

Social expansion of rowing as a therapy for breast cancer

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ABSTRACT

The article analyses the impact of rowing on women breast cancer survivors, promoting physical exercise and emotional recovery. The “Vence-remos” programme seeks to improve the health and quality of life of these women through adapted rowing. It highlights the creation of support networks and the overcoming of stigmas about female fragility. Participation in this sport has increased significantly, promoting gender equality in sport.

Keywords: Physical activity, Emotional recovery, Cancer survivors, Gender equality, Quality of life.

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INTRODUCTION

This article analyses its impact on promoting women's sports and physical exercise among women who have faced the challenge of overcoming breast cancer. In this area, exercise is presented not only as an enriching physical activity but also as a vehicle for empowerment and recovery for women who have experienced the physical and emotional impact of the disease.

In this sense, rowing, requiring precise timing and a collaborative effort, stands as a vehicle for collaboration and solidarity, values that translate significantly into the sociocultural sphere. In this sense, rowing, requiring precise timing and a collaborative effort, stands as a vehicle for collaboration and solidarity, values that translate significantly into the sociocultural sphere.

From a sociological perspective, the active participation in rowing by women who have battled breast cancer challenges entrenched notions about female fragility and highlights the resilience and strength inherent in these women. Likewise, this participation contributes to the creation of support networks that transcend individual barriers and become living testimonies of the human capacity to overcome significant challenges.

In this article, we aim to explain how action research can impact the practice of sports in the society in which we live. To this end, we present how the research conducted by the PAI CTS-563 Research in Sport Science group has managed to impact the society in which it operates.

According to the World Health Organization (WHO, 2019), there are 2.3 million new cases and 458,000 deaths from breast cancer each year. In 2020, breast cancer surpassed lung cancer, which has been the leading cause of death for many years. Therefore, we are facing the most common cancer in the world and it also has the particularity, not insignificant, that it affects women more than men.

Current knowledge about the causes of breast cancer is insufficient, so early detection remains the cornerstone of the fight against this disease. When it is detected early, properly diagnosed, and treatment is available, the chances of a cure are high (Hayes et al., 2006; Fujimori, 2010; Tiezzi, 2014).

According to the European study Eurocare 6 (2023), the number of breast cancer survivors in Spain is 83% five years after surgery, slightly higher than in the rest of Europe. This rate is linked to the effectiveness of treatments, an increase in early diagnosis, and prevention of relapse (Cantarero-Villanueva, et al., 2004). In Spain, approximately 30,000 cases are diagnosed each year; in other words, one in eight women will suffer from this disease in their lifetime. Thus, each year, more and more people are surviving cancer, and with them, the demand for new care needs for this group increases. Therefore, the fight against cancer should not be so much about preserving a person's life but rather maximizing their quality of life.

Although the disease has become chronic, receiving a diagnosis of cancer and living with it entails a series of physical and psychological consequences for the person suffering from it and their family members, which appear from the moment of diagnosis and continue throughout the different phases they go through.

The aggressiveness of oncological treatments and their side effects generate high physical and emotional symptoms in patients (Valentín, Murillo & Royo; 2004), and numerous studies have been carried out on the nature of the psychological consequences of treatments and the possibilities and resources for adaptation of patients (Gontijo Garcia, Meira, de Souza, & Guimarães, 2023; Niedzwiedz, Knifton, Robb, Katikireddi, & Smith, 2019; Roscoe, Pringle, Chandler, Faghy, & Barratt, 2022; Stein, Syrjala, & Andrykowski, 2008).

Physical symptoms such as asthenia or fatigue, pain, and lymphedema negatively impact patients' health, increasing emotional distress. Regular physical activity reduces the risk of breast cancer by 38%, and in patients with the disease, physical exercise increases survival when a cure is not possible, improving quality of life (IARC, 2020).

According to the Spanish Rowing Federation, this is a sport that consists of propelling a boat on water, using the muscular force of one or more people, each of them using one or two oars as simple second-degree levers and sitting with their backs to the direction of progress, with or without a helmsman to guide them.

Despite the significant benefits its practice offers to athletes, it is a minority sport due to the conditions it requires. Typically, a close body of water and relatively stable weather, with no winds that could alter the water conditions.

Furthermore, this sport not only does not require great physical fitness but also greatly improves the quality of life of its practitioners, improving both physical and mental condition (Asensio-García et al., 2021; Volianitis, Yoshiga, & Secher, 2020). However, as we said before, although the benefits are tangible, it is a minority sport.

The *Vence-remos* study aims to improve the physical condition, health perception, and body composition of women who have overcome breast cancer. In fact, the title "*vence-remos*" clearly alludes to overcoming the after-effects of treatments following a breast cancer diagnosis (chemotherapy, radiotherapy, experimental treatments, etc.) through adapted rowing. But the title also hides another nuance: the person performing the action of the verb: the first person plural: we, or in this case, us!

Since this entire project is group-based, another part of the philosophy of this research study that has demonstrated the benefits of (adapted) rowing in this population is that it is always practiced in team boats, that is, in the company of other women with similar pathologies who serve as a support group (they are the backbone, the companion, and the support group), but also under the supervision of qualified personnel: Graduates in Sports Science. Let's say that the legendary song by Richard Rodgers and Oscar Hammerstein, also known as the anthem of Liverpool F.C., has been taken, and the "*you'll never walk alone*" has become "*you'll never row alone*".

METHODOLOGY

The main objective of this article is to understand the social and sporting impact of the research project developed in Malaga and Seville since 2019, thanks to the CTS-563 Research in Sport Science research group.

From the beginning, we have worked closely with the Andalusian Rowing Federation and various clubs to ensure that this new sports field, open to women who have survived breast cancer, remains accessible after the research project concludes.

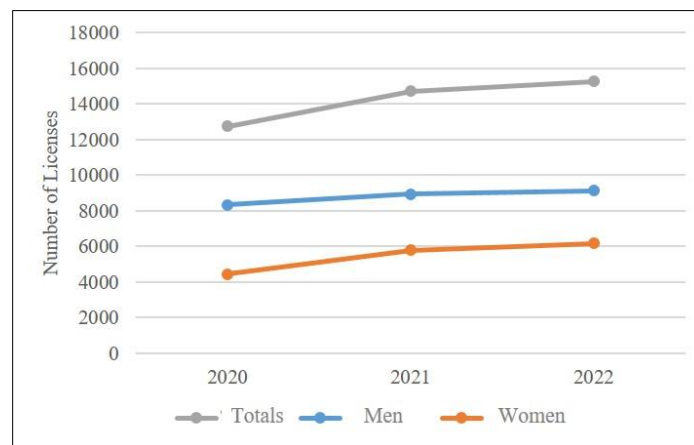
To obtain data, we have consulted the National Statistics Institute, the Ministry of Culture and Sport, the Institute of Statistics and Cartography of Andalusia, and the Andalusian Rowing Federation to find out the number of practitioners.

RESULTS

According to the National Institute of Statistics (2023), in the middle of the year, in Spain there were 48,446,594 inhabitants, of which 23,726,731 were men and 24,719,863 were women.

According to the Institute of Statistics and Cartography of Andalusia (2023), there are 8,484,804 inhabitants in our region, of whom 4,182,620 are men and 4,302,184 are women. As can be seen, there are more women than men. However, if we focus on the world of sports, we find a paradox:

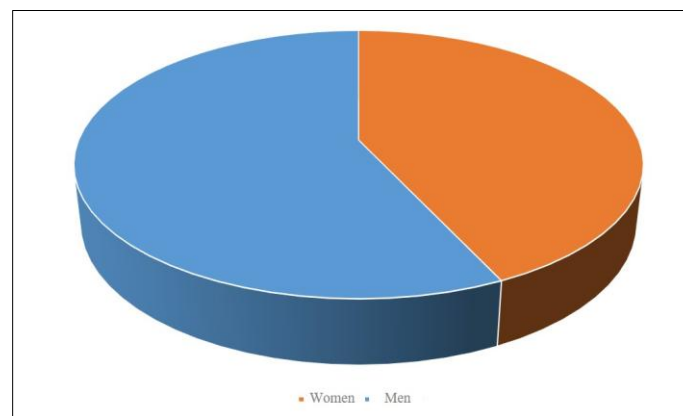
According to the Ministry of Culture and Sport (2023), the number of sports licenses (federated athletes) is 4,107,300, of which only 24.3% are women. In the specific case of rowing, in 2022, there were 15,266 federation cards, of which 6,158 were female. As can be seen, it is a fairly feminized sport, however, 40.34% of licenses are female, well above the population average.



Source: Ministry of Culture and Sport (2023).

Figure 1. Number of rowing licenses by gender in Spain.

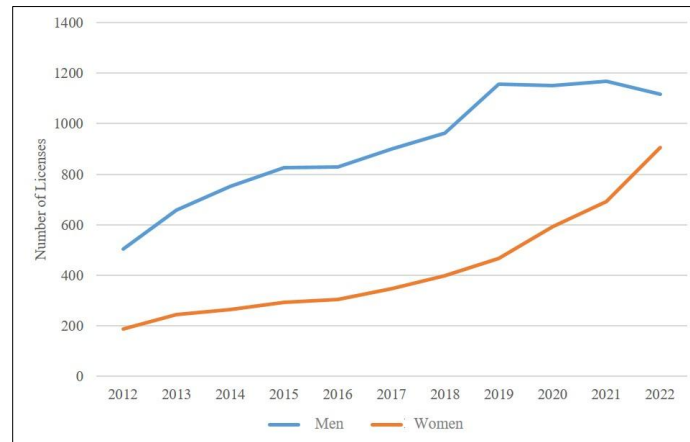
In Andalusia, in 2022, there were 1,974 federation licenses, of which 849 were female, equivalent to 43% of the population.



Source: Ministry of Culture and Sport (2023).

Figure 2. Number of rowing licenses by gender in Andalusia.

According to the Andalusian Rowing Federation, the number of licenses has been increasing over the last ten years. Indeed, the number of licenses has increased by 254% in the last ten years, rising from 694 athletes in 2012 to 1,763 in 2022. This is undoubtedly the result of the Federation's successful policies. But it's not just the statistic that stands out: doubling the number of licenses. There's also a clear commitment to the inclusion of women in sports, as can be seen in the following graph: ten years ago, 189 women rowed (as part of a federation) in Andalusia, while last year, 907 athletes did so.



Source: Andalusian Rowing Federation.

Figure 3. Number of rowing licenses in Andalusia.

Comparatively, this figure is striking, as in 2012 only 27.23% of rowing federation members belonged to women. In 2022, this figure rose to 46.13%. In other words, almost half of all federation members belong to women.

This leads us to reflect on the various policies of the Andalusian Rowing Federation to promote women's sport, which, in light of the results, have been very satisfactory, as the number of women's licenses has quadrupled in the last ten years. Of all the policies implemented by this federation to promote women's rowing, we must highlight the promotion of the Vence-remos program in different clubs throughout Andalusia, as well as the organization of various meetings for women with breast cancer and the creation of the BCS category (an acronym for Breast Cancer Survivor).

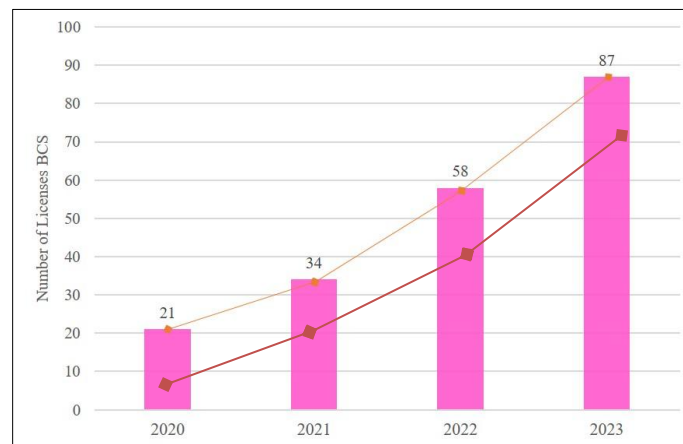
Thanks to the Federation's support for the Vence-remos project, there are now several clubs in Andalusia where women who have suffered from breast cancer can practice rowing tailored to their circumstances and characteristics. Below are the various clubs and locations:

Table 1. Clubs with BCS category that have launched the Vence-Remos Project.

Cádiz	Algeciras: Pink Flags
	La Línea de la Concepción: Vikingas del Estrecho.
Málaga	Málaga: Real Club Mediterráneo: Malaga D.B.
	La Cala del Moral: Vikingas Rosas
	El Candado: El Candado con Ellas
	Faro de Torre del Mar/Vélez Málaga
	BCS Esperanza
Sevilla	Leonas del Guadalquivir

A separate study consists of the analysis of the names of each of these groups of women, as well as the synergies that have been established between Rowing Clubs and Associations of Women with Breast Cancer in the different cases.

Although the Vence-remos project is an educational approach (since the vast majority of women had never rowed before) and despite the recommendation to register for a federation due to the benefits it entails (including medical insurance in case of an accident during the activity), there is still a group of women who are not federated due to the competitive connotation of being federated. However, thanks to the pedagogy of explaining the advantages of having a federation card, the number of licenses has increased year after year.



Source: Andalusian Rowing Federation.

Figure 4. Annual evolution of the number of licenses in the BCS category.

Finally, it is necessary to make it known that this influence of the research project has not remained in Andalusia, but has crossed our borders and there are already other initiatives at a national level that are beginning to support women with breast cancer, such as those of the Concello de Ares (Coruña) with its "Sirenas de las Mirandas", in the Levante: Rema Vida (Alicante), Anémona (Benidorm), Rem Cambrils (Gerona), and another is in the process of being created in Tortosa through its rowing club.

CONCLUSIONS

From a research perspective, the Vence-remos project aimed to demonstrate how adapted rowing had a positive impact on improving the health, physical condition, and mental well-being of women who had suffered from breast cancer. These objectives have been achieved and published in various scientific articles (Gavala-González, Gálvez-Fernández, Mercadé-Melé, & Fernández-García, 2020, 2021; Gavala-González, Torres-Pérez, & Fernández-García, 2021).

But from a sociological perspective, it has become a social phenomenon: a means of women's empowerment. This element has been embraced by various public bodies, such as the Seville City Council (which organized, through its Equality Delegation, a meeting called Row for Life), or the Andalusian Rowing Federation, which has transformed women's sport in Andalusia by creating a new category in numerous regattas: the BCS category, as well as providing support for women who have suffered from breast cancer.

Under the motto "*You'll never row alone*," rowing is a symbol of hope that more and more female athletes identify with. It's not just a way to spend their free time, but also a philosophy of life that teaches us values such as resilience, camaraderie, and the will to believe that together we can overcome difficulties. In this sense, the rowers most affected take the helmsman position, becoming the boat's guide and a fundamental component without which the vessel would not reach its destination. At the same time, each athlete paces themselves to keep moving forward and overcome the difficulties along the way with their own efforts and the help of a group of teammates in similar situations. No one is superfluous on the boat; everyone is necessary. As we can see, group therapy and empathy play a fundamental role in these training sessions, which go beyond the inherent benefits associated with sports activities.

For women who have survived breast cancer, rowing not only offers beneficial physical exercise but also provides a platform where self-improvement intertwines with building strong social relationships. The mutual understanding and support generated in the rowing environment not only contribute to physical rehabilitation but also act as a salve for the emotional wounds that may linger after treatment.

Furthermore, another important factor from a sociological perspective is equal opportunities in sports for women and girls who want to engage in physical activity. As we can see, the number of federation licenses for female athletes has gradually increased in recent years, but traditionally, the percentage of athletes who rowed was predominantly male. Through initiatives of this type, driven by the support of the corresponding federation, we can promote gender equality in the world of sports.

As we have seen, rowing is proving to be an agent of change in the sociological narrative of women's sport and post-breast cancer recovery. Beyond statistics and clinical data, rowing becomes a means by which women not only regain their physical health but also reaffirm their identity, strengthen their social ties, and challenge the limited perceptions society may have of them. This phenomenon, from a sociological perspective, illustrates the transformative power that sport can have in building a more inclusive and understanding society.

This article has shown how university research can positively impact the society in which it is carried out. Thus, a project that was initially planned to test the benefits of physical activity (in this case, rowing) in women with breast cancer, thanks to the synergy and support of other social stakeholders (clubs, city councils, associations of women with cancer, federations, etc.), has not only endured over time and become a reality, but has also become an alternative to medical treatments... Perhaps one day medicine will prescribe physical activity for what we have been advocating for so long: "*Sport adds years to life and life to years*".

AUTHOR CONTRIBUTIONS

Mateo Real Pérez, original idea and coordinator of all the research. Alexis Jurado Lavanant, data collector. Ana María Mosquera Gamero, data collector. Francisco Javier Márquez García, data collector. Jose Antonio García García, data collector and editor of the paper. José Miguel Álamo Mendoza, data collector and drafter of the paper. Noelia Moreno Morales, data collector and drafter of the paper. Álvaro Reina Gómez, statistical processing. Óscar Caro Muñoz, statistical processing. Hayda G. Molero, data collector. José María Hinojosa Montañes, data collector. Juan Gamboa González, research design and data collector.

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No potential conflict of interest was reported by the authors.

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