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Project: 101050018

— Sport4C —

ERASMUS-SPORT-2021-  
SNCESE

Sport4Cancer  
D4.3 Event impact  
report

Sport4Cancer - Project: 101050018– ERASMUS-SPORT-2021-SNCESE

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## 1. INTRODUCTION

Sporting events can act as a major stimulant of social life in the locality, as well as contributing to the improvement of the quality of life of citizens through the promotion of sport and physical activity. Likewise, sporting events are seen as key element in the economic and tourism development of the organising locality. For this reason, sport events with a touristic purpose have experienced significant growth and interest in recent years (Tadini, et al., 2021), despite their temporary cessation due to the COVID-19 pandemic. According to Tadini, et al. (2021) sporting events, depending on their scale, have great potential to generate economic benefits.

Holding sporting events is a strategy widely used by local communities to generate positive impacts and benefits in their territory. Holding a sporting event is an opportunity for communities seeking to promote their tourist attractions, attract visitors, obtain international recognition or improve their media coverage, regenerating the locality and revaluing the community (Balduck et al., 2011). In turn, attendance at sporting events is among the options most in demand by the population for the occupation of their free and leisure time, sport being one of the social phenomena with the greatest global repercussions (Andam et al., 2015).

In Spain, 66.8% of the population attended a sporting event at least once a year, either in person or through audiovisual media (Consejo Superior de Deportes, 2020), generating a total of 565 million euros in the country during 2019 (Ministerio de Cultura y Deporte, 2022). The potential of the sport and tourism binomial has not gone unnoticed by entities wishing to organise sporting events (Allameh et al., 2015). Sport events bring different types of benefits to the economy, tourism, infrastructure, image or recognition of the host communities. These benefits increase competitiveness among communities wishing to host major sporting events (Añó et al., 2012; Balduck et al., 2011).

In this sense, those responsible for the Sport4Cancer major sporting event project, as specialists in the evaluation of sporting events, have carried out an exhaustive analysis of the event from five different perspectives, although interrelated to each other by different aspects. In addition, to reinforce the evaluation of the event, the five approaches mentioned above have been directly linked to academic works of undergraduate and master students of the University of Murcia. The list of the academic papers, their category and the topic on which they have been focused is as follows:

1. Master's Thesis: Analysis of the social perception of the resident.
2. Master's Thesis: Evaluation of the attendee's perception of tourism.
3. Bachelor's Thesis: Analysis of the perceived quality of the activities.
4. Bachelor's Thesis: Analysis of the profile of volunteers.
5. Master's Thesis: Perception of the contribution to the Sustainable Development Goals through the event.

## 2. SPORT4CANCER INFORMATION

Sport4Cancer Mar Menor Games (hereinafter Sport4Cancer) is a large international non-profit multi-sport event that took place in the Region of Murcia (Spain) between 20 and 23 April 2023. It was aimed at all audiences: people who do not do enough physical activity, people with disabilities, women, immigrants, federated and amateur athletes, etc., but especially to cancer survivors and their families and friends, encouraging them to practice sport.

Sport4Cancer is born as an Erasmus+ project, co-financed by the European Union, call ERASMUS-SPORT-2021-SNCESE with the identification number 101050018. The total duration of the project is 12 months, from 1 September 2022 to 31 August 2023.

Sport4Cancer is an example of a sporting event with a charitable purpose that encourages active community participation in the fight against cancer. Such events allow participants to satisfy several motives at the same time, e.g. playing sport, enjoying leisure time and having fun while contributing to a charitable cause (Bennett et al., 2007).

The Sport4Cancer Mar Menor Games programme included more than 100 sporting and recreational activities of a wide variety, whether competitive, exhibition or participatory, and brought together more than 10,000 national and international participants. In addition, recreational and leisure activities were organised for all ages with a family atmosphere, in order to encourage the participation of all members of the community. The inclusion of different sporting disciplines in the event allows for greater participation of athletes and countries and, consequently, a wider reach.

The event took place in the coastal municipalities of the Mar Menor, specifically in San Javier, San Pedro del Pinatar, Los Alcázares and Cartagena. This strategic location provides the opportunity to practice a wide variety of sports in different scenarios, such as track, land, water, water sports, among others. Sport4Cancer was organised by the University of Murcia and the Union of Sports Federations of the Region of Murcia and counted with the collaboration of 12 European institutions from Germany, Bulgaria, Croatia, Slovenia, France, Greece, Italy, Lithuania, Portugal and Turkey.

In addition, in parallel to the sporting event, a scientific congress was held on current events in the field of physical activity and cancer, and leisure and music areas were set up throughout the event, with a play area for children and a wide range of activities.

All sporting activities were organised, coordinated and supervised by qualified staff with expertise in the different sporting disciplines. More than 120 volunteers were also involved in logistical, informative and sustainable tasks.

## 3. SOCIAL PERCEPTION

### 3.1. Introduction

Perception is a fundamental cognitive process that involves the recognition, interpretation and attribution of meaning to an individual's sensations from the physical and social environment (Vargas, 1994). This process is influenced by various factors, such as personal experiences, values, ideology, customs and traditions of individuals (Altés, 1997). Concretising the term in the social sphere, Aronson et al. (2010) understand social perception as the active cognitive process by which an individual generates perceptions and judgements about others, and is determined by the motivations, emotions and cognitive capacity of each individual.

On the other hand, when approaching the definition of social impacts derived from sport events, there is a clear tendency to conceptualise them from a tourism perspective because most existing research has established a close relationship between social impact and tourism, considering sport events as events that attract tourism (Añó et al., 2012; Fredline et al. 2003). In this sense, Mathieson and Wall (1982) define social impacts as "changes in the quality of life of residents of tourism destinations" (p. 137), while Oshimi et al. (2016) consider it as the short-term perceptions of residents in relation to the social, economic, cultural, physical and environmental impacts of sporting events (Oshimi et al., 2016).

The support of host localities' residents for the organisation of sport events is based on the perception of the impacts that these events will have on them. To explain this phenomenon, the Social Exchange Theory (SET) is widely used in most studies analysing such impacts (Bull & Lovell, 2007; Deccio & Baloglou, 2002; Gursoy & Kendall, 2006; Karadakis & Kaplanidou, 2012; Ma et al., 2013; Waitt, 2003; Vegara-Ferri et al., 2020). This theory states that people evaluate benefits and costs before making decisions, and will only be willing to participate in an exchange if they consider that the benefits outweigh the costs (Ap, 1992; Blau, 2017; Emerson, 1976).

Assessing the social impact of an event is practical and valuable to increase its quality. However, there is currently no standardised and universally accepted theoretical framework for assessing social impact, which has led to the development of a variety of approaches that address different dimensions under a variety of names (Kim & Walker, 2012; Zhang et al., 2020). In the international literature addressing the impacts of sport events, the most analysed dimensions are economic, social or socio-cultural and environmental, as well as the assessment of positive or negative impacts and the benefits and costs associated with the organisation of the event.

In summary, the social impact of a sporting event consists of the changes that occur in the quality of life of residents at different levels (social, economic, cultural, physical or environmental) as a result of hosting the event.

Economic impact is one of the most studied fields in the field of sport events. Most studies have focused mainly on assessing the economic effects generated by these events, leaving social and environmental impacts, which have traditionally received less attention from researchers, in the background.

It should be noted that the holding of sporting events can have various economic impacts on the localities that host them, both positive and negative. On the one hand, the organisation of these events can generate favourable economic effects, such as, for example, an increase in income for the cities that host them, the attraction of new investors, the stimulation of trade and local businesses, or the creation of employment opportunities (Deccio & Baloglou, 2002; Kaplanidou et al. 2013; Ritchie, 1984; Zhang et al., 2020).

Another important aspect related to the hosting of sporting events concerns the socio-cultural and psychosocial impacts. It is clear that these events not only generate economic repercussions in the host city, but can also generate effects that affect the daily life of the residents as social phenomena. Therefore, in recent years, many social perception studies have been carried out to identify the positive and negative impacts in this area.

The residents of the host locality are the ones who mostly attend sporting events, either as participants or spectators, which makes them the main beneficiaries or detractors of the event. It is essential that both event organisers and local government are aware of and consider the needs of the local community (Fredline et al., 2002). One means of gaining insight into residents' opinions is through the measurement of socio-cultural impacts, allowing residents of host cities to learn about, support and identify with the sporting event (Añó et al., 2013).

Sporting events often have both direct and indirect impacts on the residents of host communities. This allows them to observe social changes that, depending on the size of the locality, the scale of the event and its particular characteristics, can generate different levels of long-term impacts and benefits (Chalip, 2006; Gibson et al., 2012).

Several authors have highlighted how holding sporting events brings a wide range of positive socio-cultural impacts, such as the opportunity to meet new people, increasing civic pride, improving community cohesion or residents' solidarity and hospitality, understanding and appreciation of other cultures, strengthening traditions or developing national identity (Cheng and Jarvis, Chiam & Cheng, 2013; 2010; Fredline & Faulkner, 2000; Kim et al, 2006; Lindblom et al., 2022; Malfas et al., 2004; Prayag et al., 2013; Waitt, 2003; Zhou and Ap, 2009). Furthermore, sport events have the potential to contribute to the transformation of communities by aligning with the Sport for Development and Peace strategy and in line with the Sustainable Development Goals, even when the organisation of the event is not explicitly driven by this strategy (Lindblom et al., 2022).

Furthermore, it is important to consider that the organisation of sporting events can motivate and encourage residents to participate in sporting activities, thus improving their quality of life (Malfas et al., 2004). However, there is no common view on the effects of sporting events on the practice of physical activities and sports, as there are no longitudinal

studies that have analysed whether major sporting events increase people's participation in such activities (Coalter & Taylor, 2008; Haynes, 2001; Murphy & Bauman, 2007; Veal & Frawley, 2009; Weed et al., 2009).

By hosting sporting events, the locality also seeks to benefit from its image and promote its tourist attractions. The promotion and enhancement of the locality's image internationally is highly valued (Zhou & Ap, 2009), as well as the revitalisation of the community (Añó et al., 2012; Mao & Huang, 2016).

Different studies have found that visitors' perception of the destination is one of the most important factors in choosing a destination and creating strategies to enhance the event (Allameh et al., 2015; Barker et al., 2002; Byon & Zhang, 2010, Pratt & Chan, 2016). In this way, such events help to boost tourism, increasing the number of visitors to host locations. They could also increase the length of stay and spending and thus contribute to the creation of new jobs and economic growth in the community.

However, sport events do not always generate positive impacts for the locality, its environment and its residents, as they can also have social costs and negative effects, especially in terms of the environment. Negative environmental impacts are often related to the damage and destruction of natural areas and ecosystems (Añó et al., 2012; Cheng & Jarvis, 2010; Fredline et al., 2013; Ritchie et al., 2009), transformations in land use, pollution of coastal, river or lake areas, or the deterioration of historical and cultural heritage (Kim et al., 2006).

Other adverse effects on the natural environment may be due to the temporary construction of structures or facilities intended to meet the requirements of the event (Malfas et al., 2004); as well as problems related to noise, traffic or waste accumulation (Balduck et al., 2011; Barker et al., 2002; Kim et al., 2006; Prayag et al., 2013; Polcsik et al., 2022; Ritchie et al., 2009).

## 3.2. Objectives

-The general objective of this study is to analyse the social perception of the residents of the host municipalities of the major European event Sport4Cancer 2023 by comparing the results according to phase, gender and age.

The specific objectives are:

- a) - To compare the social perception of the residents of the host localities of the Sport4Cancer event at two points in time (before and during).
- b) - To compare the social perception of the residents of the host localities of the Sport4Cancer event according to the gender perspective.
- c) - To compare the social perception of the residents of the host localities of the Sport4Cancer event according to age.

### 3.3. Method

#### 3.3.1. *Sample*

The total sample for this research consisted of a total of 626 valid surveys carried out (number of rejected surveys: 43) by residents of one of the four municipalities hosting the event (San Javier, San Pedro del Pinatar, Los Alcázares and Cartagena): 420 from the pre-phase and 206 from the on-site phase. The process followed for the selection of the study subjects consisted of non-probabilistic convenience sampling.

The following Figures show the main socio-demographic characteristics of the sample of residents who completed the survey. Of the respondents, 34.7% were men and 62.6% were women, with a mean age of  $41.86 \pm 12.9$  years. Considering the gender perspective, 36.6% were male, 62.1% were female and 0.3% were non-binary. In terms of employment status, 63.9% of respondents were employed/contracted.

Analysing the resident's intention, in the pre-event phase 47.1% had no prior knowledge of the Sport4Cancer event, while in the on-site phase this percentage rises to 82.5%. On the other hand, 10.5% were going to follow the event, 24.6% were going to follow it on social networks and 67.3% were going to attend the event.

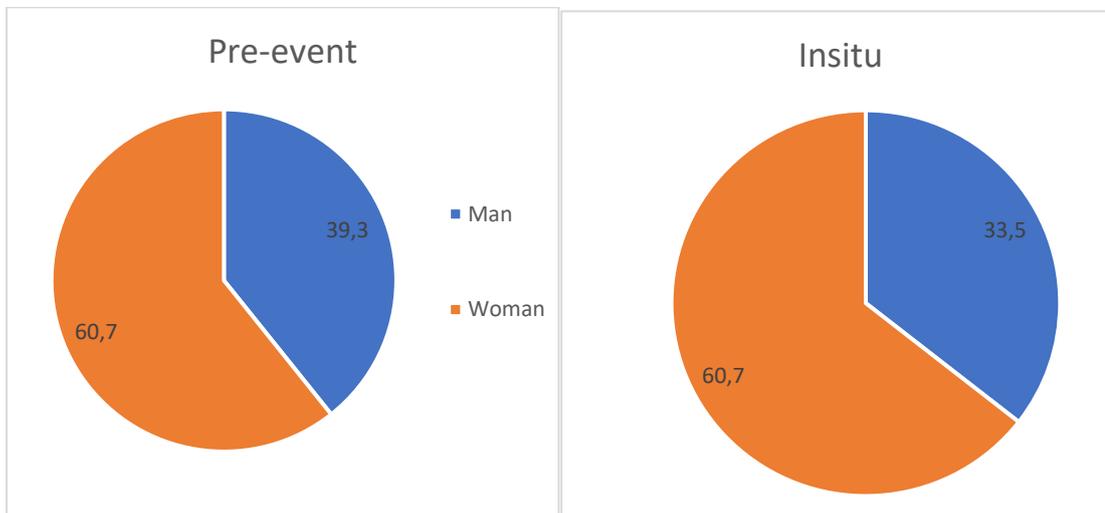


Figure 1. Sex of residents by event phase.

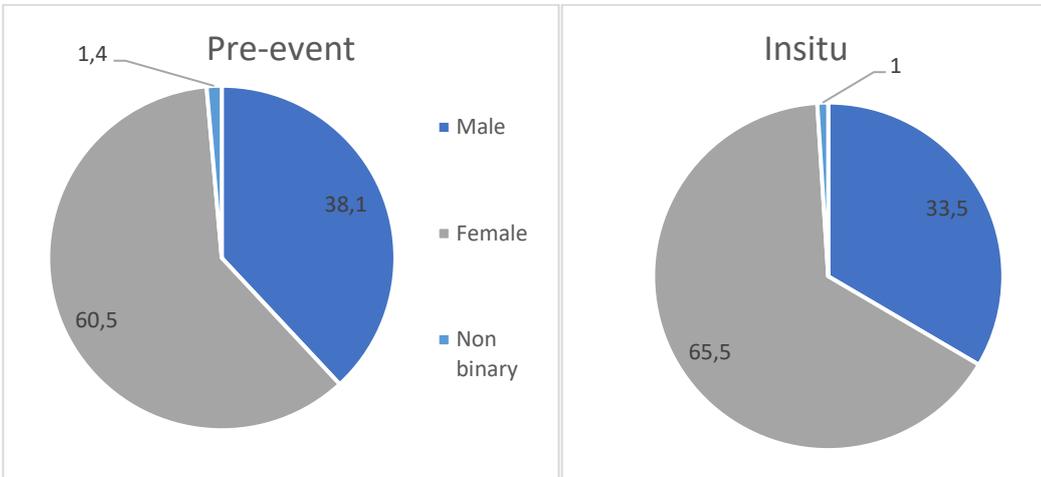


Figure 2. Gender of residents by event phase.

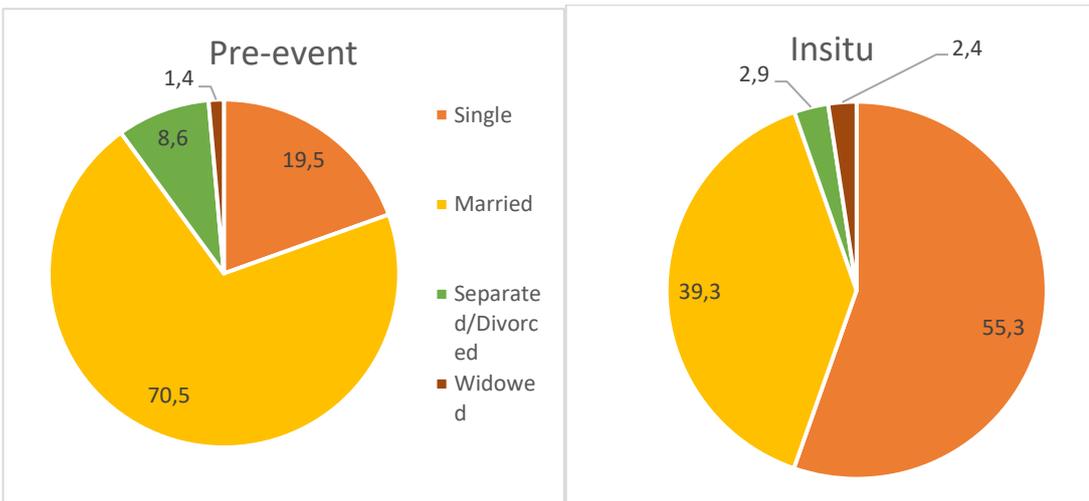


Figure 3. Marital status of residents by event phase.

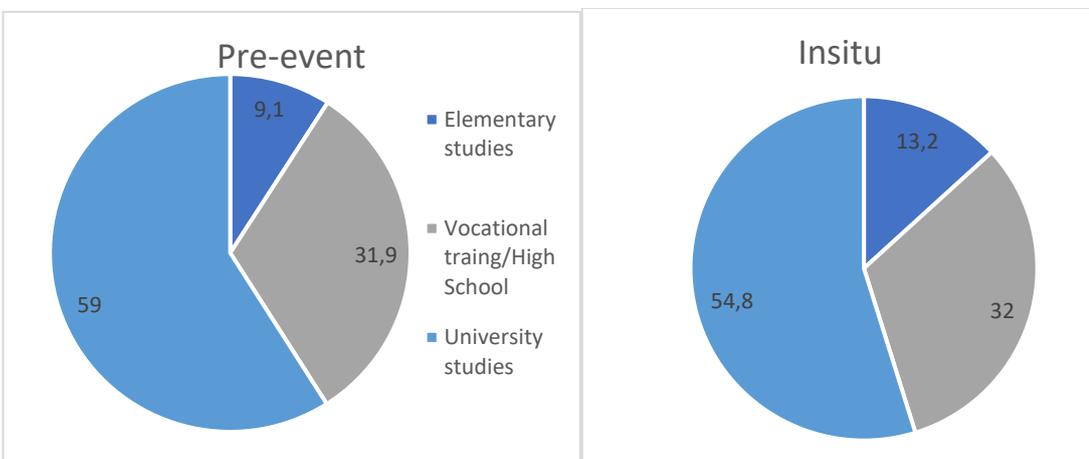


Figure 4. Education level of residents by event phase.

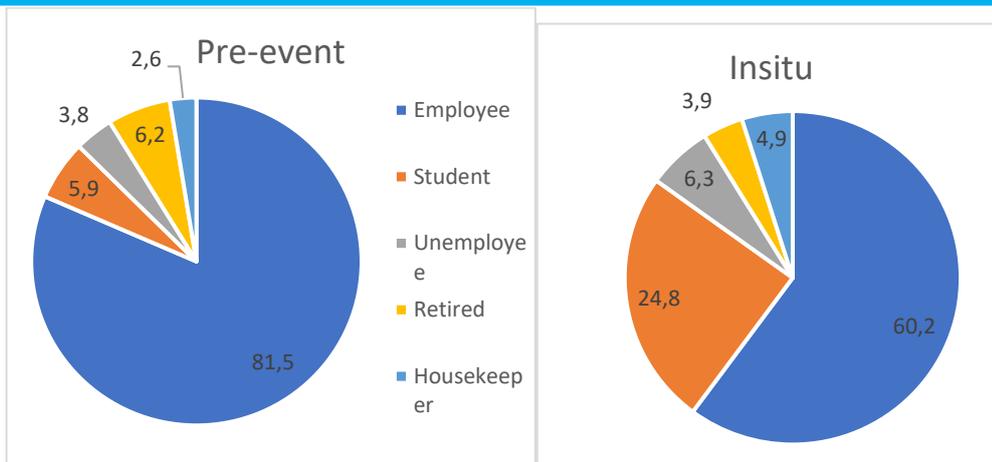


Figure 5. Occupation of residents by event phase.

### 3.3.2. Instruments.

**Social Impact Questionnaire.** Based on the Social Impact Questionnaire of Vegara-Ferri et al. (2020), an adapted version was developed that includes a total of 27 items structured in five dimensions: economic benefits (3 items), socio-cultural and psychosocial benefits (8 items), image and promotion benefits (7 items), social costs (5 items) and future intentions (5). The rating scale was a seven-item Likert-type scale (1.- Strongly disagree; 7.- Strongly agree). The reliability of the scale yielded a Cronbach's alpha value of 0.931.

The scale was subjected to a control when purifying the database following exclusion criteria in order to obtain the most valid and reliable sample possible. To this end, the following exclusion criteria were defined:

- Completion time: the minimum time to complete the survey was set at 210 seconds (3:30 minutes) and questionnaires completed and sent in less time were rejected, as it is understood that respondents did not spend enough time to read the questions carefully or answered them randomly.
- Control question: An extra control question was added to the questionnaire as an additional filter for random responses. All questionnaires that in the item "Control question: Mark a 4 on this question" indicated a score other than "4" on the Likert scale were excluded.
- Place of residence: all questionnaires whose answer to the question "Place of residence" was a postcode not belonging to San Javier, San Pedro del Pinatar, Los Alcázares or Cartagena were excluded.
- Age: questionnaires completed by children under 16 years of age were rejected.

### 3.3.3. Procedure

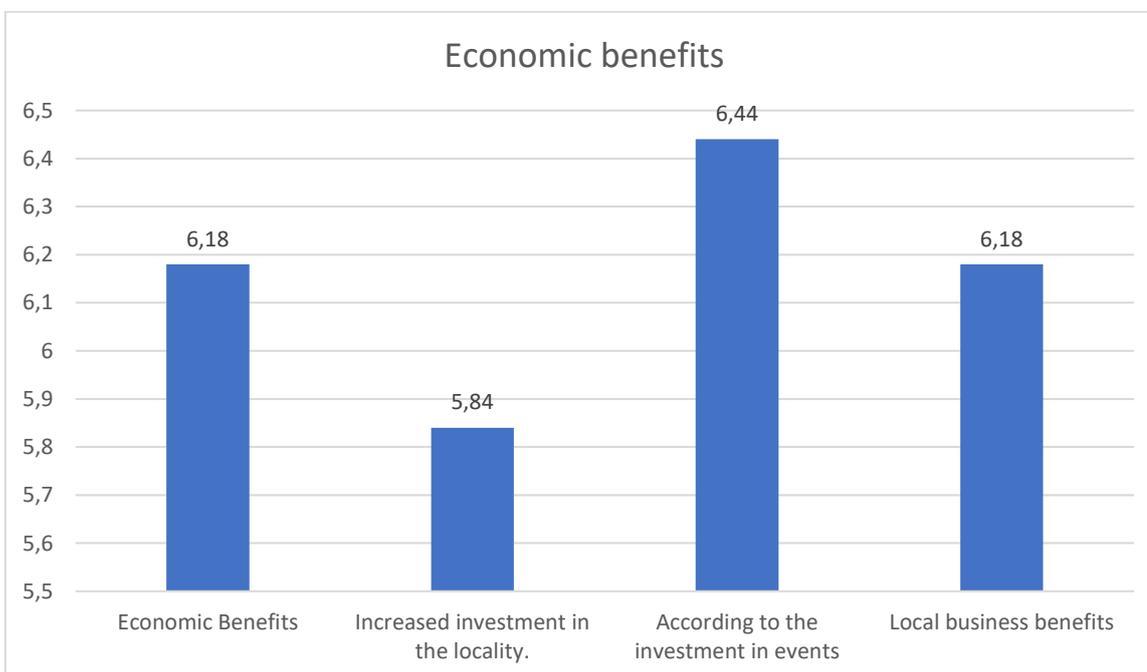
The present study employed a quantitative methodology, specifically a cross-sectional comparative descriptive methodology, through the use of a questionnaire organised into various blocks of content (Rodríguez & Cabrera, 2007). Prior to carrying out this research, an update of the literature was carried out for the last year and a half, from 1 January 2022 to 13 March 2023, based on the doctoral thesis of Vegara-Ferri (2022).

Subsequently, an adaptation of the questionnaire to the context of the Sport4Cancer event was conducted. The data collection took place through different media, depending on the phase. During the previous phase was used Facebook Ads, the platform sponsored ads this social network, and allows you to target your advertising in age function, gender and geographic location. In the on-site phase, a group of three pollsters equipped with tablets travelled to the different locations of the event and randomly surveyed attendees in person. In addition, it is distributed flyers with a QR code that facilitates access to the online questionnaire through the personal mobile phones of assistants.

As for the collection of research data collection, this took place in two pre-events phases and in situ. The collection of data from the previous phase data started two weeks before the event held and ended the previous day to your start. The phase in situ took place during the completion of the event, specifically the 22 April and 23 April 2023 days.

### 3.4. RESULTS

Figure 6 shows the residents' perception of Spor4Cancer Mar Menor Games in terms of economic benefits. In relation to this dimension, support for public investment in sporting events was the highest rated item (M=6.44 points), although in general all items in this dimension scored highly.



**Figure 6.** Economic benefits perception of residents.

In the second dimension analysed, socio-cultural and psychosocial benefits (Figure 7), most of the items scored above 5 out of 7 (moderate), except for the improvement of the maintenance of roads, green areas or gardens due to the event (M=4.99 points). The highest rated items were the contribution of the event to improving the well-being of residents and providing an unusual experience (M=5.78 points).

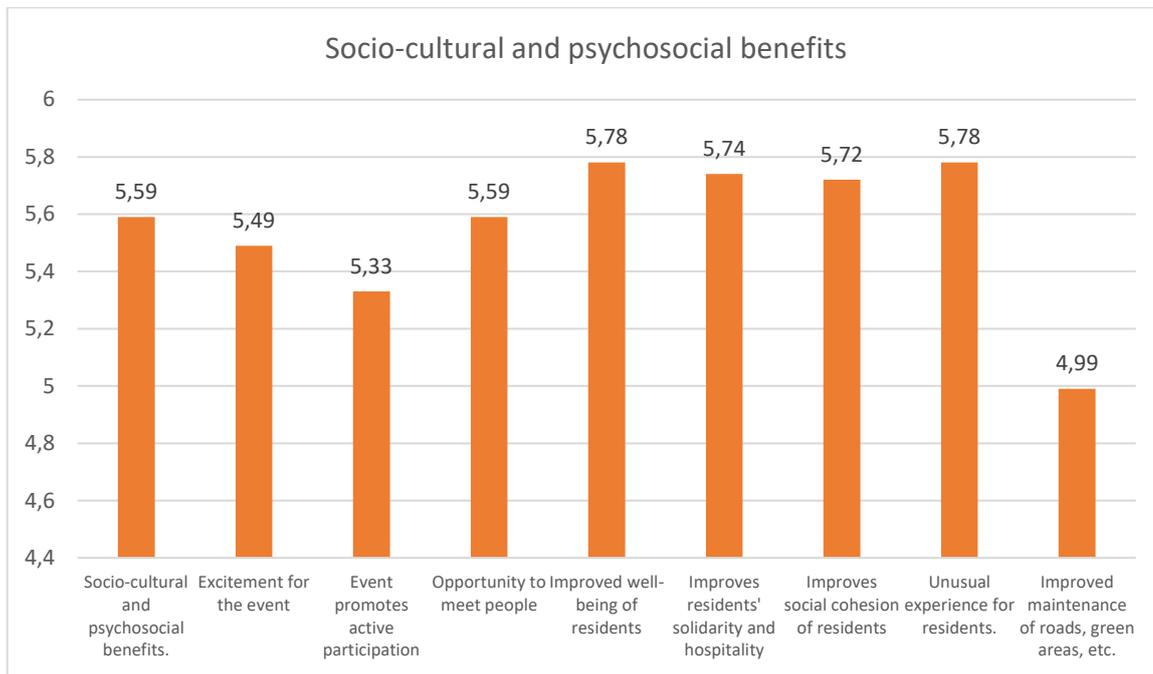


Figure 7. Socio-cultural benefits perception of residents.

The results of the image and promotion benefits dimension (Figure 8) show for most of the items values close to 6 points out of 7, with the promotion of sport among young people (M=6.25 points) being the highest rated item. In contrast, the improvement of the international image of the municipality was the lowest rated item in this dimension (M=5.61).

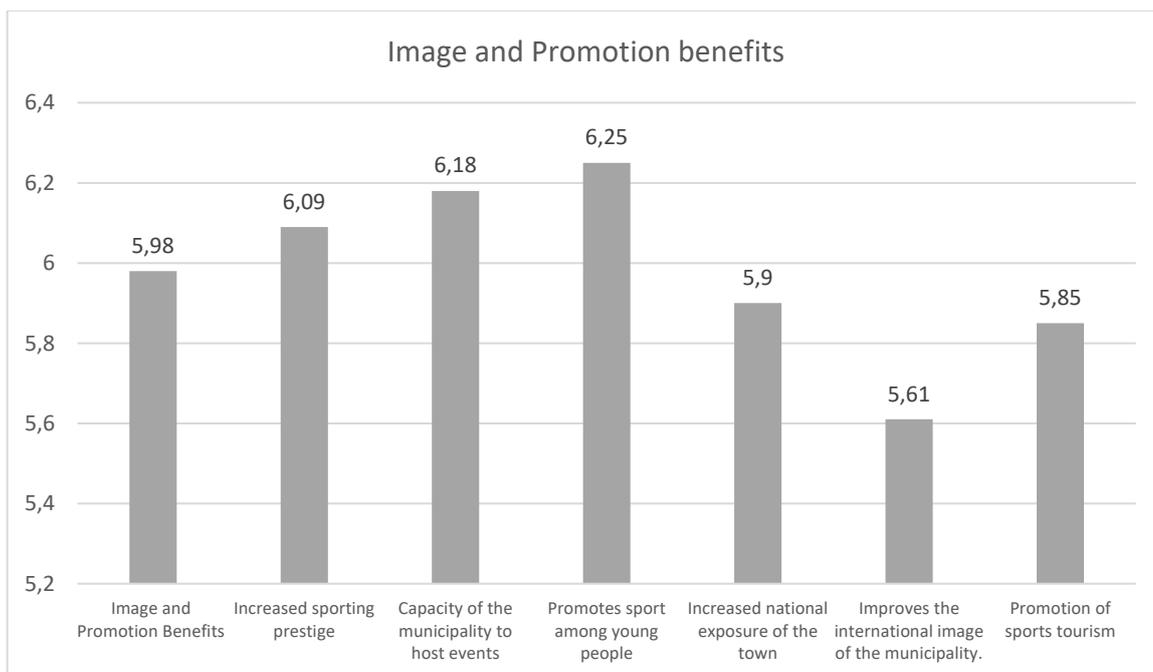


Figure 8. Image and promotion benefit perceptions of residents.

Social costs (Figure 9) is a negative dimension, which means that the lower the score of the items the better the residents will rate it. Parking problems (M=4.83 points) and traffic congestion in the municipality (M=4.52) were the lowest rated items in the dimension, while safety concerns were the highest rated (M=2.93 points).

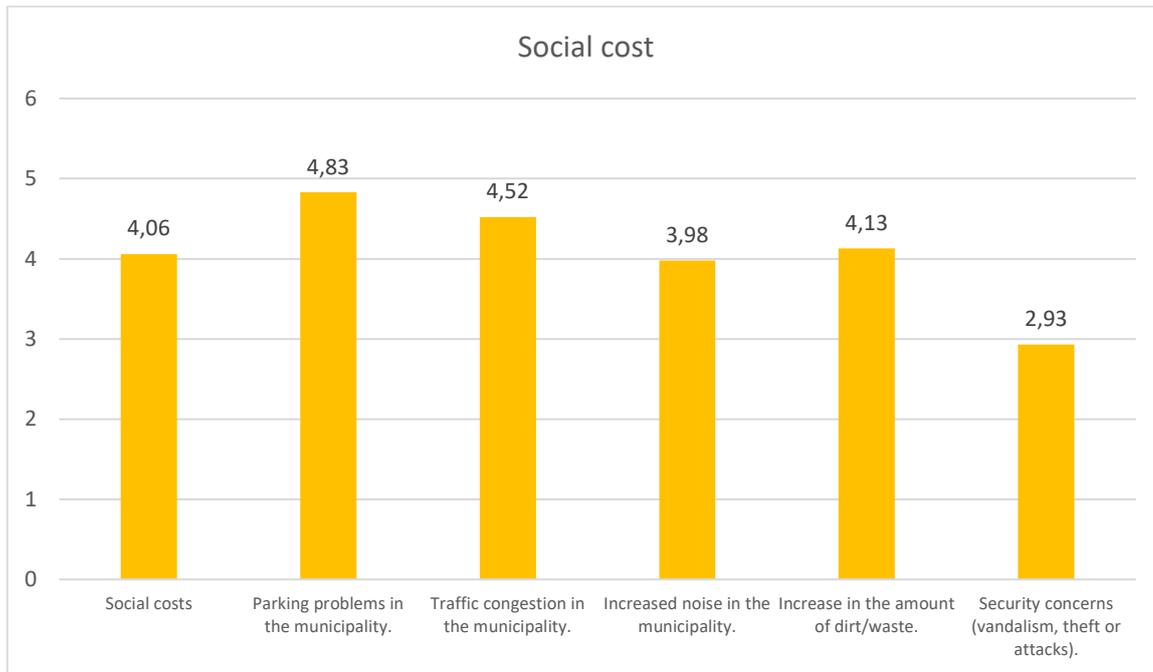


Figure 9. Social cost perception of residents.

Finally, all items in the future intentions dimension (Figure 10) showed scores above 6 out of 7, making this the highest rated dimension of all. Support for holding the event in the municipality is the highest rated item (M=6.47 points), followed by interest in the municipality's future participation in major sporting events (M=6.48 points).

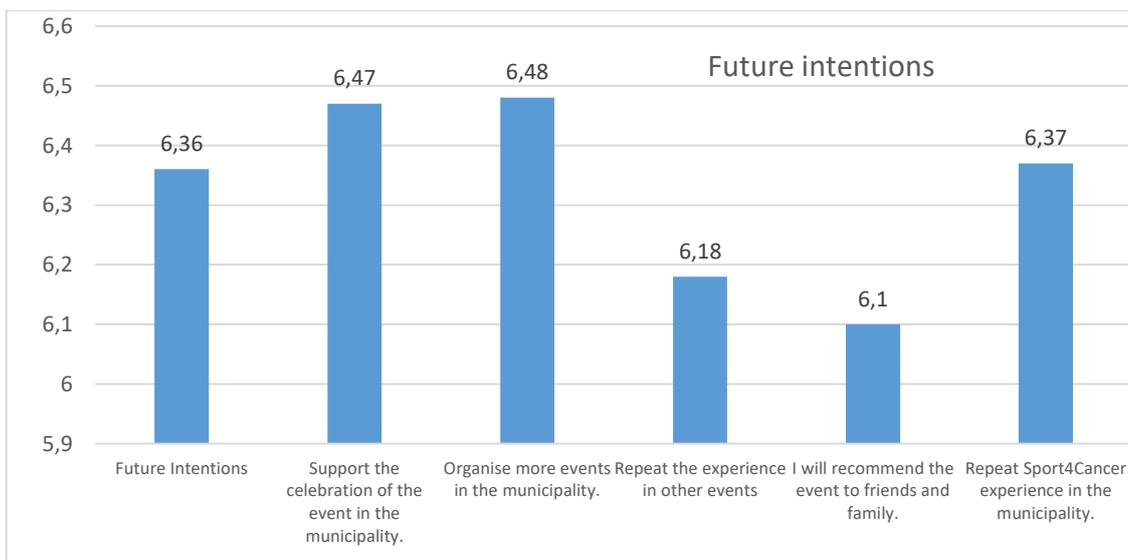


Figure 10. Future intentions of residents.

Figure 11 shows a comparison of residents' social perceptions by event phase. On-site scores were significantly higher than pre-event scores in all dimensions except the social costs dimension. In both phases, the best rated dimension is the future intentions dimension, while the social costs dimension scores the lowest. However, because this is a negative dimension, it is important to note that a lower score indicates a better assessment.

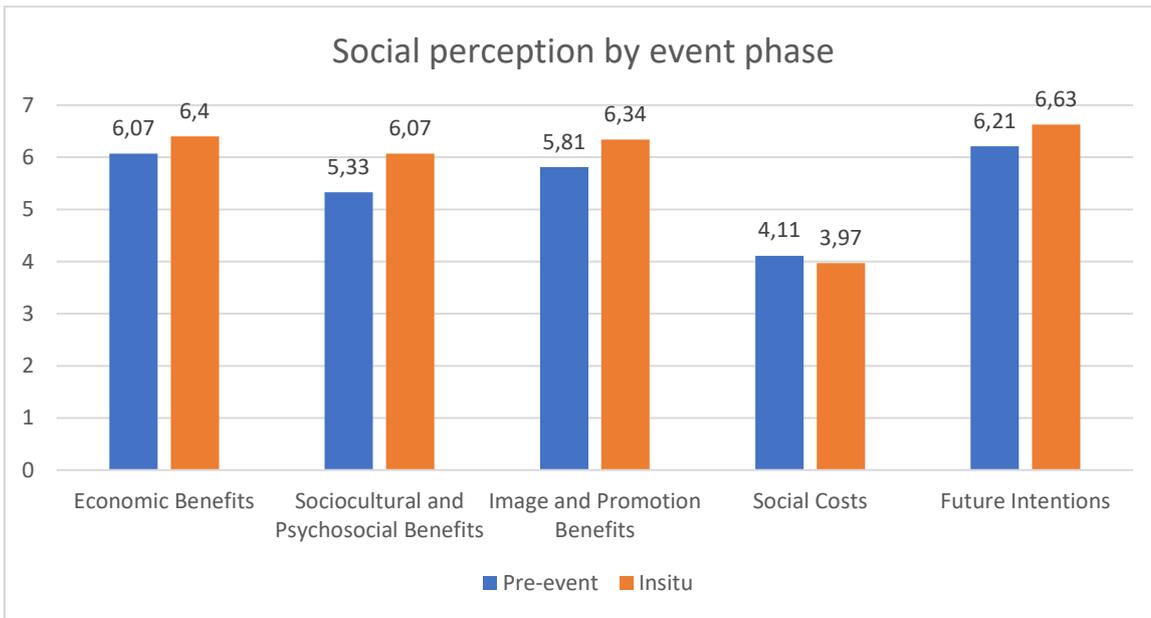


Figure 11. Social perceptions of residents by event phase.

Figure 12 shows the differences between residents' social perceptions by gender (male and female) overall in each of the dimensions analysed. Female scores were significantly higher than male scores on social costs and future intentions.

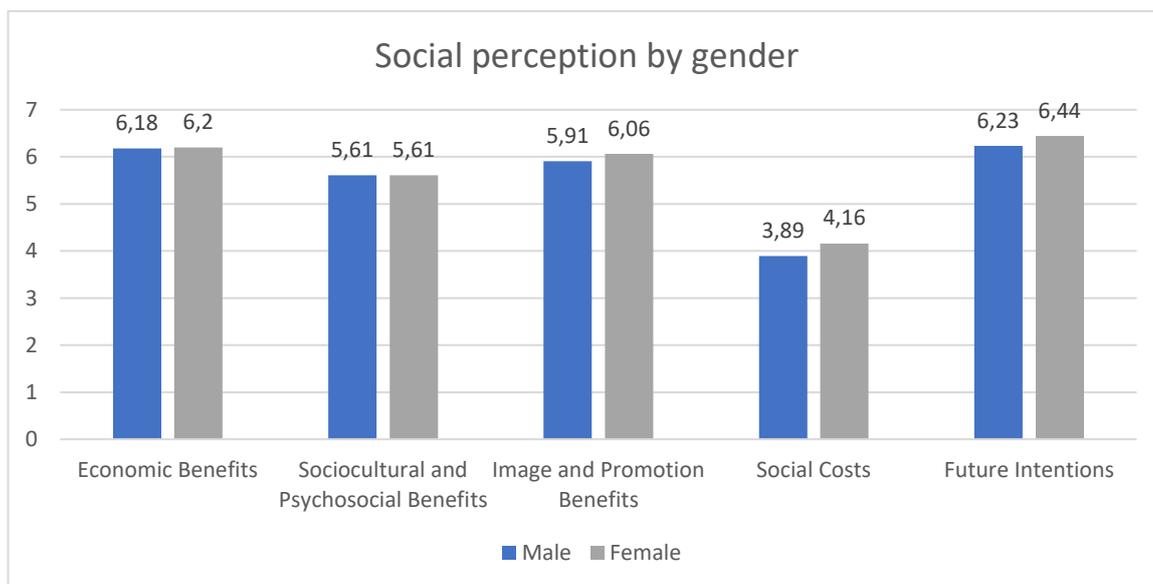


Figure 12. Social perceptions of residents by gender.

Figure 13 shows the differences in residents' social perceptions according to age range. Young residents under 35 years of age rated the socio-cultural and psychosocial benefits and image and promotion benefits dimensions more positively than those in the 36-49 age group, with statistically significant differences. Among the other groups, no significant differences were found, with the social costs dimension obtaining similar scores in the three age groups, with scores of 4.03 points, 4.09 points and 4.06 points respectively.

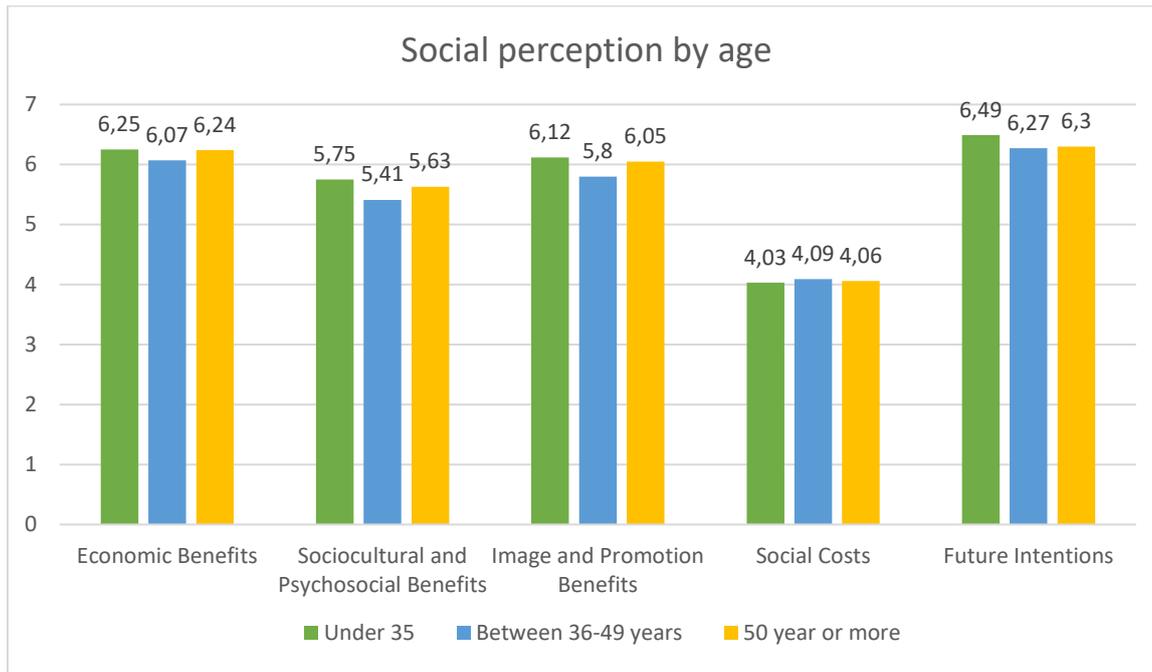


Figure 13. Social perceptions of residents by age.

## 4. TOURISM IMPACT

### 4.1. Introduction

Attending sporting events is one of the most popular options for people to spend their free time and leisure time, with sport being one of the social phenomena with the greatest global repercussions (Andam et al., 2015). According to the World Tourism Organization (UNWTO, n.d.), sports tourism is one of the fastest growing sectors in the industry, with more and more tourists becoming interested in sports activities during their trips, whether sport is the main purpose of the trip or not. In Spain, 66.8% of the population attended a sporting event at least once a year, either in person or through audiovisual media (Consejo Superior de Deportes, 2020), generating a total of 565 million euros in the country during 2019 (Ministerio de Cultura y Deporte, 2022). The potential of the sport and tourism binomial has not gone unnoticed by entities wishing to organise sporting events (Allameh et al., 2015). Sport events bring different types of benefits to the economy, tourism, infrastructure, image or recognition of the host communities. These benefits increase

competitiveness among communities wishing to bid for major sporting events (Añó et al., 2012; Balduck et al., 2011).

One of the first definitions of tourism was proposed by Hunziker and Krapf (1942), who defined tourism as the sum of phenomena and relationships arising from the travel and stays of non-residents, insofar as they are not linked to a permanent residence or to a remunerated activity. Today, this definition is too broad and confusing in view of the great variety of types of tourism that exist.

Thus, in the absence of a consensus on the definition of this term, the World Tourism Organisation (WTO), with the aim of establishing a coherent and common system that would be accepted globally, defined tourism as "activities undertaken by people during trips and stays in places other than their usual environment, for a consecutive period of time of less than one year, for leisure, business and other purposes" (WTO, 1994, p.5).

Among the wide variety of existing motives for tourism is sports tourism, where the main reason for travel is to attend a sporting activity, either to engage in the sport itself or to be a passive observer of it (UNWTO, n.d.). Sports tourism is one of the fastest growing sectors in tourism and one of the most demanded alternative tourism offers of the 21st century (Brown et al., 2010), with more and more tourists showing interest in sporting activities during their trips, whether sport is the main purpose of the trip or not.

Delpy (2003) defines the concept of sports tourism as "those sporting activities or competitions capable of attracting a significant number of visitors for the purpose of participating or attending as spectators" (p. 22). While Deery et al. (2004) incorporates three key elements that a tourist must fulfil to be considered a sports tourism trip: (i) they must be away from the usual residence; (ii) they must be engaged in a sporting activity, whether recreational or competitive; (iii) the purpose of the trip must be to attend that activity, either as a participant or spectator.

Sports tourism has experienced a huge growth worldwide, being a very important part of the tourism industry that attracts thousands of travellers and fans to sporting events every year (Malchrowicz-Moško & Poczta, 2019). Also attending sport events, as a participant or spectator, has become one of the options for occupying people's leisure and free time (Theodorakis et al., 2015). The celebration of a sporting event not only contributes to increasing the number of visitors to the locality, but also promotes the sporting practice of the inhabitants where the event takes place (Añó, 2003). Sporting events of various types and sizes attract tourists as participants or spectators, although this does not mean that all events have to be tourist-oriented (Getz, 2008).

It can be argued that the economic impact is triggered by a tourism impact and that they are therefore closely related. In this regard, Ntloko and Swart (2008) focus their attention on the organisational and tourism impacts of a sporting event, in particular Red Bull Big Wave Africa, on the host city. The results indicate that the event has high entertainment value; it provides economic benefits, particularly for local businesses, promotes community pride and acts as a global showcase. On the other hand, the analysis

indicated that the event caused some disruption, mainly for residents in the vicinity of the event. In addition, negative environmental impacts and social inequalities became manifest.

Alles (2014) argues that sport events are of vital importance to the tourism and economic sector. Sport tourism is one of the fastest growing forms of tourism internationally and it is now well documented that it can contribute to the economic and tourism development of small communities, cities, regions or even countries (Hinch & Higham, 2011). Alles (2014) reported that the organising locality improved its image, making it not only a one-off destination, but also a standout in the annual tourism market, with its consequent economic development and impact.

Vegara-Ferri et al. (2018) conducted another study with the aim of assessing the tourism impact of an event based on participants' future intentions. Some of the results obtained show that future intentions can be predicted with a higher degree of accuracy effectiveness based on the variables of the questionnaire used "destination image" and "Satisfaction", as well as possible recommendations to acquaintances and relatives.

One type of event that is becoming very popular with the development of technology is eSports events. Therefore, Vegara-Ferri et al. (2020) aimed to analyse the tourism impact of the "Iberian Cup 2019" that was organised in Barcelona. Some of the results obtained showed that the most highly rated dimensions of the event referred to satisfaction with the celebration of the event, followed by satisfaction with being in a city with a high cultural and tourist interest. Similarly, it is specified that the attendees found the accommodation and tickets to the event expensive, something that the authors relate to the city itself. Therefore, it is concluded that attendees had a good perception of the event and the host city, although they had some dissatisfaction with the price to pay, which may lead to some reluctance to return to the destination (Kaplanidou, Jordan, Funk, & Ridinger, 2012).

Another work related to satisfaction, loyalty and perceived value of was that of Jeong et al. (2020). As mentioned above, this paper attempts to analyse all these variables in small and medium scale events using Jacoby's (2002) Stimulus-Organism-Response theory. Among other conclusions, this paper admits that both large and small scale events should be considered as effective marketing strategies in order to attract and retain potential and current tourists.

Mention will be made of the study by Mur et al. (2020), which aims to analyse the tourism impact of small-scale sporting events in small towns. With the results obtained, they conclude that a well-organised and valued event produces a positive tourism impact on the organising locality and its surroundings, both economically and in terms of promotion of the organising venue.

To conclude, the work carried out by Ramos et al (2021) has as one of its objectives to measure the impact perceived by athletes caused by a Spanish Championship, such as the "Descenso de los Cañones 2019", on the host territory. The athletes reported positive feelings when expressing their opinion on the type of impact that this type of event has on the host locality. However, compared to other tourism impact studies where residents were

involved, the sample is divided into impacts (favourable, moderate and unfavourable), and even the most favourable data shows lower scores than the participants in this study. Further discussion of this study suggests that athletes perceive that this is an event, and therefore a location, that they want to keep coming back to, which will have a high economic impact.

## 4.2. Objectives

The general objective of this study is to analyse the tourism perception of the attendees of the major European event Sport4Cancer 2023 by comparing the results according gender and age.

The specific objectives are:

- To compare the tourism perception of the attendees of the Sport4Cancer event according to the gender perspective.
- To compare the tourism perception of the attendees of the Sport4Cancer event according to age.

## 4.3. Method

### 4.3.1. *Sample*

The total sample of tourists consisted of 144 tourists who actively participated in the Sport4Cancer sport event. The following figures show the descriptions of the sample of tourists. The sex of the tourists was 54.9% female and 45.1% male, while in terms of gender, female tourists were 54.2% and 0.7% non-binary, with male tourists being the same proportion. Almost half of the tourists were between 31 and 49 years old (46.5%), followed by young people under 30 years old (34.7%) and adults over 50 years old (18.8%). The level of education was represented by 59.0% with university studies, 24.3% with vocational training or baccalaureate, and 16.7% with basic studies. In terms of marital status, 44.4% were single, followed closely by married people with 43.85%. Finally, two thirds of the tourists were actively employees.

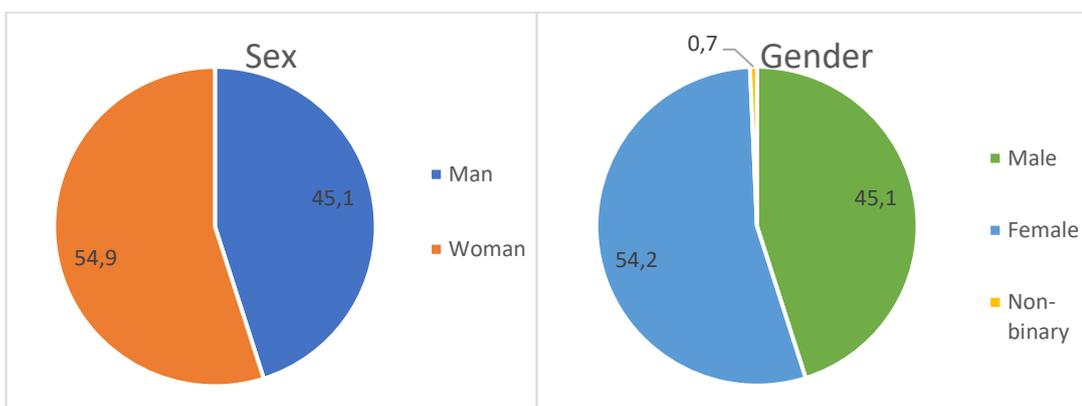


Figure 14. Sex and gender of event tourist.

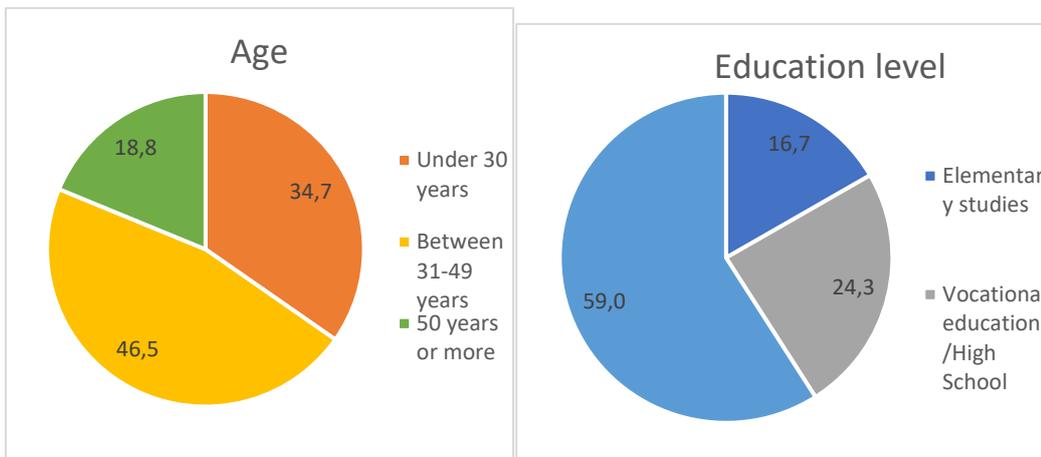


Figure 15. Age and educational level of event tourist.

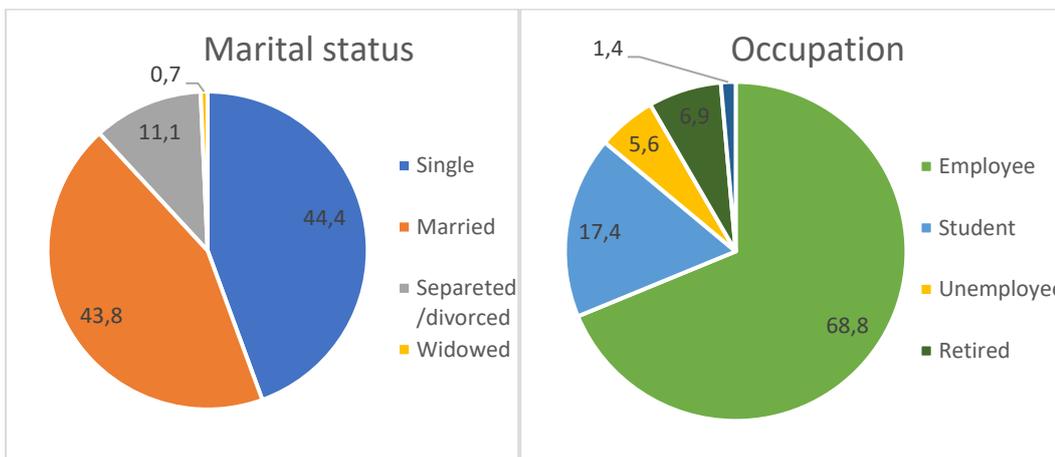


Figure 16. Marital status and occupation of event tourist.

#### 4.3.2. Instrument

The questionnaire to assess the tourism impact of sport events from the spectator and/or competitor's point of view was developed by Vegara-Ferri (2020), consisting of 24 items distributed in X dimensions: perceived quality, destination image, personal, social perception, satisfaction and future intentions. The evaluation scale was a seven-point Likert-type scale from 1.- Strongly disagree to 7.- Strongly agree.

#### 4.3.3. Administration procedure

The questionnaire was administered by means of an online form sent by the coordinating group of the study to the different personal e-mail addresses of the participants in the sporting event, thanks to the lists that the organisations of the sporting events had available when registering for the sporting event and that the participants accepted the conditions for providing their personal data to third parties for this purpose.

The questionnaire remained open from one day after the event until 10 days after the sporting event, during which time participants could voluntarily access the questionnaire online and complete it completely anonymously. The data is computerized directly in an Excel spreadsheet, avoiding errors of registration and omission of answers, as the system does not allow the form to be sent if not all the items are answered.

#### 4.4. Results

The results of the perceived quality of the Sport4cancer event by tourists (Figure 16) showed that the perceived quality of all aspects evaluated scored 6.17 out of seven total points. The highest rated aspect of the whole event was the staff of the organisation (managers and volunteers) with a value of 6.45 points, followed by the overall organisation of the event with 6.24 points. Although the score was moderately high, the event information was the lowest rated aspect of perceived quality.

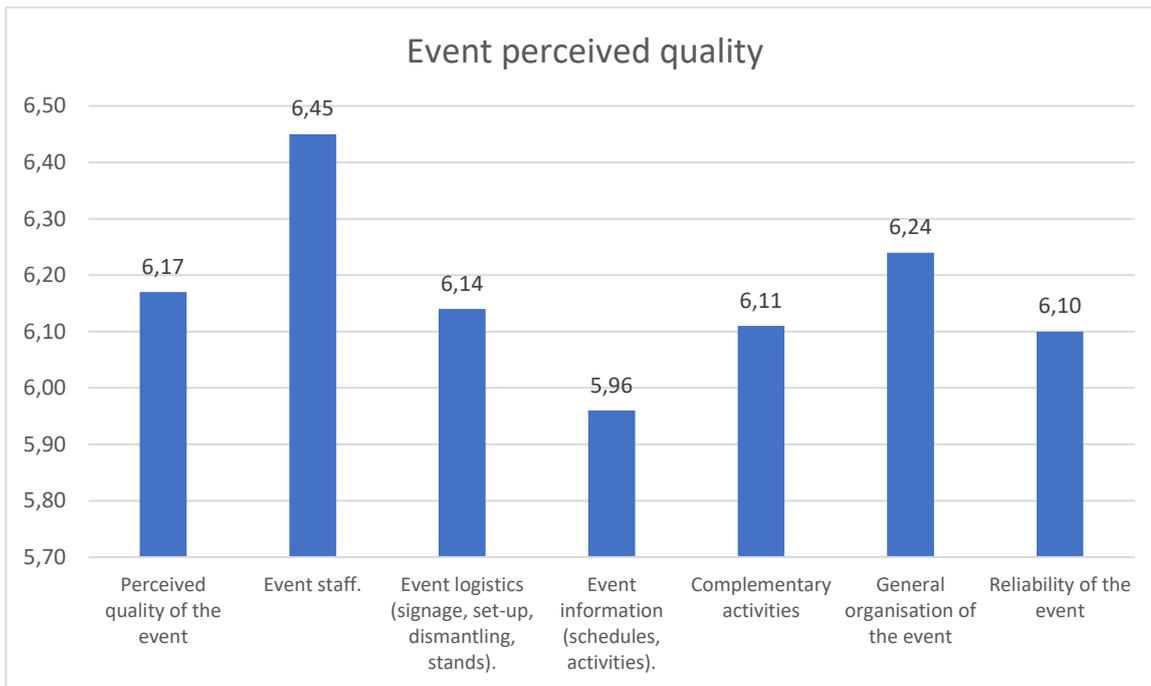


Figure 16. Tourism perception of event tourists.

Figure 17 shows the event information results composed of two aspects. On the one hand, the ease of obtaining event information with a score of 6.05 and the updating of event information with a value of 5.90.

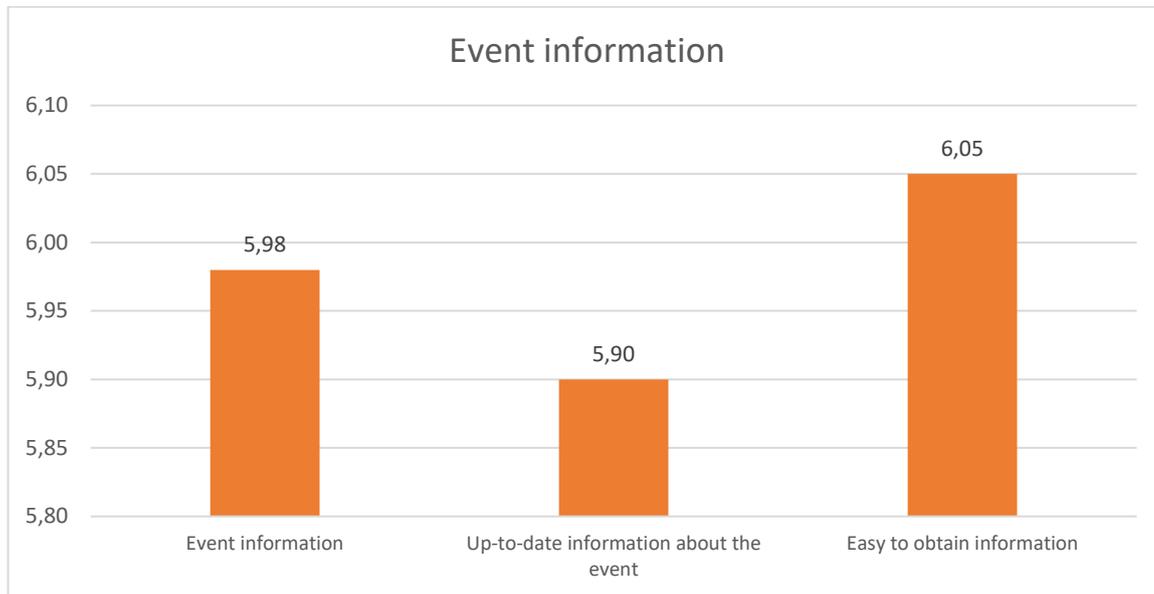


Figure 17. Event information perception of event tourists.

The Sport4Cancer event staff (Figure 18) showed that all aspects evaluated had scores above six points. The aspect that tourists highlighted the most was the friendliness of the staff and volunteers (M=6.53), with the effort of the event staff being the worst evaluated aspect with a high score of 6.33 points.

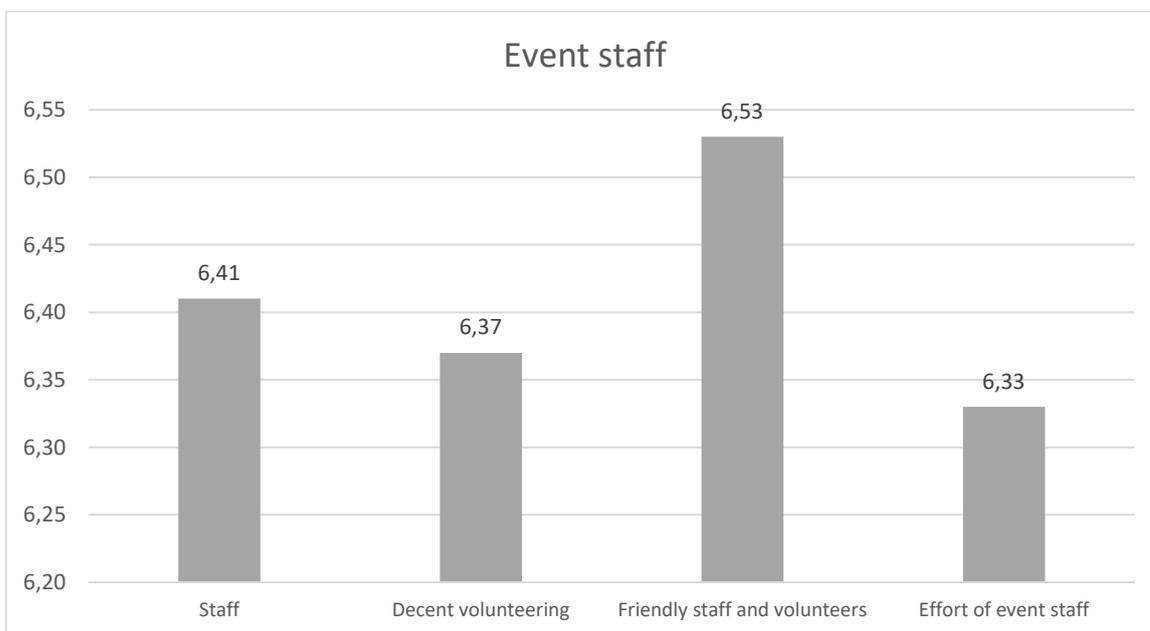


Figure 18. Event staff perception of event tourists.

The social perception of the tourists (Figure 19) also showed like the staff dimension of the event values above six points in all items. The aspect that stood out the most among the tourists was the atmosphere of the Sport4Cancer event (M=6.47) followed closely by

the opportunity to interact with other attendees (M=6.43). On the contrary, the aspect with the lowest score was the excitement for the event with a value of 6.29 points.

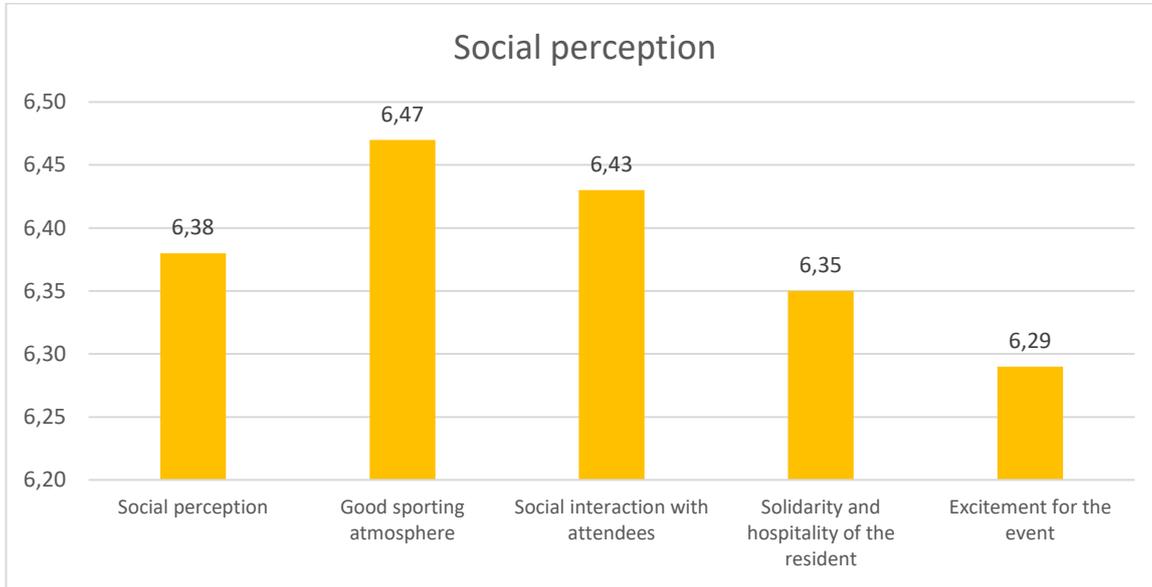


Figure 19. Social perception of event tourists.

Figure 20 shows the results of the destination image aspects. The leisure opportunities offered by the host locations of the Sport4Cancer event was the most relevant aspect (M=6.19), followed by the interesting areas to visit in these locations with a value of 6.13 points. However, with a moderate score the tourists indicated their intention to make publications on their social networks about the event or host location.

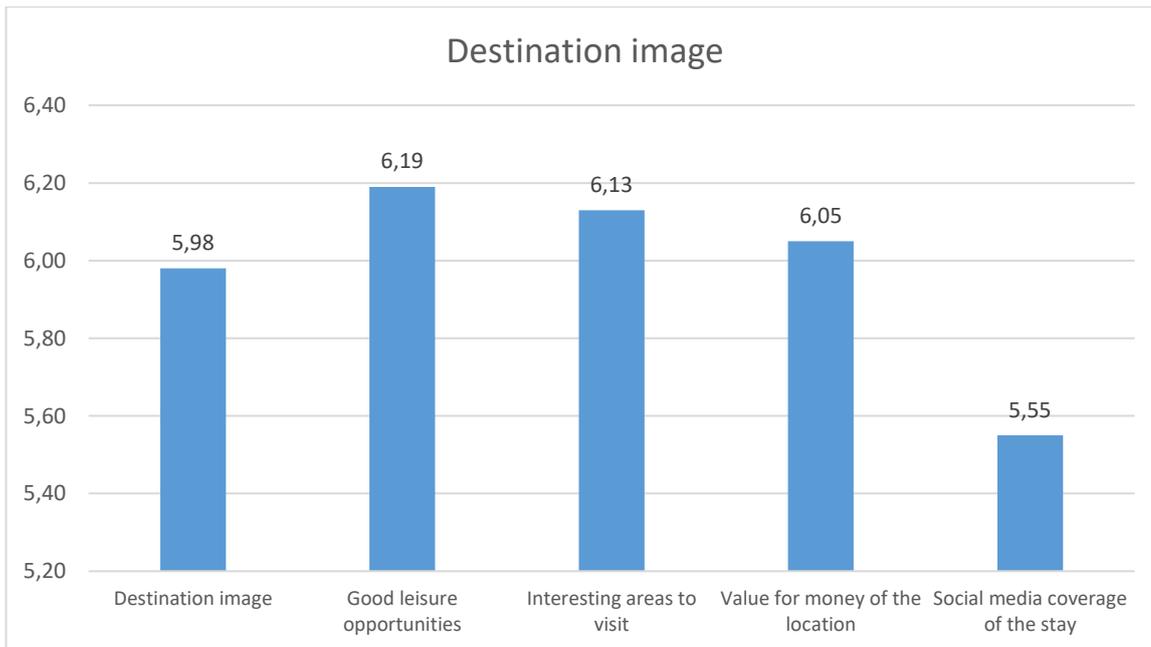


Figure 20. Destination image perception of event tourists.

Tourist satisfaction with the Sport4Cancer event (Figure 21) had high values, especially the importance they attach to the fun of the destination (M=6.49). On the other hand, the fun of the event had a value of 6.37 points and the good feelings with the experience of attending Sport4Cancer had 6.21 points.



Figure 21. Satisfaction of event tourists.

Finally, tourists' future intentions showed high values (Figure 22). Intention to repeat a similar experience was the most highly rated aspect (M=6.23), while recommendation to others scored 6.15 points.

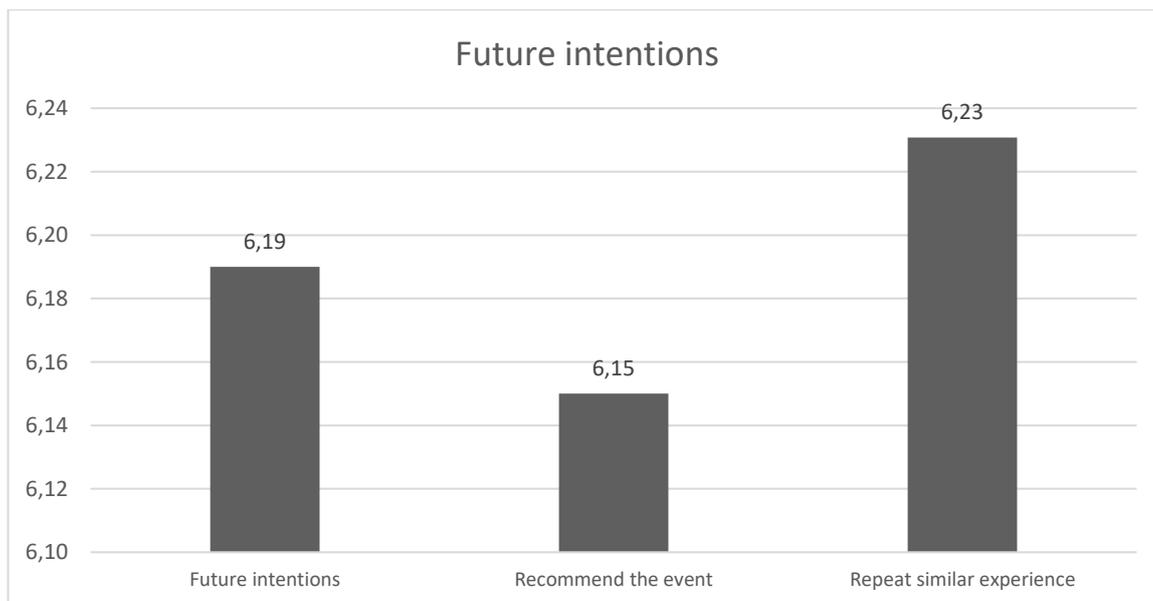


Figure 22. Future intentions of event tourists.

The results of the perception of tourism impact by attending tourists compared by gender are shown in Figure 23. Overall, the results show that female tourists had a better tourism perception than male tourists, except for event information. For female tourists, the highest rated dimension was the social perception with a score of 6.57 points, followed by the personal dimension of the event with 6.50 points. On the other hand, they rated the event information less highly with a moderate-high value (M=5.95).

While male tourists had the opposite perception as female tourists. Event staff was the highest rated dimension followed by social perception with 6.31 and 6.19 points respectively. Destination image was the dimension worst perceived by male tourists (M=5.83).

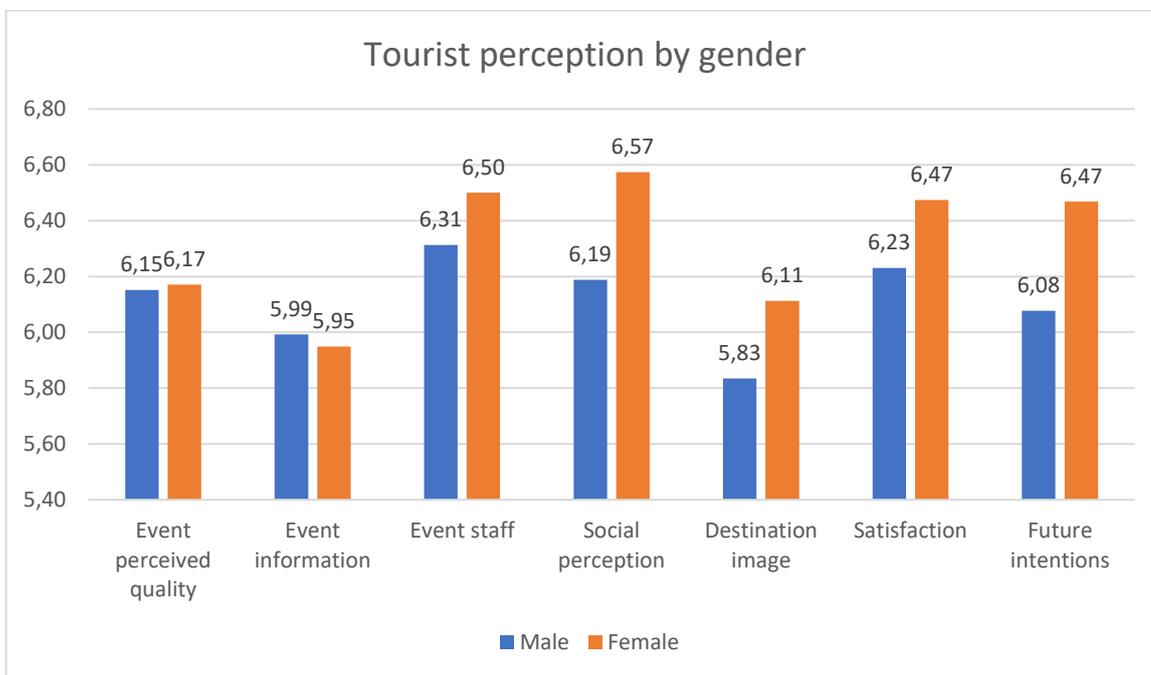


Figure 23. Tourism perception by gender.

Finally, the results of tourism perception according to the age of the tourist (Figure 24) showed diverse results. For example, event staff was the factor with the highest scores for tourists over 50 years old, followed by social perception with 6.52 and 6.44 points each. For tourists aged 31-49 years it was the other way around, with social perception scoring 6.48 points and event staff scoring 6.46 points. Younger people had the same pattern as older adults. Event information was the worst rated aspect for all age groups, followed by destination image. All groups had high satisfaction and future intentions towards the Sport4Cancer event.

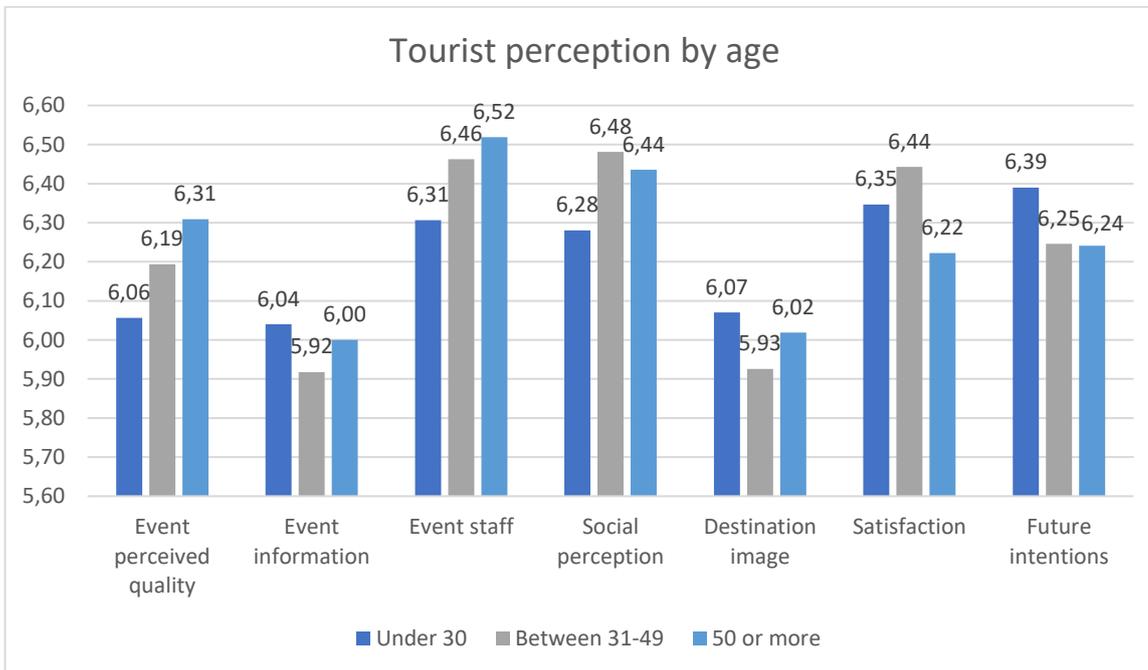


Figure 24. Tourism perception by age.

## 5. PERCEIVED QUALITY

### 5.1. Quality contextualisation

When we talk about quality, a term is mentioned that does not have a concrete and exact definition. Quality is a global concept that has emerged in order to respond to the various changes in the business sector. The current definitions of quality do not replace old ones, but serve to complement and add to the existing conceptualisations. Each one will be used in the most convenient way according to its business vision and objectives.

Therefore, as there is no single concept or definition of quality, we can mention that evolution is subject to a broadening of the concept of quality (Claver et al., 1999). Numerous authors have provided different definitions and concepts of quality, such as the following:

Quality is the main concept and is defined as the characteristics of a service, activity or product that enable customer satisfaction. Perceived quality is therefore the set of characteristics that make an event satisfactory and meet the expectations of all event participants.

Afthinos et al. (2005) define it as the difference between consumers' perception of service quality from previous experiences compared to the perception of actual service performance ex-post. For Vegara-Ferri et al. (2021, p. 572) quality is defined as "the perception that a consumer develops about a service, in comparison with what he/she expected from it", "being better valued by local participants than by tourists" (Vegara-Ferri et al., 2021, p. 572). being "more highly valued by local participants than by tourists".

Event quality is a crucial issue when it comes to sports tourism and service quality is one of its most important components. Service quality has received much attention in recent years and is recognised as a critical factor due to the influence it has on the psychological and behavioural responses of tourists. It is defined as the overall perception or impression that customers have about whether an organisation and its services are inferior or superior compared to other options available in the market. Current literature defines event quality as an overall judgement made by the spectator or participant regarding the value of the event. (Jeong et al., 2019).

## 5.2. State of the art

The scientific literature on sport marketing is very extensive in management, especially studies that focus on the evaluation of the perceived quality of sport services. However, the field of sport events has not been studied as much previously and has received a later interest from researchers. Furthermore, it is important to note that within the study and analysis of perceived quality in sport events there is a great diversity of studies. It should also be noted that there are authors who have adapted the SERVQUAL tool and others who have developed their own evaluation tool, with the aims of the service to be analysed, adjusting it to the characteristics and scale of the event.

The first studies of perceived quality in sport events date back to the end of the last millennium. O'Neill et al. (1999) conducted an analysis of the perceived quality of a basketball game using an adaptation of the SERVQUAL model, considering only three dimensions: tangible elements, staff and other services. The results indicated that the spectators analysed were satisfied with the service they received at the games. Similarly, there were no unfavourable opinions to stop attending this type of event, with a high intention to recommend attendance.

Following this line, Rodríguez et al. (2003) adapted the SERVQUAL scale to football events, reducing it to 13 items. For their part, Navarro-García, Reyes-García and Acedo-González (2014) worked to glimpse the influence of the quality of the service of a football sport event and obtained three main conclusions: a) spectator satisfaction is determined by tangible elements, such as infrastructures, and intangible elements, such as the emotion of a match; b) the quality of service positively determines the partial satisfaction experienced by the spectator linked to the football event; and c) the overall satisfaction of the spectator is directly influenced by the satisfaction associated with specific aspects of the sporting event, and indirectly by the quality of the services provided.

In another line of study and the link between satisfaction and loyalty, Kao et al. (2007) mention that a large part of Taiwanese citizens choose to watch sporting events on television. This information is used to analyse what makes live fans continue to attend matches in person. Kao et al. (2007) conclude that the three experiential aspects of surprise, participation and immersion have a direct relationship on intentions and loyalty, which are manifested in experiential emotional experience, experiential attitude and experiential satisfaction.

If we look for information comparing the variables of perceived quality and economic impact we find the work of Case et al. (2018). This study aimed to analyse whether there is a relationship between the perceived quality of an event and its organisation and the economic expenditure generated by the athletes. The conclusions they draw is that there is a direct relationship between the perceived quality of an event and the economic expenditure of the participants, with this the authors consider mentioning that a good capital investment in the event can result in economic benefits generated by the athletes.

A study conducted by Ornelas-Martínez (2019) aimed to evaluate the perceived quality and satisfaction of football spectators of the women's mx league. Among its conclusions, it shows that spectators who watch the match live value the services offered very positively, and in the same way, they are satisfied with the sporting experience, as they do not demand a favourable result, but rather dedication and effort; this is an important contribution to achieving the satisfaction and loyalty of the club's social mass. On the contrary, spectators also point out the poor state of the facilities, both in terms of conservation and cleanliness of the facilities, which leads to a decrease in customer satisfaction and potential disloyalty (Mátic et al., 2017). Lastly, Ornelas-Martínez (2019) emphasises the importance of segmenting spectators and potential spectators in order to create personalised marketing strategies.

In the same vein, Theodorakis et al. (2019) conducted a study in which they sought to answer three questions: (a) how the quality of event services affects overall event satisfaction; (b) how event satisfaction affects the enjoyment of merchandising purchases; (c) how this enjoyment affects the participant's perception of quality of life. The results indicated that event evaluation, in terms of quality and satisfaction, are interrelated and affect happiness with merchandising purchases. Furthermore, they find evidence linking shopping happiness with quality of life. Similarly, the study contributes to the literature on leisure and sport management by empirically demonstrating that participation in quality sport events can significantly improve participants' quality of life.

Jeong and Kim (2019) conduct a study that aims to explore the structural relationships between quality, destination image, perceived value, tourist satisfaction and destination loyalty, with an emphasis on the mediating effect of tourist satisfaction on the relationship between destination image and destination loyalty, and between perceived value and destination loyalty in the context of small-scale sporting events. The results showed significant impacts on: event quality, destination image and perceived value on tourist satisfaction; destination image, perceived value and tourist satisfaction on destination loyalty and demonstrated destination loyalty; and tourist satisfaction mediated entirely the relationships between destination image and destination loyalty, and between perceived value and destination loyalty.

On the other hand, Givi, et al. (2021) worked with the objective of analysing the behavioural intentions, satisfaction and perceived quality of the spectators of the Asian Volleyball Championship. In this research, very interesting findings were obtained, such as: a) the quality of the services of the event, as well as the main product (the matches), had a significant effect on the perception of quality; b) satisfaction with the main product can

predict behavioural behaviours and c) on the contrary, the effect of service satisfaction on behavioural intentions was not significant.

Over time, the study of the quality of sporting events has become increasingly interesting, but most research focuses on the perception of the spectator, and not so much on the athlete or user actively involved in the event. There is little scientific literature on this subject. Likewise, some of the works that have been found in this field of knowledge will be mentioned below.

The first study we found was that of Bebtosos and Theodorakis (2003) in which the satisfaction of the athlete is examined at the competitive, psychological and sporting environment level. The sample was taken from the Youth Team Handball Finals Tournament in Greece with more than 250 players. The results indicated that the players were satisfied with the performance of their leaders and with their individual performance. No gender differences were obtained; and it should be noted that the more training sessions per week, the higher the level of satisfaction in the event.

The study carried out by Angosto, et al. (2016) was conducted within the framework of popular sport. The research aimed to assess the perceived quality of the participants of two editions of popular middle-distance races, examining the different characteristics of this type of event from one edition to another. The tool used for data collection was CAPPEP. The results showed that participants perceived a worsening of quality in the second event; the dimension of personal interaction was the best evaluated item of all in both editions, both in general and for men and women; finally, the perceived quality assessment estimated by women was higher in both editions and dimensions evaluated.

Ma and Kaplanidou (2019) conducted a study relating three dimensions of the perceived quality of an event: Quality of Infrastructure, Quality of Interaction and Results obtained; with the intention to practice physical exercise regularly, quality of life and intentions to repeat the event. The sample was drawn from two different events, one from Taiwan and one from Greece. Among other findings, the results revealed that the infrastructure quality of both events indirectly influenced "intentions to repeat the event" through "quality of life" benefits.

Montesinos-Saura et al. (2018) work on a study that aims to measure the perceived quality and value, as well as the satisfaction and future intentions of participants of a swim crossing event. The results show that within the perceived quality of the event, interactions with volunteer staff are the most highly rated, followed closely on the overall scale by satisfaction and future intentions. Another interesting fact to note is that participants with less experience in sport events perceived everything in general with a higher value.

Another work related to the perceived quality of the athlete was carried out by González (2019), which was articulated with the CAPPEP tool. This study aimed to evaluate the perceived service quality of the participating athletes and correlate it with sociodemographic variables in the XVII Half Marathon of 2018 in order to improve in future

editions. The perceived quality of the athletes was defined as "good", and could be "excellent", as this is what the athletes' sporting level demands.

In relation to the participant's perception, Vegara-Ferri et al. (2021), carried out a study in which the objective was to evaluate the perception of the participating sports tourists on the quality of the event, socio-cultural perception, destination image and future intentions, comparing the possible differences between national and foreign tourists participating in an international nautical event. Some of the conclusions obtained were that the highest rated item is the socio-cultural perception followed by the intentions to return to the event and to the host town. On the other hand, the perception of the quality and image of the event are the worst rated of the event.

A study carried out by Madruga-Vicente et al. (2021), has as one of its objectives to analyse the quality perceived by trail runners and to identify the socio-sportive factors that determine the quality of the event. The data collection was done with the (CAPPEP) of Angosto et al. (2016a) and as results it was determined that: some of the conditions that determine the quality of an event are related to socio-sporting factors of the athlete, such as their level of studies or their federated status; some of the factors of higher perceived quality in this event were the treatment with the staff as well as the factors inherent to the development of the event; however, the worst rated factor was the complementary services to the event.

The study by Milovanovic et al. (2021) aims to analyse the interactions of destination image, event quality and behavioural intentions, including all of them in an integrated model. The sample was drawn from the Sambo World Cup 2021. Some of the results show that perceived event quality is a key element as a predictor of future intentions. Since the sample was taken from a professional competition, the sport competition was one of the most important items. Another interesting finding was the importance of the destination image, as it directly and indirectly affected future intentions.

### 5.3. Objectives

The general objective of this study is to analyse the perceived quality of sport activities of the major European event Sport4Cancer 2023 by comparing the results according gender and age.

The specific objectives are:

- a) To compare the perceived quality of sport activities of the Sport4Cancer event according to the gender perspective.
- b) To compare the perceived quality of sport activities of the Sport4Cancer event according to age.

## 5.4. Method

### 5.4.1. Sample

The sample comprised 173 participants with a mean (M) age of 43.71 years and a standard deviation (SD) of 9.4. Of these 173 respondents, 115 were male (66.5%) and 58 were female (33.5%). In terms of their level of education, 27 had basic education (15.6%), 54 had completed high school or vocational training (31.2%), and 92 had a university degree (53.2%). In terms of their current employment situation, 148 are employed or working (85.5%), only 3 are unemployed (1.7%), 13 are students (7.5%), 6 are retired (3.5%) and 3 are housewives (1.7%).

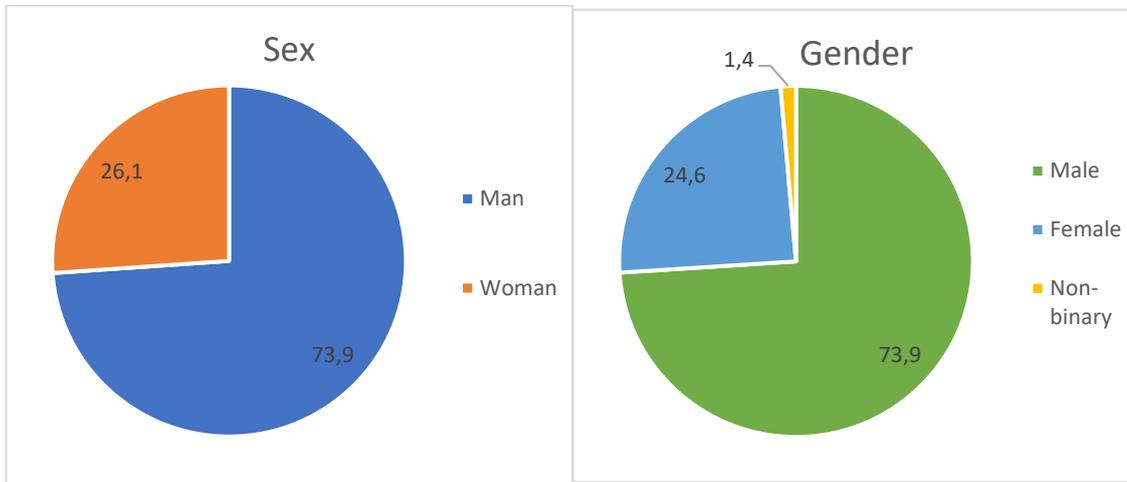


Figure 25. Sex and gender of event participants.

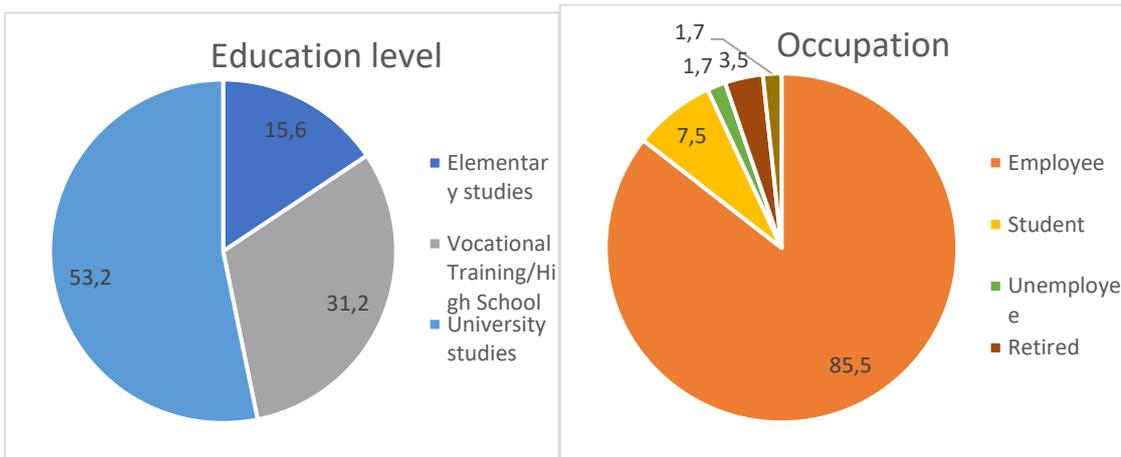


Figure 26. Education level and occupation of event participants.

#### 5.4.2. Procedure

The methodology used to carry out this research study initially involved contacting the Sport4Cancer event organisers to inform them of our interest in carrying out an evaluation study of the event, as well as to inform them of the objectives and evaluation tools to be used.

Once consent had been obtained from the organisation, the survey was disseminated online. Nowadays, registration for participation in events involves prior registration by e-mail, so that after the event the e-mail addresses of both participants and spectators are available and informed consent to participate in the collection of information can be obtained.

The data collection was carried out by creating an online questionnaire through the survey application of the University of Murcia. This questionnaire was sent to event participants by email 24 hours after the end of the event. A second reminder was sent five days after the event. The response period for the questionnaire was ten days after the first mailing. To obtain this mailing and participate in the study, participants had to accept the informed consent provided. In this mailing, the objective of the study was informed, as well as the inclusion of the link to access the study.

#### 5.4.3. Instrument

The instrument used for data collection was a quality questionnaire, Participant Perceived Quality in Popular Events (CAPPEP) developed by Angosto et al. (2016), consisting of two scales, one of them "Perceived Quality", composed of 19 items, divided into 5 dimensions: communication, staff, environment, logistics and complementary services. On the other hand, a second scale, "Global Quality", or "General Quality", composed of 14 items, divided into the dimensions: perceived quality, perceived value, satisfaction and future intentions. The rating scale used for both was a Likert-type scale with values from 1 to 7, where 1: Strongly disagree and 7: Strongly agree.

### 5.5. Results

Figure 27 shows the data obtained from the quality questionnaires completed by the athletes who participated in Sport4Cancer, from whom information was collected on the aforementioned items. The scale to be analysed is the one called "Perceived quality", one of its dimensions, "Event communication", is made up of 3 items, the best valued being simplicity when registering (M=5.75); on the other hand, information for the development of the competition is the worst valued (M=5.34).

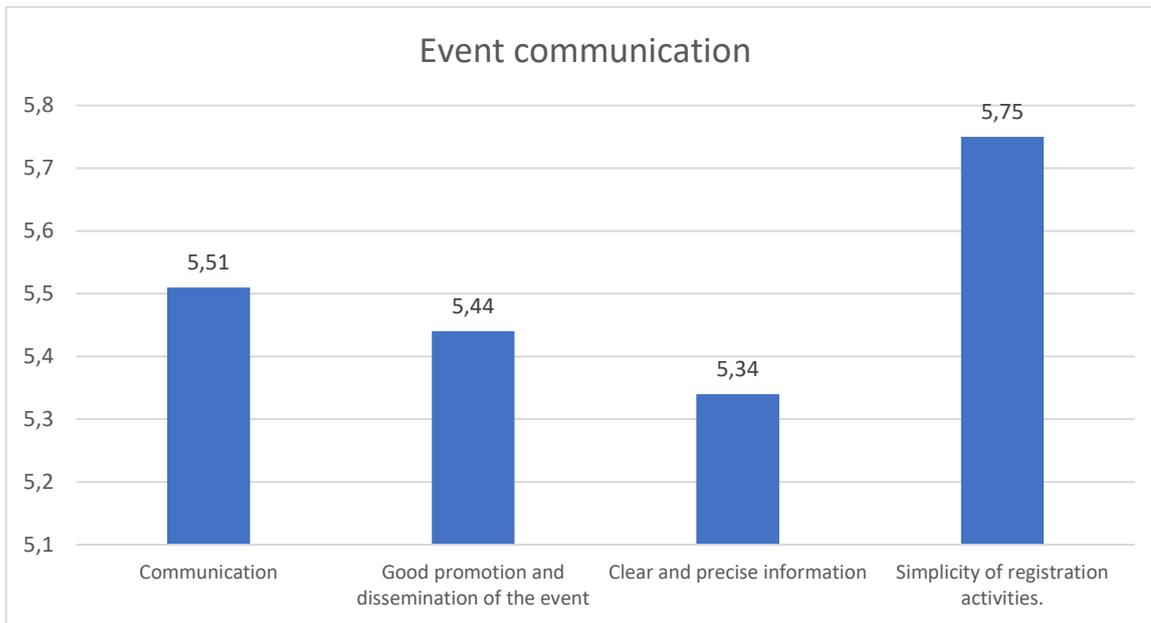


Figure 27. Event communication of Sport4Cancer.

The next dimension "Event staff" (Figure 28), made up of 4 items, the highest rated item is "The organisation's staff is willing to help" (M=5.84); while the lowest rated item is "I easily picked up my race bib without much waiting" (M=5.66).



Figure 28. Event staff of Sport4Cancer.

The "Environmental" dimension (Figure 29), made up of 3 items, has the item of the route that respects flora and fauna as the best perceived (M=5.79), while prevention and control measures with respect to environmental impact obtained the lowest score (M=5.6589).

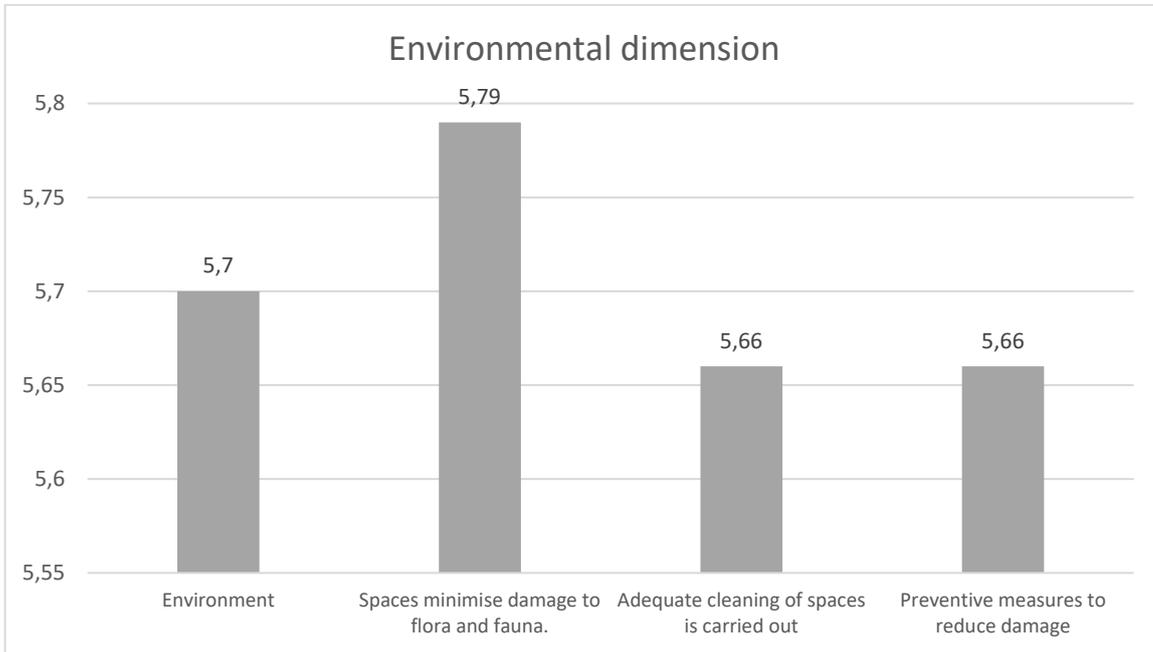


Figure 29. Environmental dimension of Sport4Cancer.

Regarding the "Event logistics" dimension (Figure 30), made up of 5 items, the best rated item is the good signposting of the event activities and its safety (M=5.72), on the other hand, the visibility of the podium and the results for all spectators is the worst rated (M=5.40).



Figure 30. Event logistics of Sport4Cancer.

To conclude the descriptive analysis of event perceived quality, the "Complementary services" dimension (Figure 31) has 4 items. The item with the highest score was "The runner's bag is adequate and complete" (M=5.69). The worst rated item, on the other hand,

was "The race has sufficient support services (toilets, changing rooms, cloakroom, massage areas, stands, etc.)" (M=5.34).

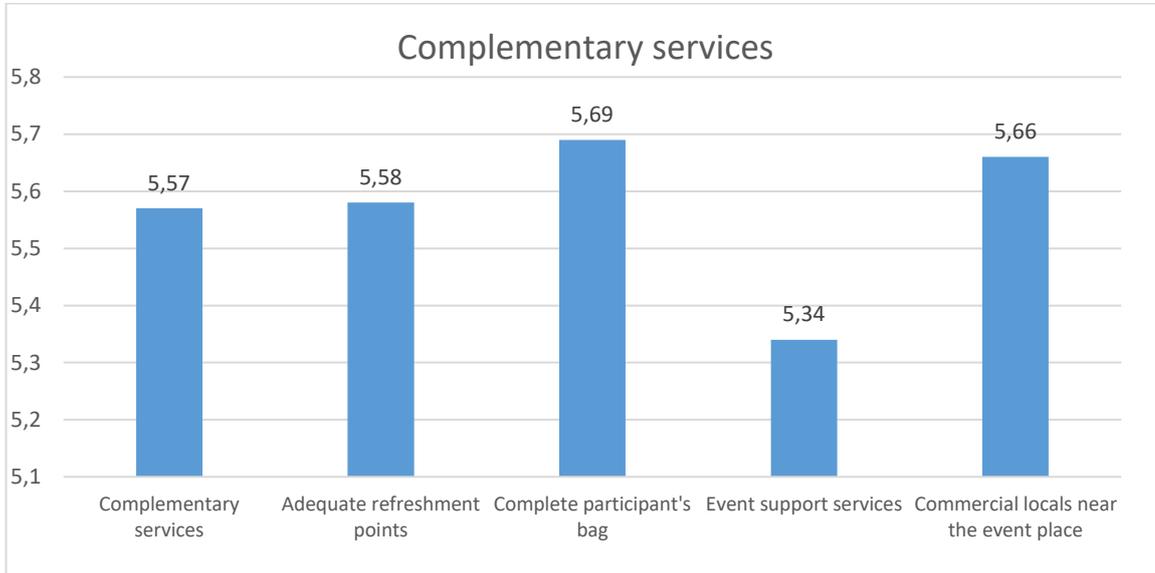


Figure 31. Complementary services of Sport4Cancer.

The dimension "Global perceived quality"(Figure 32) is made up of 4 items, with staff involvement being the most highly rated (M=5.75), while the quality of the degree course is not considered to be superior in comparison with other, better known degree courses (M=5.58).

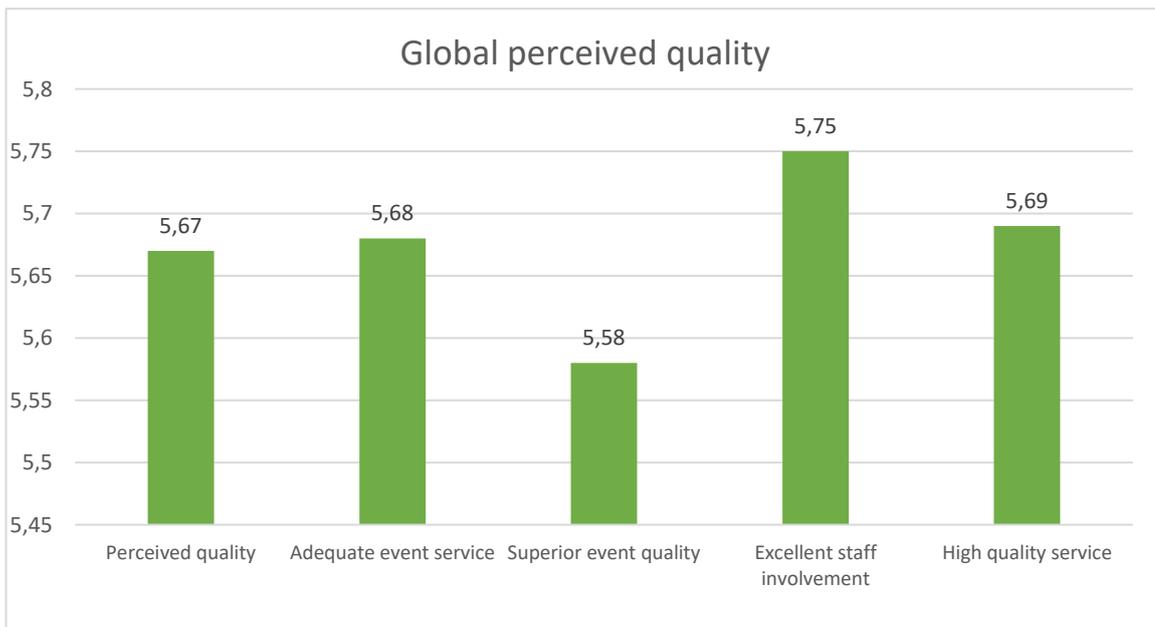


Figure 32. Global perceived quality of Sport4Cancer.

With regard to the dimension "Perceived Value"(Figure 33), which has 3 items, a clear superiority of assessment was found in the item "I obtained great value from attending this event" (M=5.6), while the item that received the worst assessment among the respondents was the reasonable price paid in relation to the event (M=5.53).

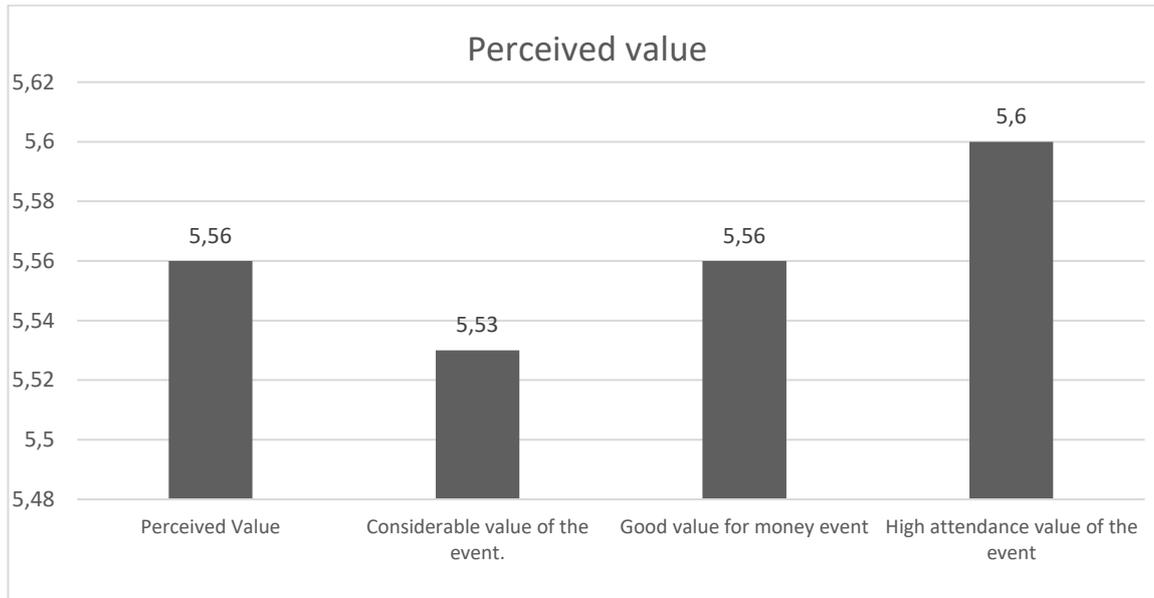


Figure 33. Perceived value of Sport4Cancer.

To conclude with the analysis of the "Global Quality", the "Satisfaction" dimension (Figure 34) has 4 items, with the highest score being participants' liking (M=5.81), and the lowest score being satisfaction with the results obtained (N=5.68).

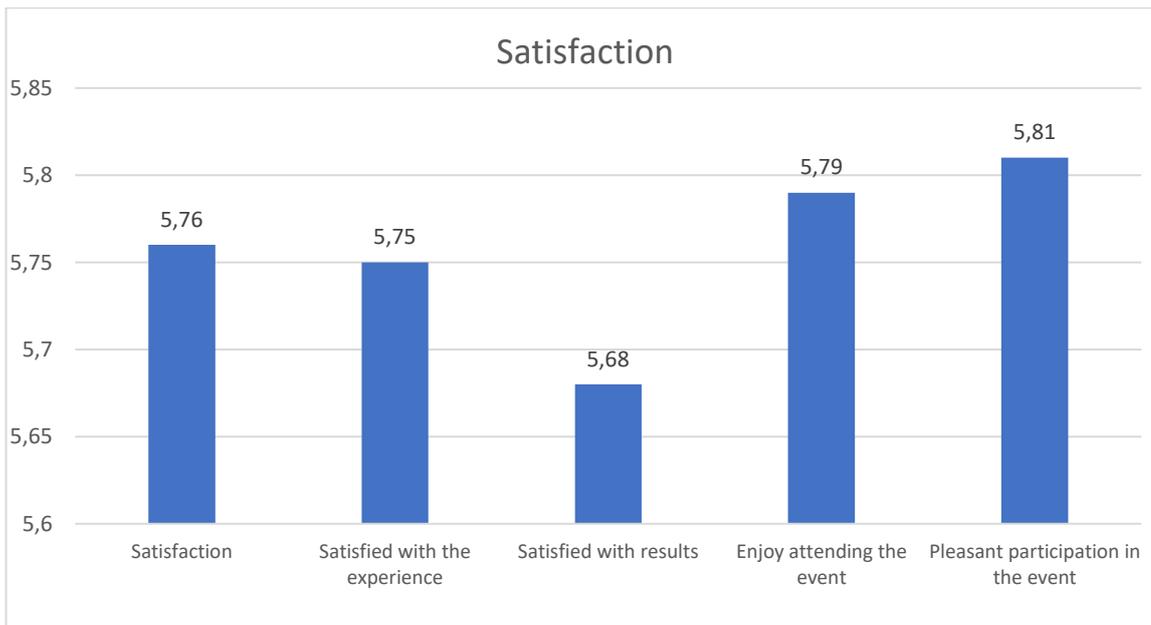


Figure 34. Satisfaction of Sport4Cancer.

The next and last dimension of this survey is "Global Quality", in which the sub-dimension "Future Intentions" (Figure 35) is the best rated (M=5.79), with 3 items, the highest rated being the recommendation to family friends or other people (M=5.81), and the worst, repeating if the opportunity arises to attend a similar sporting event (M=5.75).

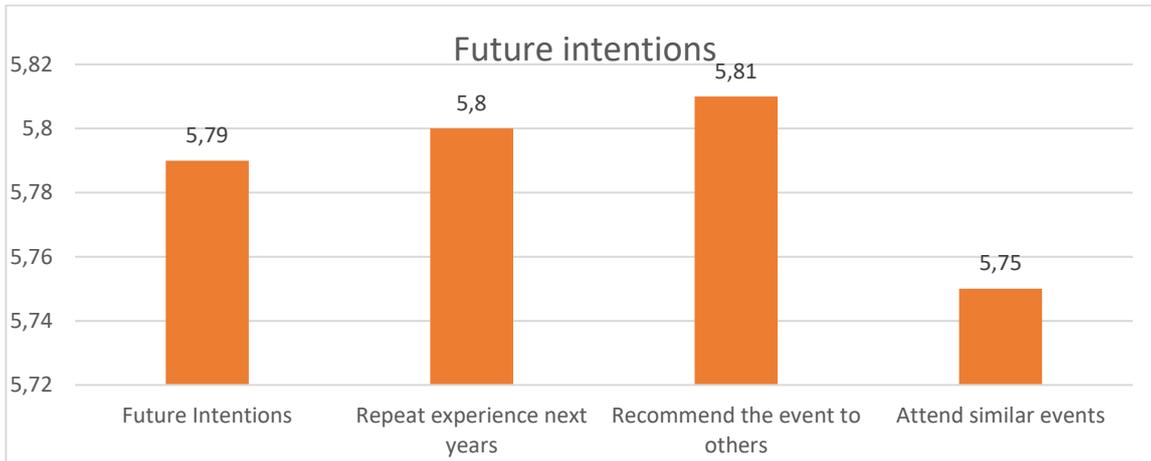


Figure 35. Future intentions of Sport4Cancer.

In the following, the data collected will be analysed from a gender perspective (Figure 36). In general terms, it was observed that women had a higher perceived quality of the event compared to men. Both genders differed in the rating of the items, both the worst and the best rated. On the one hand, women highlight the item "Satisfaction" (M=5.86) and on the other hand, men choose to highlight the item "Future Intentions" (M=5.76). If we look at the worst rated item, women rank "Communication" as the lowest (M=5.55) while for men it is "Logistics" (M=5.46).

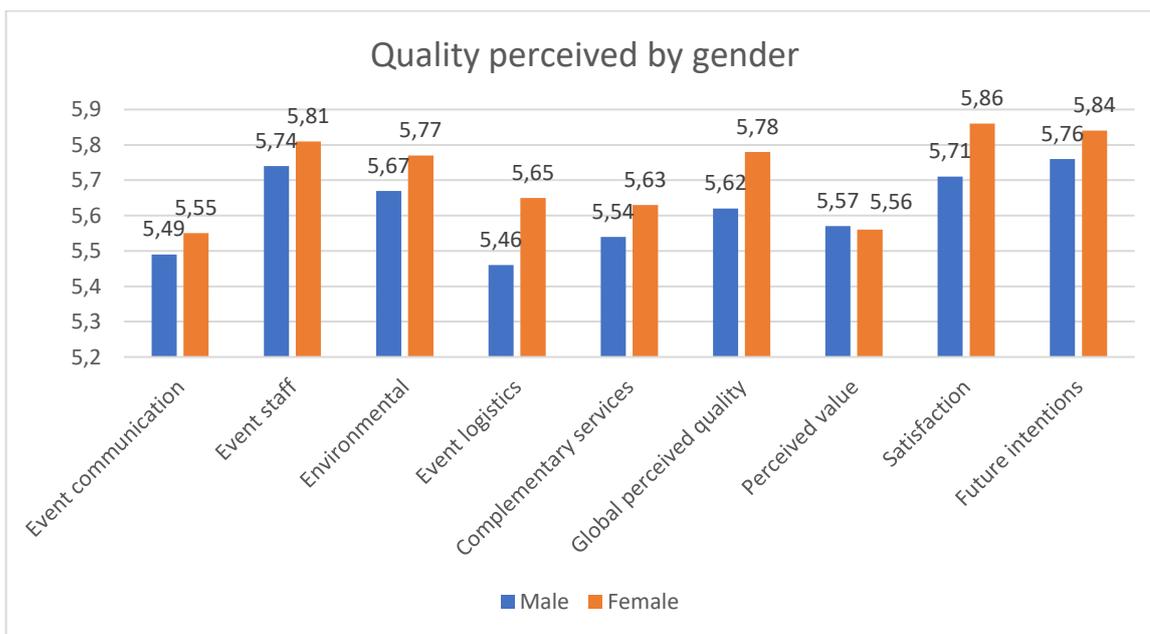


Figure 36. Perceived quality of Sport4Cancer by gender.

Finally, the last analysis compares the perceived quality according to age (Figure 37). Athletes under 40 years of age were the ones who best perceived the quality of the event in general, followed by those over 50 years of age and finally those between 41 and 50 years of age. The best rated dimension by all athletes was "Future Intentions" (Under 40 years= 5.86 ±0.3; Between 41 and 50 years= 5.71 and Over 50 years= 5.84), while all agreed that the worst rated item was "Communication" (Under 40 years= 5.51; Between 41 and 50 years= 5.47 and Over 50 years= 5.59).

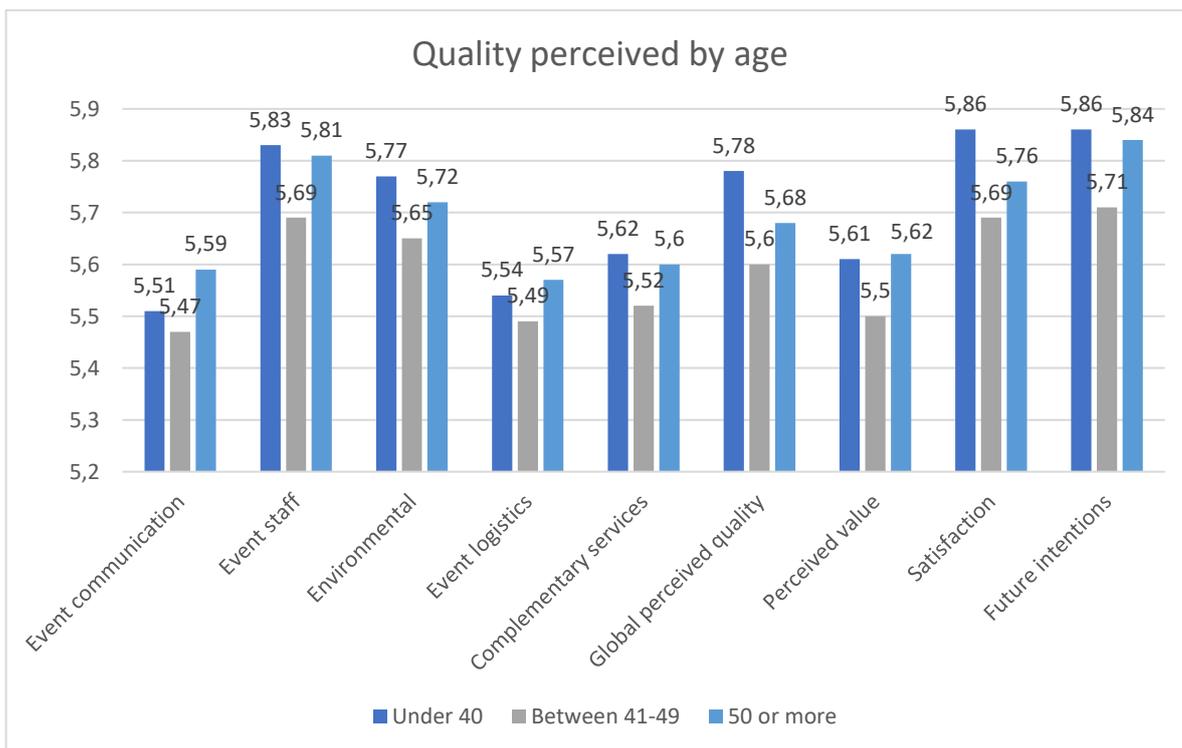


Figure 37. Perceived quality of Sport4Cancer by age.

## 6. SPORT VOLUNTEERING

### 6.1. Introduction

Currently, volunteering has a great relevance in society as it is one of the major social phenomena at a global level, especially in certain countries. Volunteering can be a great psychological help as it can increase the level of well-being of both the individual and the community (Ortiz & Henriques, 2013). Every year millions of people selflessly dedicate a great deal of their time and effort, putting their knowledge and skills to the benefit of others in the communities in which they work. Although there is no universal concept, society has a general understanding of volunteering (Lockstone-Binney et al., 2010).

Other sources indicate that volunteering also influences economic, social and community development in societies where it takes place (Mathou, 2010; Tapia, 2006). The economic benefits of volunteering can be quantified in two ways:

(i) by estimating the dollar value of volunteer time spent, (ii) by quantifying the number of hours spent and full-time jobs (Independent Sector, 2016). For example, volunteering enables 8.5 people to play sport, with the cost per person estimated at £1,127 (Williams and Jacques, 2014). On the other hand, the social benefits of volunteering improve society, although it is difficult to assess and determine these benefits due to their intangible nature (Independent Sector, 2018; UNDP, 2003).

On the other hand, according to the United Nations (UN), volunteerism can be an important enabler of sustainable development. The role of sport has been recognised as fundamental in contributing to the advancement of the Sustainable Development Goals (SDGs) proposed by the UN, as it not only promotes respect and tolerance, but also supports the empowerment of women and youth, and contributes to education, health and social inclusion. According to the UN, for sustainable development, major sporting events can be a tool that contributes to the advancement and growth of social, economic, educational and environmental opportunities through peace and human rights (Ki-Moon, 2016).

Volunteer motivation is one of the most studied constructs in the scientific literature (Angosto et al., 2021). Motivation allows us to understand why people act in a particular way. In other words, it refers to the inner state that causes people to behave in a certain way that leads them to achieve a goal (Certo, 1983). According to Miskel (1982) motivation is a set of "complex forces, drives, needs, states of tension or other mechanisms that initiate and maintain voluntary activity toward the achievement of personal goals" (p. 137).

Motivation is a key construct when trying to understand an individual's decision to become a volunteer. It has been suggested that individuals volunteer for altruistic reasons (Alexander et al., 2015). However, according to Welty Peachey et al. (2014) volunteers present their motives as values based on socially accepted reasons when in reality their motives are not so altruistic. Wicker et al. (2018) suggest that willingness to volunteer indicates that those who already contribute a lot of volunteer work are willing to contribute even more.

The United Nations Program for Development (2003) indicates that the motivation is one of the most important factors when it comes to voluntary participation, and is the main factor explored in the research in the sports context, together with its influence on the decision to be voluntary (Bang & Chelladurai, 2009; Chiu et al, 2016; Clary et al., 1998; Dickson et al., 2020; Downward et al., 2020; Farrell et al., 1998; Hallmann et al., 2018; Khoo et al., 2011; B. J. Kim et al., 2019; Kim, 2018; MacLean & Hamm, 2007; Pauline, 2011; Schlesinger & Gubler, 2016; Strigas & Jackson Jr, 2003; Van den Berg et al., 2015). There are two categories in the theoretical categories that classify factors that motivate an individual to be voluntary and remain in the organization: i) heterocentric, benefits focused on others, this is, benefits that get for others and ii) self-centered, benefits that want to get themselves (Omoto et al., 2010).

In turn, satisfaction is a variable that has been extensively researched in different disciplines. In particular, it has been studied in the field of paid work since the 1950s (Kemp, 2002). Several authors claim that this variable is linked to motivation and retention (Bang &

Ross, 2009; Pauline & Pauline, 2009; Pierce et al., 2014). According to Finkelstein (2008), a volunteer's satisfaction depends on whether their experience meets their goals in a set of volunteer experiences.

Kim et al. (2019c) argue that volunteer satisfaction can be measured from different perspectives, such as job satisfaction or leisure satisfaction. Furthermore, these authors indicate that job satisfaction is the most appropriate perspective in sport management and sport volunteering research to understand how a volunteer can achieve job satisfaction. According to Locke (1976) job satisfaction is a "pleasurable emotional state resulting from the perception of one's work as fulfilling or enabling the fulfilment of one's important work values, provided that these values are compatible with one's needs" (p. 1304).

Workers and volunteers have to devote time to perform their work well and be recognised, invest in knowledge, skills and abilities (Gidron, 1983). According to Chelladurai (2006) job satisfaction is one's attitude towards one's work, which is affected by different factors that change from person to person. For example, two people in the same position performing in the same work environment may have different levels of satisfaction.

Finally, the aim of third sector organisations is to get more people to volunteer over time and in a sustainable way. This is particularly relevant in the context of sport, and more specifically sport events.

To achieve this purpose, it is important that both organisations and volunteer managers take into account all factors that may affect the intention to recommend or continue volunteering within the organisation or event. Thus, Ajzen and Fishbein (1980) defined intention as "a measure of the likelihood that a person will perform a certain behaviour (which) can be called behavioural intention" (p.5).

Recommendation, 'word of mouth' or 'Worth of Mouth' (WOM) is defined according to Harrison-Walker (2001) as "an informal person-to-person communication between a perceived non-commercial communicator and a recipient regarding a brand, product, organisation or service" (p. 63). This concept has been widely researched in various contexts as an aspect of loyalty. The backbone of WOM is based on the volunteer's communication about their experience in the organisation: if the experience is positive, participation will be recommended to others; if the experience is negative, it will indicate to others not to undertake any activity with the organisation.

It is important to know volunteer behavioural intentions for two reasons: i) to retain more experienced volunteers for future events and ii) to attract and engage new volunteers (Love et al., 2011). According to Bortree & Waters (2014) volunteers can be retained in the right way through good communication. Furthermore, encouraging task structure and cooperation between groups is not only important for retaining volunteers, but also for building teams and collective unity (Doherty & Carron, 2003; Gillespie et al., 2011).

## 6.2. Objectives

The main objective is to analyse and evaluate the socio-demographic profile, motivation, commitment, work effort, satisfaction, teamwork and future behavioural intentions and intention to stay in the Sport4Cancer Mar Menor Games event.

The secondary objectives are:

- To study the degree of motivation, commitment, work effort, satisfaction, teamwork and future intentions of the volunteers participating in the Sport4Cancer Mar Menor Games event according to the gender perspective.
- To study the degree of motivation, commitment, work effort, satisfaction, teamwork and future intentions of the volunteers participating in the Sport4Cancer Mar Menor Games event according to age.

## 6.3. Method

### 6.3.1. Muestra

The sample analysed in this study consisted of 115 university and non-university participants. A total of 83 participants were female (72.2%) and 32 were male (27.8%), with a mean age of  $21.26 \pm 5.8$  years. The following figures show the socio-demographic data. Of the 115 participants, 2 were minors (1.6%), 116 persons were between 18 and 29 years of age (91%) and 116 persons were between 18 and 29 years of age (91%).

With regard to the level of education completed, we observed that 72 participants had completed High School (62.6%), 5 had completed vocational training (4.3%), 34 people had completed university studies (29.6%), 2 people had completed postgraduate studies (1.7%) and only 2 participants had only completed Compulsory Secondary Education (1.7%).

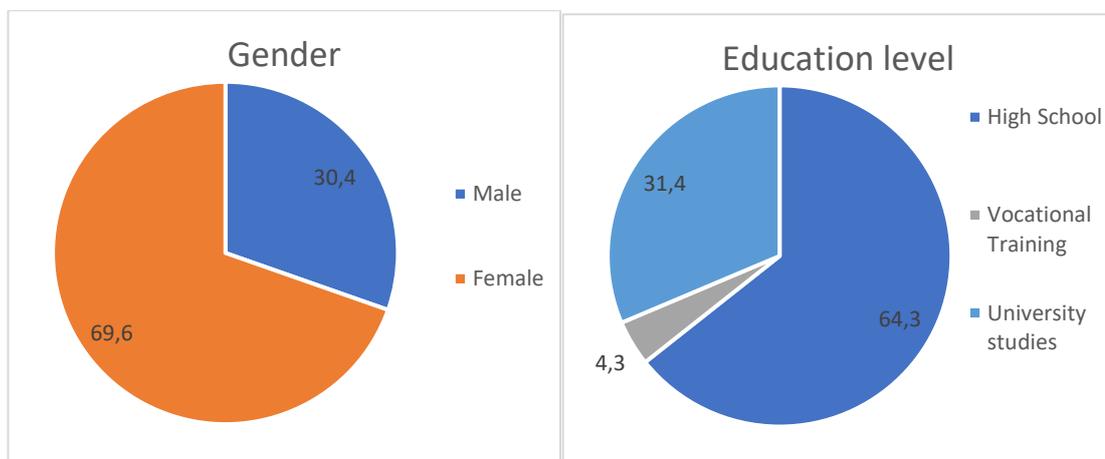


Figure 38. Gender and education level of sport volunteers.

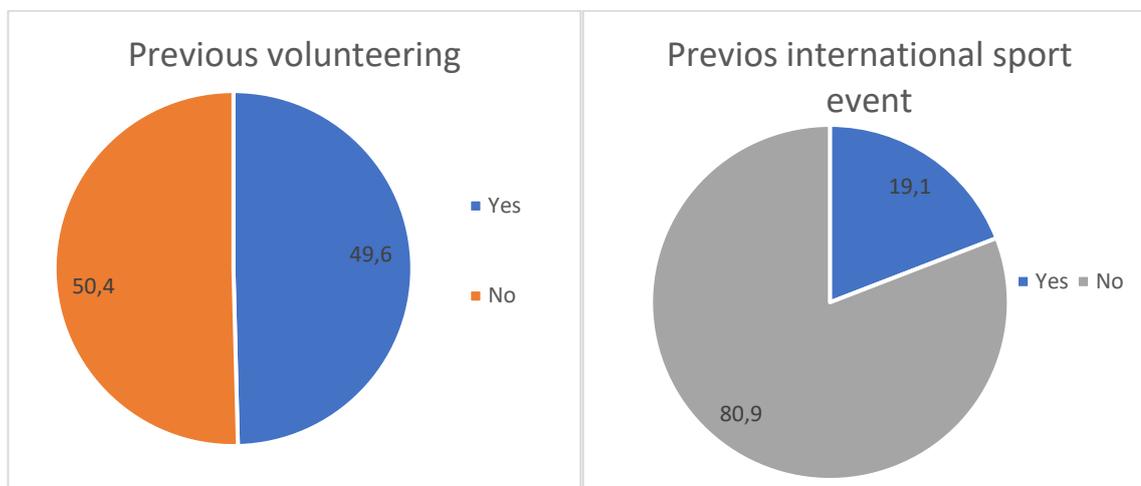


Figure 39. Previous volunteering experience of sport volunteers.

### 6.3.2. Instruments

The instruments used to analyse the sample, according to the variables, were the following:

1. Motivation. The Sport Volunteering Motivation Scale for International Sport Events (VMS-ISE) was used. This instrument, proposed by Bang and Chelladurai (2009) and modified by Bang et al. (2009), consists of 30 items divided into seven factors:

- Career and professional orientation: gaining professional experience and contacts.
- Community involvement: providing assistance to the event as part of the local community.
- Expression of values: feeling of concern for society, for the event and for others.
- Extrinsic rewards: attainment of material rewards such as clothing and food.
- Interpersonal contacts: creating social relationships with other people.
- Love of sport: passionate about sporting events and sport itself.
- Personal growth: personal development, feeling of importance and being needed.

The answers to these items are evaluated on a seven-point Likert scale (1 "Strongly disagree" - 7 "Strongly agree").

2. Commitment. The organisational commitment questionnaire, which was developed by Mowday et al. (1979) and consists of nine items in a single factor, was used. This instrument measures several aspects: i) desire to remain in the organisation, ii) maintaining high levels of effort and iii) accepting the organisation's goals and values. The response scale is a seven-point Likert-type scale (1: strongly disagree; 7: strongly agree).

3. Work effort. This was assessed using the work effort scale developed by De Cooman et al. (2009). This scale is composed of 10 items structured in three dimensions: persistence (items 1-3), direction (items 4-6) and intensity (items 7-10). The Cronbach's coefficient of

this instrument is .90, so it has a high internal consistency. The response scale is a seven-point Likert-type scale (1: strongly disagree; 7: strongly agree).

4. Satisfaction. Satisfaction was measured through the satisfaction with volunteering instrument. This instrument obtained by Oh (2019) is composed of four items that assess the volunteer's satisfaction with the experience they have had during their volunteer work. The response scale is a seven-point Likert-type scale (1: strongly disagree; 7: strongly agree).

5. Teamwork. The abbreviated form of the Practice Environment Checklist instrument developed by Lurie et al. (2011) was used. This scale consists of five items assessing teamwork and has good reliability ( $\alpha = .82$ ). The response scale is a seven-point Likert-type scale (1: strongly disagree; 7: strongly agree).

6. Future intentions. The future intentions instrument developed by Wu et al. (2019) was used. This instrument consists of three items on the intention to repeat the experience and two items on the intention to recommend the event to others.

### 6.3.3. Procedure

A previous literature review was conducted in order to perform an update based on Angosto's (2021) thesis. Participants in this study were volunteers at the Sport4Cancer sporting event. All volunteer participants registered through the Office of Diversity and Volunteering of the University of Murcia. The questionnaire was sent to all volunteers at the end of the event and had a deadline of two weeks after the date of the end of the event. The survey was carried out through the "Surveys" tool of the University of Murcia website. The survey was anonymous and the sampling was non-probabilistic by convenience.

## 6.4. Results

Figure 40 shows the results of the overall motivation and its different associated factors, while Figure 41 indicates the rest of the analysed variables linked to motivation. The results showed that the overall level was high with a value very close to six points ( $M=5.90$ ).

The motivational profile of sport volunteering in Sport4Cancer indicated that volunteers scored high on intrinsic aspects such as the expression of values ( $M=6.40$ ), interpersonal contacts ( $M=6.11$ ) and love of sport ( $M=6.05$ ). The volunteers did not stand out in extrinsic factors such as extrinsic rewards being the worst rated factor with 4.67 points out of seven.

Regarding the rest of the variables, all of them obtained values higher than six points, with work effort ( $M=6.55$ ) standing out above all. Satisfaction also scored high with 6.40 points, followed closely by the volunteer's future intentions to repeat the experience with 6.34 points.

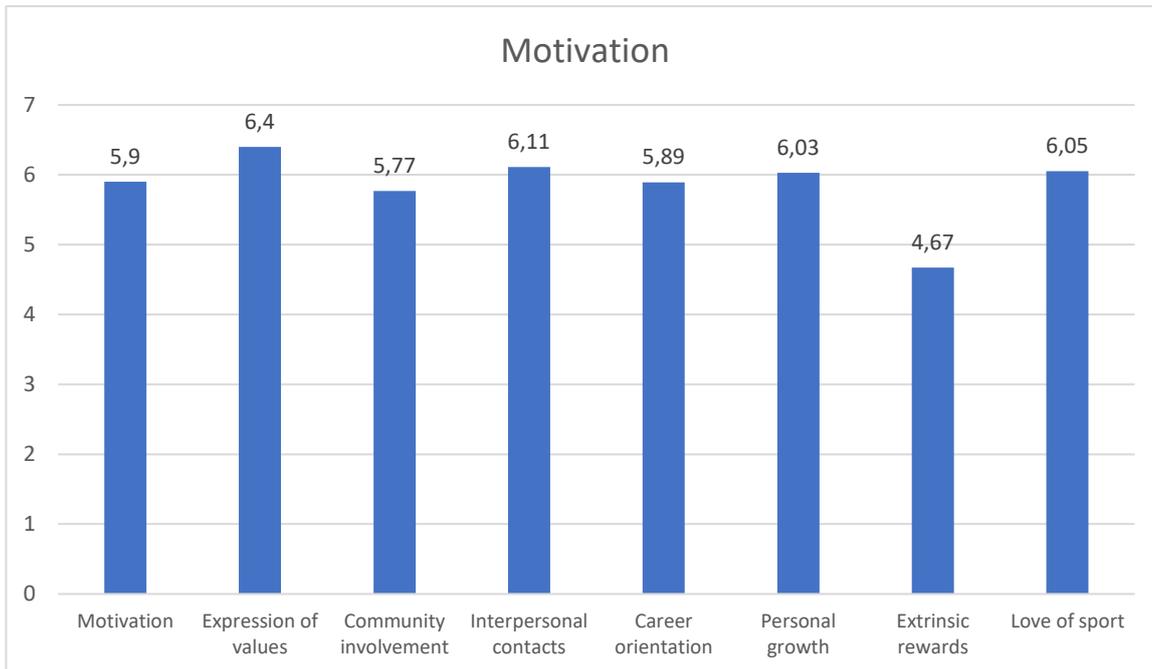


Figure 40. Motivational profile of sport volunteers.

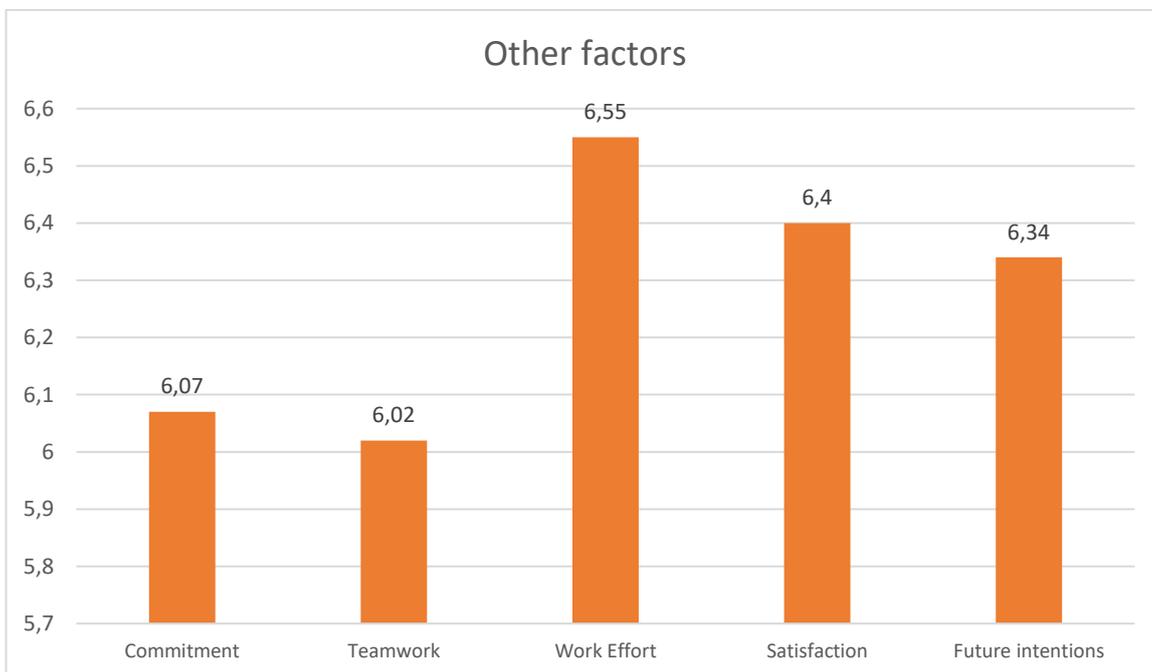


Figure 41. Profile of sport volunteers.

Figure 42 shows the results of the comparison of the variables according to gender. All variables showed very similar values between men and women. The variable with the highest value for both men ( $6.37 \pm 0.6$ ) and women ( $6.63 \pm 0.5$ ) was work effort. The variables value expression, personal growth and future intentions were the only significant variables ( $p \leq 0.05$ ). All variables had higher values in females than in males, with the exception of the

dimensions interpersonal contacts, extrinsic rewards and love for sport, in which values are higher in males. In community participation there was a high tendency towards significance, while in teamwork there was a slight tendency towards significance.

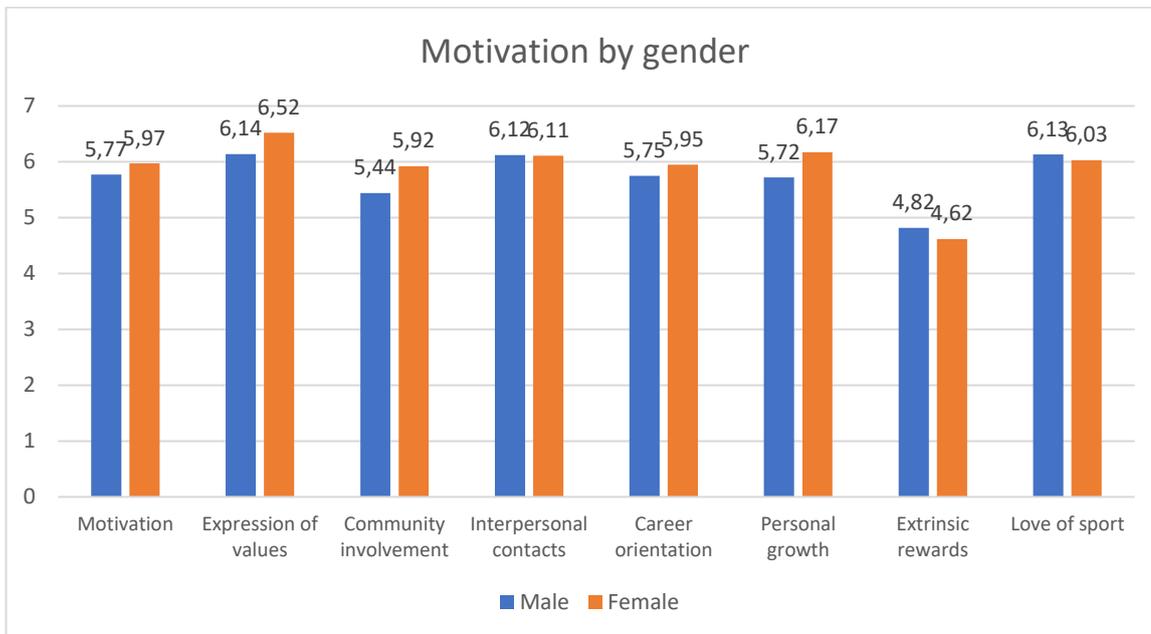


Figure 42. Motivational profile of sport volunteer by gender.

The results of the other dimensions according to gender (Figure 43) showed that female volunteers had higher scores in all dimensions. As in the general results, they highlighted the perceived work effort for their work, followed by satisfaction. In contrast, teamwork was the lowest rated dimension but with a high score out of six points.

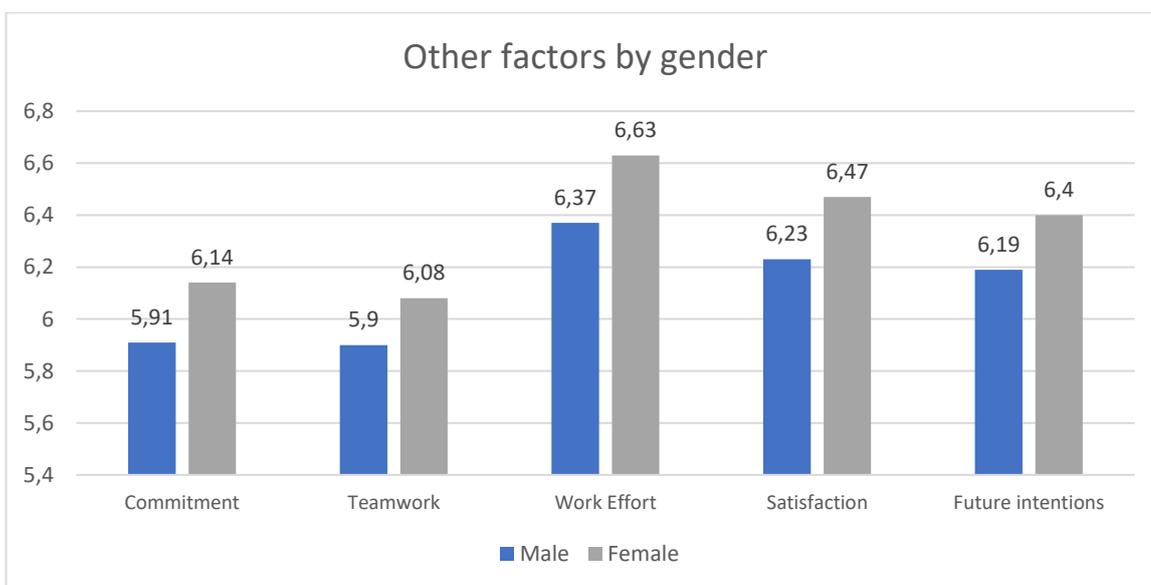


Figure 43. Other variable profile of sport volunteer by gender.

When comparing the results of the variables according to the age of the participants (Figure 44), it was observed that the participants aged 19 years or younger had the highest values for all variables. The variable with the highest value in all three groups was the work effort variable. However, the variable with the lowest value, in all three groups, was the variable extrinsic rewards.

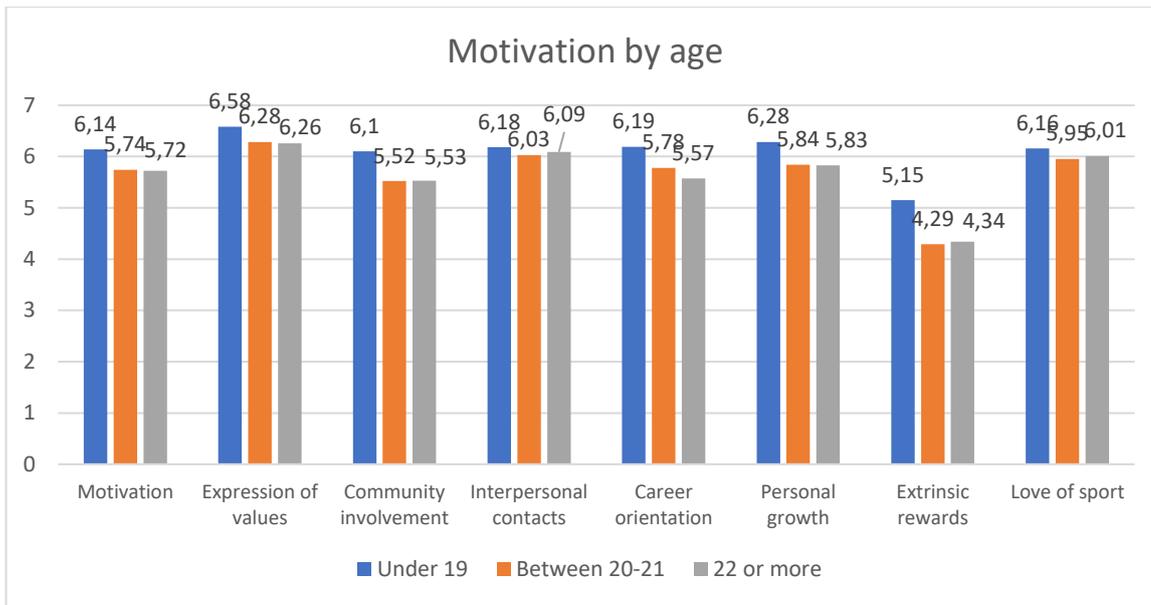


Figure 44. Motivational profile of sport volunteer by age.

Figure 45 presents the results of the other dimensions according to age. The under 19 year olds had the best scores among the three groups except for the teamwork dimension which was better rated by the 20-21 year olds. The work effort factor had almost all scores above 6.50 points except for the 20-21 year old group which had 6.47 points. All groups scored above six points for all dimensions except for teamwork with the 21+ age group scoring 5.72 points.

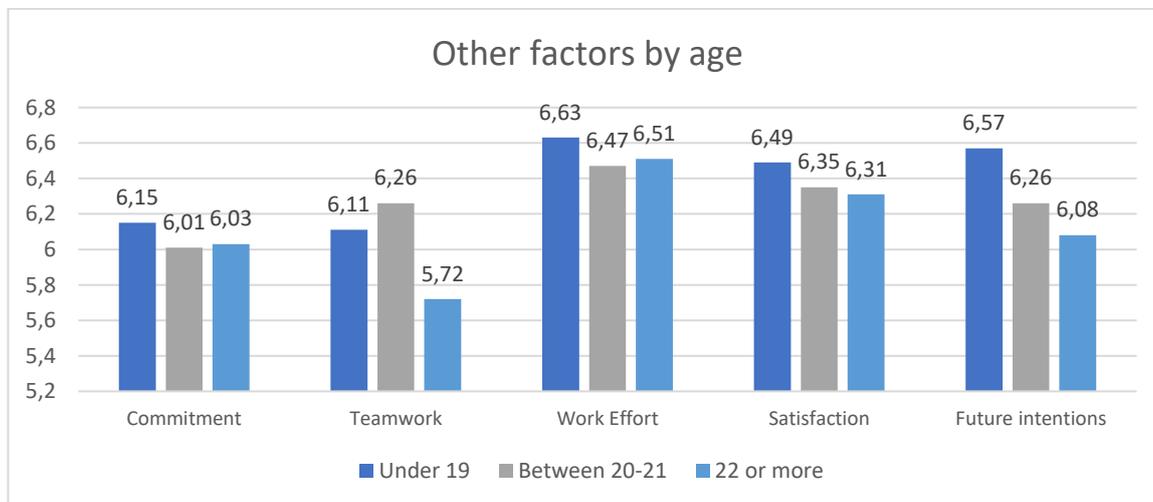


Figure 45. Other variable profile of sport volunteer by age.

## 7. SUSTAINABILITY PERCEPTION

### 7.1. Introduction

Sport and the Sustainable Development Goals are two global developments that define the beginning of the 21st century (Añorve & Palafox, 2021). To broaden the scope of the 2030 Agenda goals, the World Health Organization collaborated equally with the government, sport and business sectors to promote its healthy living agenda across the lifespan, addressing inactivity as a cause of many disease profiles (Campillo-Sanchez et al., 2021).

One of the major problems faced by sport organisations that want to develop in the field of sustainability is the lack of quality terminology (Lindsey, 2008), and the setting for guiding models that favour community empowerment. (Schulenkorf, 2012). Some studies confirm that the specific figure of sustainability related to sport events and care for the environment is a key factor in the development of a sustainable sport event (Preuss, 2019), where the evidence of the sustainability approach at sectoral level stands out. Sport cannot directly solve the world's problems, but it can do its bit by offering initiatives that facilitate problem solving. (Armstrong, 2007).

- SDG 1 "End Poverty": Sport helps by engaging people in social change (Giulianotti, 2011) where social entrepreneurship and innovation become a source of opportunities to increase economic growth in disadvantaged communities (Ratten, 2011).
- SDG 3 "Health and well-being": Researchers claim that physically active leisure can solve major problems such as stress, thus providing major health benefits such as: reducing the risk of cancer, diabetes, heart disease and osteoporosis. (Iwasaki & Mannell, 2000).. It also helps in the prevention and recovery from drug use. (Jiang & Peterson, 2012).
- SDG 4 "Quality education": Learning with physical activity offered to young people through education should be appropriate to help them acquire psychomotor skills so that they learn to be creative, create positive teaching methods, avoid inclusion etc. (Gil-Espinosa & Aznar, 2016). They also reduce absenteeism and improve educational expectations, behaviours and engagement.
- SDG 5 "Gender equality": people's needs and preferences are considered equally regardless of gender. Gender equality can take advantage of the possibility of using sport as a tool to combat the problems and difficulties that gender inequality generates in countries and their evolution. (Dosal Ulloa et al., 2017)..
- SDG 8 "Decent and economic work": It is becoming increasingly important to have specialised staff in the field of sport, which is why many jobs are becoming increasingly important and are becoming essential personnel so that not only implies a good development in sporting profitability (Gómez-Tafalla, 2013).but also helps in economic growth by increasing the economic well-being and happiness of those who practice it. (Downward & Rasciute, 2011; Huang & Humphreys, 2012)..

- SDG 9 "Industry, innovation and infrastructure": Encourages the production of goods as well as the promotion of sporting events. (Zheng, 2011).
- SDG 10 "Reducing inequalities": Unstable social relations led to social alienation and thus to social exclusion (Fernández-Gavira, 2007)Therefore, sport helps to improve social inclusion (Perks, 2007), socialisation of people with disabilities (Hanson et al., 2001), and ethnic integration (Hallinan & Judd, 2009).
- SDG 11 "Sustainable Cities and Communities": Increases the use of walking and cycling, decreasing traffic congestion and reducing pollution, thus improving public health. Benefits the conservation of infrastructure and natural sites (Evstafyev & Evstafyev, 2015)..
- SDG 13 "Climate Action": Decrease the carbon footprint of sports by mitigating the impact of biodiversity on the installation of sports facilities. (Brownie, 2019).
- SDG 16 'Peace, justice and strong institutions': Facilitates conflict resolution by fostering social relationships (Coalter, 2005)restoring traumatised individuals and reducing rates of violence (McKenney & Dattilo, 2001).
- SDG17 Partnerships to achieve the goals: sport produces many partnerships between different actors such as collaboration in the organisation of university championships with universities; with companies, as options within their corporate social responsibility programme; with local government entities, in all kinds of activities to promote sport; etc. (United Nations Office of Sport for Development and Peace, 2018).

As discussed above, education contains the importance of critical, creative and innovative thinking, problem-solving and decision-making (McLennan & Thompson, 2015).. Physical Education provides different opportunities to achieve these skills, promoting motor competence to structure thinking so that we can express feelings and develop understanding through competition and/or cooperation. These authors state that the learner begins to investigate how to manage risk and take on assigned tasks such as behavioural responsibility, learning to cope with both success and failure, thus evaluating the results obtained.

When physical education is adopted in sustainable development, we are talking about an integral physical education in which the globality of the being is expressed through physical activity, developing motor situations in which solidarity, cooperation and care for nature are necessary (Lagardera, 2002). Furthermore, it also indicates that the pedagogical proposals for integral physical education are nourished on the basis of play and discovery, as an inherited heritage of nature, and act as a cultural structure. (Lagardera, 2002).

Some studies report the link between physically active young people and their academic achievement as a result of daily physical activity, the social and academic benefits will be very significant. Due to children from disadvantaged backgrounds, it is important that children get the right to quality physical education within schools (SDG1). A global strategy for inclusive education is of vital importance to combat all disadvantages and discrimination (gender, geography, ethnicity) (SDG4 and SDG5), ensuring adequate resources for the 2030

Agenda goals, requiring international collaboration to mobilise resources in lower income countries (McLennan & Thompson, 2015).

When sport is part of the school curriculum, the content of physical education raises a number of prominent models such as: physical literacy (Dudley et al., 2017).. Teaching games for understanding (Harvey et al., 2020), and sport education (Araújo et al., 2014). These approaches brought about a change in policy leading to an improvement in quality of life. At the national level it is evident that physical activity and participation in sport is more socio-economically inclined. Popular games and sports will be included, establishing novel sports (without sexist branding) that are presented to students as neutral, thus linking physical conditioning and introducing it at the same time to movement (SDG3). Empathy will be worked on by working on emotions regardless of gender (SDG5) (Baena-Morales, 2021).

An example of the relationship between sport and the 2030 Agenda can be seen in the narrative review of (Dai & Menhas, 2020) in which the Chinese government focuses on promoting physical activity through sport to achieve health-related SDGs. The Chinese State Council plays a "soft role" in supporting sport in sustainability by strengthening global issues in China. Three reductions and threefold health" were established in the framework of the health-related SDGs to achieve the goal of a healthy China. (Dai & Menhas, 2020).

Physical Education is a transcendental subject that can contribute to the achievement of the goals set out in the 2030 Agenda. Beyond the advantages of physical activity in healthy living, Physical Education sets a favourable context that offers the development of collaboration, respect, cooperation, co-education and entrepreneurship with aspects related to the development of the SDGs, therefore, it makes sense that school physical education also has the potential to contribute to the visions set by the 2030 Agenda. (Fröberg & Lundvall, 2021)..

As highlighted by Baena-Morales et al. (2021) it can be concluded that not all the goals of the 2030 Agenda can be implemented in Physical Education. However, future research projects should be developed to facilitate the implementation of the SDGs in the educational context by improving the ability to measure and evaluate the contribution of sport and physical activity. In relation to this principle, Hatton et al. (2020) publishes a practical guide to measuring the distribution of sport that will enable teachers in physical education to establish more stable criteria for developing the SDGs and different academic subjects.

It is recognised that, despite not explicitly addressing the link between physical education and the SDGs, a large body of research in the field of physical education has implications for issues related to the 2030 Agenda. For example, previous research shows that physical education can contribute to the promotion of various aspects of health, as well as challenges related to the social justice and inclusion agenda. (Bailey et al., 2009; Beni et al., 2017; Fröberg & Lundvall, 2021; Opstoel et al., 2020).

There is a paucity of research on how sustainability affects education, as highlighted in the systematic review which encourages researchers and practitioners to reflect on what the educational aspects of sustainable development can symbolise in physical education. The same review included papers dealing with students from all grades of primary and secondary education who developed ideas and different views on the role of physical education in the context of the 2030 Agenda (Fröberg & Lundvall, 2021)..

Finally, Escher (2020) conducted a bibliometric analysis investigating the term "sustainable development in sport" in the scientific literature, thus offering guidance to researchers in their future research related to the aforementioned term. This study concludes that during the last 10 years the scientific production in this field of research has increased strongly, however, not enough time has elapsed to propose an interpretation of the numerous terms and phrases in the research on this field, that is why it is too early to accurately conclude the above terms. Therefore, the aim of this study is to conduct a systematic review of the scientific literature focused on SDG work and development through sport and physical education.

## 7.2. Objectives

The general objective of this study is to analyse the sustainable perception of the contribution to SDG from the major European event Sport4Cancer 2023 by comparing the results according to gender and age.

The specific objectives are:

- a) To compare the sustainable perception of the contribution to SDG from the Sport4Cancer event according to the gender perspective.
- b) To compare the sustainable perception of the contribution to SDG from the Sport4Cancer event according to age.

## 7.3. Method

### 7.3.1. *Sample*

The sample consisted of 349 event attendees. The following figures show the socio-demographic data of the sample. According to sex, 61.9% were female and 38.1% male, while according to gender, male attendees were the same while female attendees represented 61.0% and 0.9% non-binary.

In terms of age, almost half of the participants were between 31 and 49 years old (44.7%), followed by younger participants (less than 30 years old) with 39.5% and, in last place, those over 50 (15.8%). 56.7% of the participants had a university education, 22.9% a baccalaureate or vocational training. Marital status indicated that half of the participants were single, while about a quarter were married. Finally, with regard to occupation, 63.9% were workers and 23.8% were students.

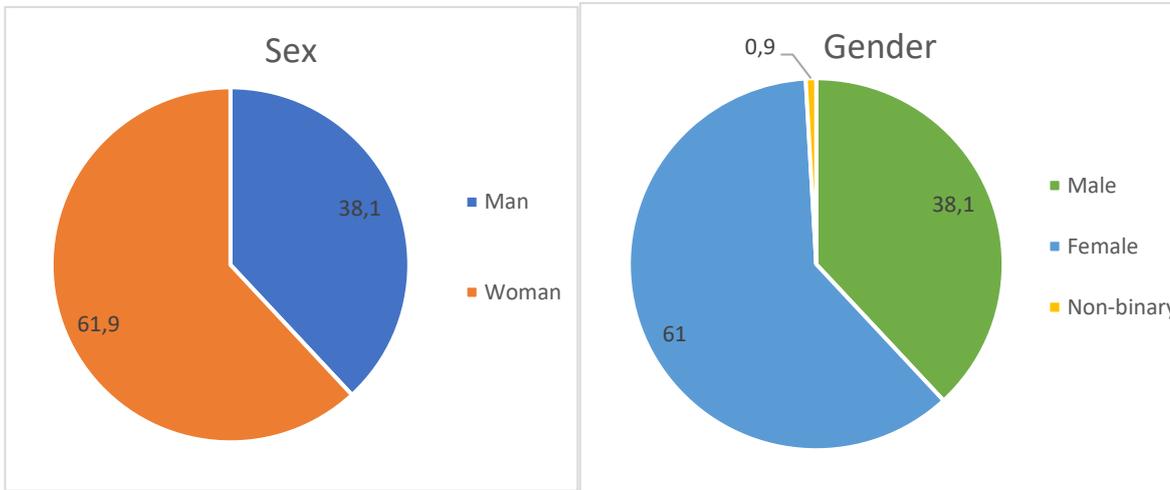


Figure 46. Sex and gender of attendees' perception.

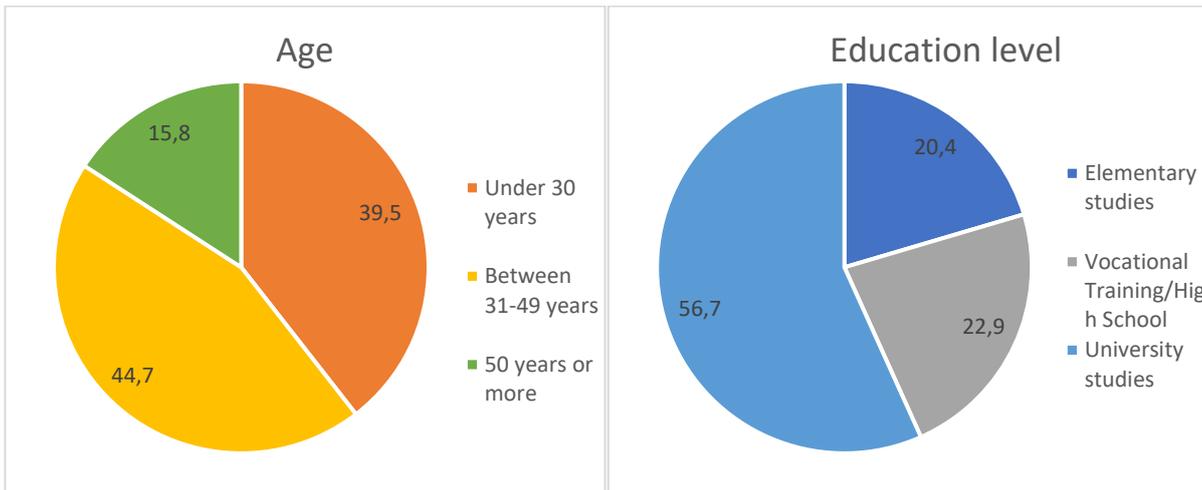


Figure 47. Age and educational level of attendees' perception.

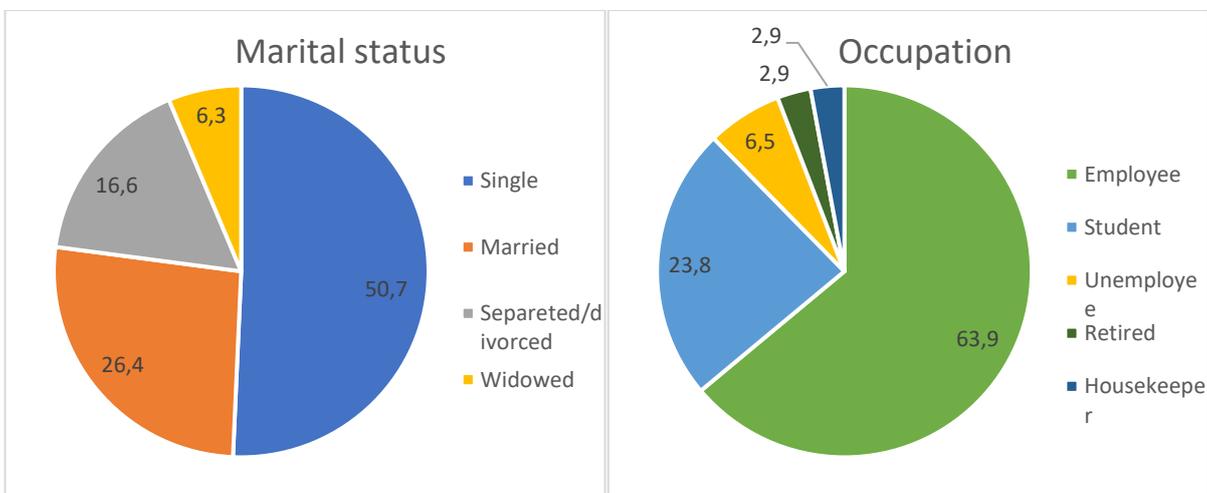


Figure 48. Marital status and occupation of attendees' perception.

### 7.3.2. *Instruments*

The instrument used was an adaptation of the tool proposed by Hugaerts et al. (2021) on the perceived contribution of SDGs in sport events. The tool is composed of 17 items, each corresponding to one SDG. A 7-point Likert scale was used (1 - Strongly disagree; 7 - Strongly agree).

### 7.3.3. *Procedure*

The questionnaire was administered by means of an online form sent by the coordinating group of the study to the different personal e-mail addresses of the participants in the sporting event, thanks to the lists that the organisations of the sporting events had available when registering for the sporting event and that the participants accepted the conditions for providing their personal data to third parties for this purpose.

The questionnaire remained open from one day after the event until 10 days after the sporting event, during which time participants could voluntarily access the questionnaire online and complete it completely anonymously. The data is computerized directly in an Excel spreadsheet, avoiding errors of registration and omission of answers, as the system does not allow the form to be sent if not all the items are answered.

## 7.4. Results

Figure 49 shows the different SDGs and the item developed for each SDG.

#### SDG1 No poverty

- The organisation promotes the inclusion and participation of people in situations of social exclusion.

#### SDG2 Zero hunger

- The organisation offers food and/or drink during the event.

#### SDG3. Good health and well-being

- The organisation ensures the well-being and health of all participants through appropriate health measures during the event.

#### SDG4 Quality education

- The organisation supports and promotes education for sustainable development.

#### SDG5 Gender equality

- SDG5. The organisation promotes gender-equal participation of participants in the event.

#### SDG6 Clean water and sanitation

- The organisation facilitates responsible water consumption through access points for drinking water.

#### SDG7 Affordable and clean energy

- The organisation minimises the use of non-renewable energy at the event.

#### SDG8 Decent work and economic growth

- The organisation contributes to and improves the local economy, trade and tourism.

#### SDG9 Industry, innovation and infrastructure

- The organisation facilitates and promotes information through digital tools (web, social networks...).

#### SDG10 Reduced inequalities

- The organisation promotes equal opportunities for participation in the event, regardless of age, ethnicity, race during the development of the activities to be carried out at the event.

#### SDG 11 Sustainable cities and communities

- The organisation provides adequate infrastructure and quality services appropriate to the sporting event.

#### SDG12 Responsible consumption and production

- The organisation makes efficient use of available resources and promotes waste recycling.

#### SDG13 Climate action

- The organisation promotes the use of public transport and electric and/or environmentally friendly vehicles during the event.

#### SDG14 Life bello water

- The organisation uses marine resources and minimises water pollution during the event.

#### SDG15 Life and land

- The organisation minimises the impact on the natural environment by favouring the protection of flora and fauna during the event.

#### SDG16 Peace, justice and strong institutions

- The organisation ensures peace and security at the event.

#### SDG17 Partnertships for the goal

- The organisation promotes the participation of public, public-private and civil society partnerships to carry out the event.

Figure 49. Sustainable perception items associated to each SDG.

The results of the perception related to the contribution to the SDGs by the different actions (Figure 50) carried out by those responsible for Sport4Cancer were quite satisfactory. In general, all items had moderate or high scores, especially those referring to SDG10 'Reducing inequalities' with a score of 6.34 points, followed by SDG4 'Gender equality' with 6.29 points. On the other hand, SDG13 'Climate action' was the least contributed to in the perception of the Sport4Cancer event attendees with a value of 5.27 points.

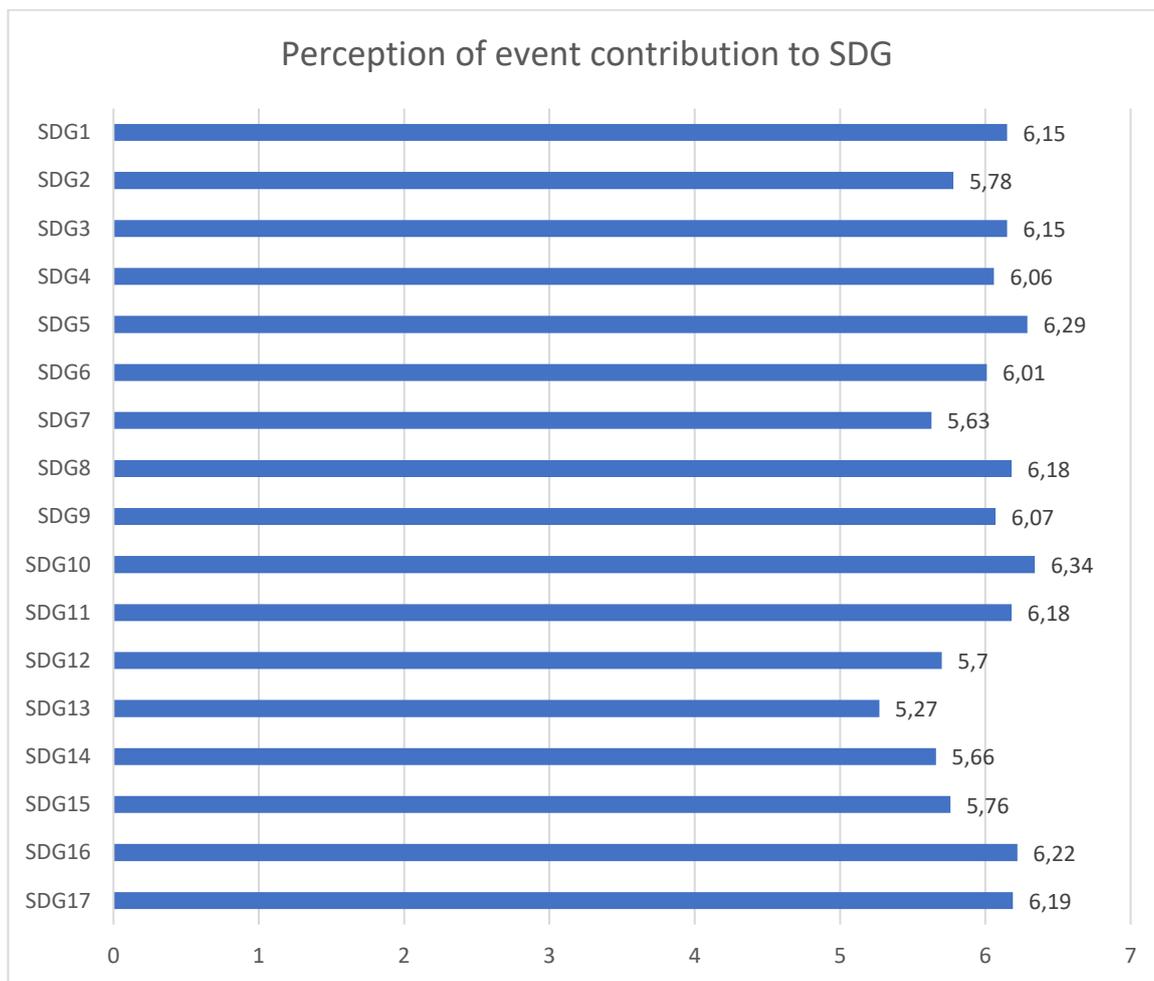


Figure 50. Results of sustainable perception of each SDG.

The perception of sustainability of the event according to gender (Figure 51) is measured in Table 1. All SDGs were scored with a score above five points. The male gender rated SDG16 'Peace, justice and strong institutions' highest with an average score of 6.34. In contrast, females scored highest on SDG10 'Reducing inequalities' with a total of 6.39±1.0 points. Both genders rated SDG5 'Gender equality' positively with a high score (Male =6.32; Female: M=6.28).

On the other hand, in relation to the lowest rated items, SDG13 'Climate Action' scored the worst for both the male (M=5.24) and female (M=) genders. Also, SDG7 'Affordable and clean energy' was poorly rated by males, with an average of 5.63±1.5 points; and SDG14 'Underwater Life' was among the least rated for females, with an average of 5.58 points.

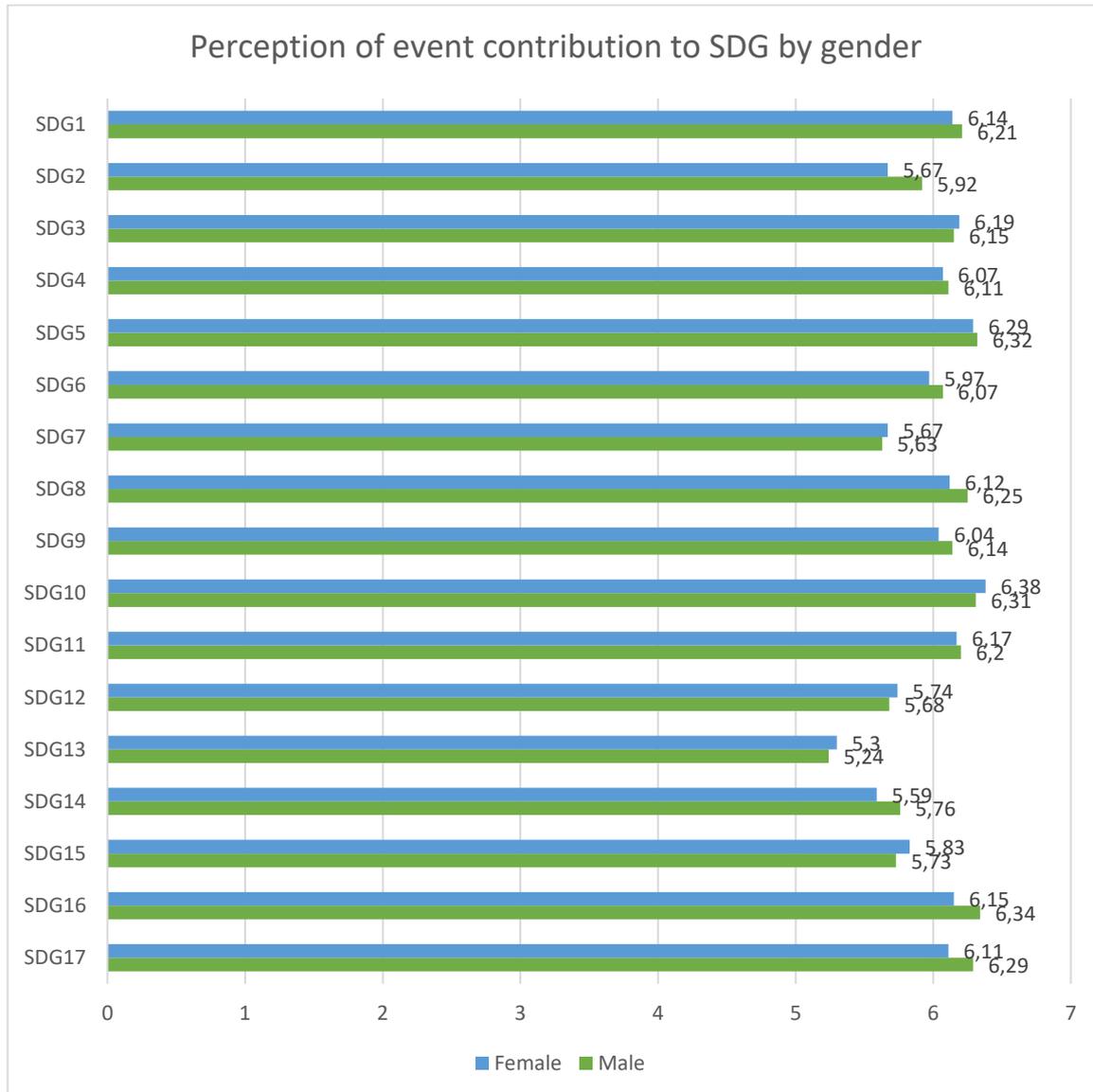


Figure 51. Results of sustainable perception of each SDG by gender.

Analysing the results of the perception of the contribution to the SDGs at the Sport4cancer event according to age (Figure 52) showed varied results according to the age of the attendees. Although there was an overall tendency to rate SDG10, SDG5 and SDG16 higher, considering each individual SDG according to the group, there was a great deal of variability. For example, the group of young people under 30 years of age scored the SDG1, SDG5 and SDG10 higher than the other groups. The group of adults between 31 and 49 years

of age scored higher on SDG8, while the group of older adults over 50 years of age scored the SDGs more highly.

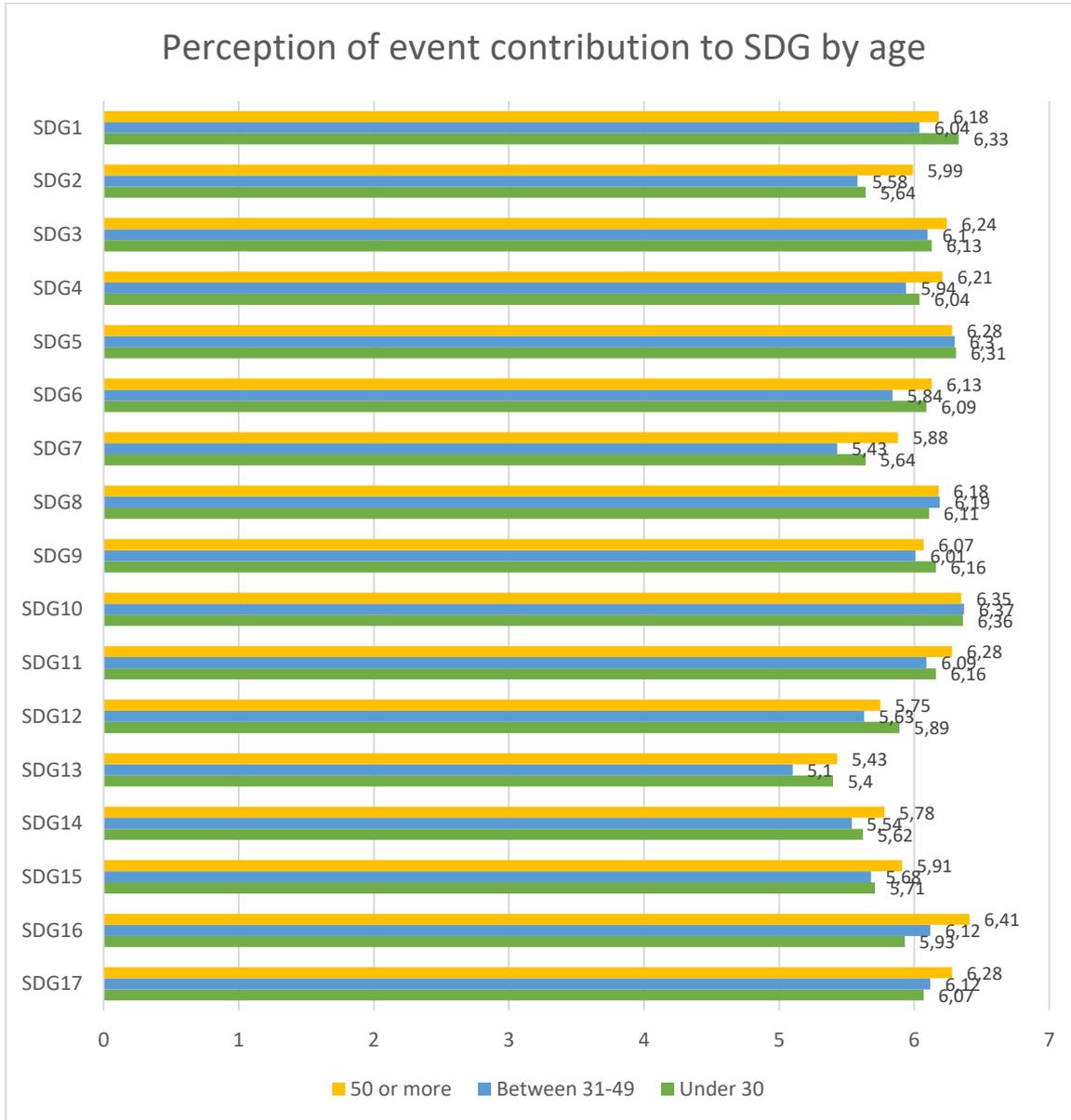


Figure 52. Results of sustainable perception of each SDG by age.

## 8. MAIN CONCLUSIONS

The main conclusions drawn from the different impact analyses are as follows:

1. The social perception study shows a high perception by residents of economic benefits and low social costs. Residents' satisfaction and future intentions about the Sport4Cancer event are very high. The perception in the insitu phase increased in benefits and decreased in costs compared to the previous phase.
2. Female residents have a better social perception than male residents in all dimensions, with economic benefits and benefits in image and promotion standing out. Future intentions of both age groups are high.
3. With respect to age, young residents (under 30) have a better opinion than older residents, although with very similar scores to adults over 50. Future intentions of all three age groups are high.
4. The tourism perception of the residents shows that the social dimension and the appreciation of the event staff are the best evaluated aspects, while the destination image is the dimension with the lowest score. Tourists' satisfaction and future intentions are high.
5. The gender perception of tourism indicates that female tourists have a higher perception than male tourists, with differences in the social, personal and destination image dimensions. Female tourists have much higher satisfaction and future intentions than male tourists.
6. Tourists over 50 years of age have a better tourist perception than younger tourists, with those under 30 years of age having a worse perception in all dimensions, except for the two dimensions with the lowest scores (event information and destination image). Satisfaction and future intentions of all three age groups are high.
7. Within the perceived quality of the event, participants rate best the aspects related to the event staff and environmental aspects, with communication being the aspect with the lowest score. Regarding the overall quality of the event, satisfaction and future intentions have high scores, with perceived value being the lowest rated.
8. The perceived quality of the Sport4Cancer event according to gender shows a better opinion of the event in all factors by female participants. There is a greater difference with female participants in the perception of the logistics of the event, the overall quality and satisfaction compared to male participants.
9. Younger participants (under 30 years) perceive the overall quality of the event better than older participants. Participants older than 50 years rate the communication and logistics better, as well as placing a higher value on the Sport4Cancer event. Satisfaction and future intentions are moderately high.
10. The motivational profile of the volunteers at the Sport4Cancer event is especially focused on values, interpersonal contact and love of sport. With regard to the other factors, hard work is the most valued above satisfaction and future intentions.

11. Male volunteers score higher on the motivational factors interpersonal contact, extrinsic rewards and love of sport than female volunteers. Female volunteers have higher scores on the dimensions associated with the evaluation of volunteering, with work effort standing out, followed by satisfaction and future intentions with high scores.
12. Younger volunteers (under 19 years old) show higher scores on motivational factors than older volunteers. Factors linked to intrinsic aspects such as values, personal growth and love of sport are to be highlighted. Volunteers over 21 years of age have the lowest scores on most motives. Regarding the other dimensions, young people under 19 also have better scores than older ones, except for teamwork. The overall scores were high for all age groups having high future intentions with their participation.
13. The perception of the attendees on the degree of contribution to the SDGs made by the Sport4Cancer event organisation highlights the contribution towards SDG10 'Reduced inequalities', SDG5 'Gender equality' and SDG16 'Peace, justice and strong institutions'. In contrast, SDG13 'Climate action' has the lowest score.
14. A comparison of attendees' perception of the contribution to the SDGs by gender shows that in general the same SDGs stand out as at the global level. Female attendees perceive the contribution to SDG3, SDG7, SDG10, SDG12 and SDG15 better than male attendees.
15. The youngest attendees (under 30 years) and the oldest 50 years show the best perceptions of the contribution of the ODS by the organization of the Sport4Cancer event organization existing a great variability between the different groups. The group of adults aged 31-49 years scored lowest on most of the SDGs.

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**Erasmus+ 2022**

**Project ID: 101050018**



Co-funded by the  
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