, L., Ribas, E. & Benito, J. (2009). Evaluación psicométrica de la imagen corporal: Validación de la versión española del Multidimensional Body Self Relations Questionnaire (MBSRQ). *Revista Argentina de Clínica Psicológica*, 18(3), 253-264.
- Buecker, S., Simacek, T., Ingwersen, B., Terwiel, S., & Simonsmeier, B.A. (2021). Physical activity and subjective well-being in healthy individuals: a meta-analytic review. *Health Psychology Review*, 15(4), 574-592.

- Cash, T.F. (2000). *The multidimensional body-self relations questionnaire*. Unpublished test manual, 2, 1-12.
- Casper, J.M., Bocarro, J.N., Kanters, M.A., & Floyd M.F. (2011). "Just let me play!" – Understanding constraints that limit adolescent sport participation. *Journal of Physical Activity and Health*, 8(s1), S32-S39.
- Castro-Sánchez, M., & Chacón-Cuberos, R. (2023). Asociación entre autoconcepto y hábitos saludables en adolescentes de entorno rural. *Journal of Sport and Health Research*, 15(2).
- Chen, T.J., Watson, K.B., Michael, S.L., & Carlson, S.A. (2021). Sex-stratified trends in meeting physical activity guidelines, participating in sports, and attending physical education among US adolescents, youth risk behavior survey 2009–2019. *Journal of Physical Activity and Health*, 18(S1), S102-S113.
- Creswell, J.W., & Creswell, J.D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.
- Creswell, J.W., & Plano, V.L. (2018). *Designing and conducting mixed methods research*. Sage publications.
- Dawadi, S., Shrestha, S., & Giri, R.A. (2021). Mixed-methods research: A discussion on its types, challenges, and criticisms. *Journal of Practical Studies in Education*, 2(2), 25-36.
- Emmonds, S., Till, K., Weaving, D., Burton, A., & Lara-Bercial, S. (2024). Youth sport participation trends across Europe: implications for policy and practice. *Research Quarterly for Exercise and Sport*, 95(1), 69-80.
- European Commission (2022). *Special Eurobarometer 525. Sport and Physical Activity*. Retrieved from <https://europa.eu/eurobarometer/surveys/detail/2668>.
- Federación Española de Baile Deportivo. <https://febd.es/>
- Glaser, B.G. & Strauss A.L. (1967). *The Discovery of Grounded Theory: Strategies for Qualitative Research*. Chicago: Aldine.
- Group KIDSCREEN (2004). *Index KIDSCREEN-10, children and adolescents' version*. Retrieved from [https://www.corc.uk.net/media/g2hj04ku/kidscreen\\_manual\\_english.pdf](https://www.corc.uk.net/media/g2hj04ku/kidscreen_manual_english.pdf)
- Guarino L. (2015). ¿Es la danza un deporte? Un debate del siglo XXI. *Revista de Educación en Danza*, 15(2): 77-80.
- Holst J. (2017). Sport as art, dance as sport. *Auc Kinanthropologica*, 53(2): 138-145.
- Izabela, H., Katarzyna, B., & Krzysztof, P. (2023). The level of selected motor-cognitive abilities of young female professional dancers in the context of perfectionism. *Journal of Physical Education and Sport*, 23(6), 1407-1415.
- Kim, M. (2024). *Paris 2024: ¿Qué es el Breaking, el nuevo deporte en los Juegos Olímpicos?* Retrieved from <https://olympics.com/es/noticias/paris-2024-que-es-breaking-nuevo-deporte-juegos-olimpicos>.
- Lakes, K. D., Marvin, S., Rowley, J., San Nicolas, M., Arastoo, S., Viray, L., ... & Jurnak, F. (2016). Dancer perceptions of the cognitive, social, emotional, and physical benefits of modern styles of partnered dancing. *Complementary Therapies in Medicine*, 26, 117-122.
- López Aranguren E. (2001). El análisis de contenido tradicional. En *El análisis de la realidad social. Métodos y técnicas de investigación* (3ª ed), M. García Ferrando, J. Ibáñez, F. Alvira (Coords). Alianza.
- Mattsson, T., & Lundvall, S. (2015). The position of dance in physical education. *Sport, Education and Society*, 20(7), 855-871.
- Mutz, M., & Müller, J. (2021). Social stratification of leisure time sport and exercise activities: comparison of ten popular sports activities. *Leisure Studies*, 40(5), 597-611.
- Monteiro, L.A.C., Fernandes, H.M.G., Santos, M.L.B., & Novaes, J. S. (2018). The influence of dance practice on the



- body image of adolescents: a systematic review. *J Exerc Physiol*, 21(5), 158-69.
- Nieminen, P. (1998). Motives for dancing among Finnish folk dancers, competitive ballroom dancers, ballet dancers and modern dancers. *European Journal of Physical Education*, 3(1), 22-34.
- Padilla Moledo, C., & Coterón López, J. (2013). Can we improve mental health dancing?: A systematic review. *Retos*, 24, 194-197. <https://doi.org/10.47197/retos.v0i24.34556>.
- Pascoe, M., Bailey, A. P., Craike, M., Carter, T., Patten, R., Stepto, N., & Parker, A. (2020). Physical activity and exercise in youth mental Salud promotion: a scoping review. *BMJ Open Sport & Exercise Medicine*, 6(1), e000677.
- Pengpid, S., & Peltzer, K. (2019). Sedentary behaviour, physical activity and life satisfaction, happiness and perceived health level in university students from 24 countries. *International Journal of Environmental Research and Public Health*, 16(12), 2084.
- Rao, P., Belanger, M. J., & Robbins, J. M. (2022). Exercise, physical activity, and cardiometabolic Salud: insights into the prevention and treatment of cardiometabolic diseases. *Cardiology in Review*, 30(4), 167-178.
- Richards, J., Jiang, X., Kelly, P., Chau, J., Bauman, A., & Ding, D. (2015). Don't worry, be happy: cross-sectional associations between physical activity and happiness in 15 European countries. *BMC Public Health*, 15(1), 1-8.
- Ruiz Olabuénaga, J.I. (1996). *Metodología de la investigación cualitativa*. Deusto
- Sabiston, C.M., Pila, E. V., Vani, M., & Thogersen-Ntoumani, C. (2019). Body image, physical activity, and sport: A scoping review. *Psychology of Sport and Exercise*, 42, 48-57.
- Schaillée, H., Theeboom, M., & Skille, E. (2017). Adolescent girls' experiences of urban dance programmes: A qualitative analysis of Flemish initiatives targeting disadvantaged youth. *European Journal for Sport and Society*, 14(1), 26-44.
- Sechrist, K. R., Walker, S. N., & Pender, N. J. (1987). Development and psychometric evaluation of the exercise benefits/barriers scale. *Research in Nursing & Health*, 10(6), 357-365.
- Vajnger, B., & Wolf-Cvitak, J. (2000). Motivational structure of girls involved in sports with a distinct esthetic component. *Kinesiology*, 32(1), 55-66.
- Westerbeek, H., & Eime, R. (2021). The physical activity and sport participation framework—a policy model toward being physically active across the lifespan. *Frontiers in Sports and Active Living*, 3, 608593.
- Wilson, O.W., Whatman, C., Walters, S., Keung, S., Enari, D., Rogers, A., ... and Richards, J. (2022). The value of sport: Wellbeing benefits of sport participation during adolescence. *International Journal of Environmental Research and Public Health*, 19(14), 8579.
- World Health Organization (2020). WHO guidelines on physical activity and sedentary behaviour. Retrieved from <https://www.who.int/publications/i/item/9789240015128>.
- Zhang, Z., and Chen, W. (2019). A systematic review of the relationship between physical activity and happiness. *Journal of Happiness Studies*, 20(4), 1305-1322.