

# **A Health Education Perspective in Exploring the Emotional Disorder of Shellfish Workers in Their Socio-Occupational Context**

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*Women shellfish gatherers work in a context where gender and other social determinants interact in a complex social structure. The objective is to explore the emotions faced by women shellfish gatherers in their socio-occupational experiences. This was done through focus group and thematic analysis. The roles, conditions, situations, emotions and emotional associations that these women usually experience are exposed. Common emotions that, without being classified as a disorder, can affect emotional well-being. Group health education is crucial to help them recognise, manage emotions and enable them to care for emotional well-being in their context.*

*Keywords: shellfish gatherers on foot, emotions, emotional distress, health promotion, health education*

## **INTRODUCTION**

The construction of the concept of health has evolved over time according to the contributions collected in different periods and increasingly complex contexts. This process has led to the understanding of health as a positive concept that involves actively intervening to modify the environment, rather than merely adapting to it (Gavidia-Catalán and Talavera, 2012). Along these lines, health is conceived as a positive concept that prioritizes social and personal resources, as well as physical abilities and the capacity to develop personal potential and respond positively to the challenges of the environment (Salleras, 1990). Currently, the social approach to health is gaining relevance for its role in improving health systems and responding to the needs of individuals, families and communities, where education plays a crucial role (De La Guardia and Ruvalcaba, 2020).

In the specific case of shell fishing on foot, women have particular characteristics in terms of their health needs, which requires linking social determinants, health promotion and education in a demanding socio-labor context that can affect their physical and emotional health and wellbeing.

The arguments that justify this research focus on the importance of education in mental health and wellbeing for female shellfish gatherers in their socio-occupational context, and on its contribution to scientific knowledge on emotional health for this group. It is relevant because of its gender focus and its novel perspective, since, although the link between emotional distress and health problems in women has been studied, it has not been investigated in a group as unique as female shellfish gatherers. This is essential due to the socio-occupational reality of this group. Furthermore, the participation of the researchers in health

education and the direct observation of their daily work underline the need for a study focused on the emotions of these women, which, although they do not reach the category of disorder, can have a negative impact on their health.

### **The Relationship Between Social Determinants and Health Education**

The determination of the health status of the population is marked by the crucial role played by health determinants interacting at various levels and influencing both the individual and the community level (De La Guardia and Ruvalcaba, 2020). Lalonde's pioneering model in his report 'New Perspectives on the Health of Canadians (1974) captures a very influential model by classifying determinants into four groups: environment, lifestyles, human biology and health system.

In turn, in this same decade, it was already recognised that, despite the advances of the welfare state, improvements in health were not distributed equitably and fairly, which led the Alma Ata Congress (1978) to promote the notion of social determinants of health and to commit to health for all in the year 2000. However, due to persistent challenges, the Millennium Development Goals were established in 2000, replaced in 2016 by the 2030 Agenda for Sustainable Development adopted in 2015.

Faced with persistent health problems and inequalities, the World Health Organization, WHO, in 2008, established the Commission on Social Determinants of Health to address health equity at the global level. Social determinants are understood as the conditions in which people are born, grow, live, work and age, and the axes that structure social inequalities are gender, socioeconomic status, age, ethnicity and territory (WHO, 2008).

Based on these principles and the Rio Declaration on the Social Determinants of Health, a new approach to public policy-making emerges, 'health in all policies', which systematically considers the health implications of decisions across all sectors. This collaborative approach involves looking for synergies and for policy decisions across sectors to have neutral or beneficial effects on the social determinants of health (WHO, 2013). To understand the impact of social determinants, it is essential to consider the complex social structure in which they interact, with gender playing a central role in this dynamic interaction, as well as affecting all of the Sustainable Development Goal (SDG) 3 (health) targets (WHO, 2021). The social approach to health is addressed through the social determinants and through health education (De La Guardia y Ruvalcaba, 2020). Health promotion is defined as an educational process that enables people to have more control over their health through the adoption of healthy habits while health education is understood as the discipline whose mission is to improve the health of individuals and communities through lifestyle changes and empowerment (WHO, 2013).

Health promotion is directly related to health education (Meras and Rodríguez, 2021), described as a discipline that seeks to improve people's health through lifestyle changes (WHO, 2021). Health education, on the other hand, helps people to manage their living conditions, as well as assisting communities to organise themselves so that they are in charge of improving their health conditions and developing environments that favour well-being (Glanz et al., 2008). Its objectives include encouraging positive behaviours for healthy living, promoting environmental modifications that contribute to a healthier environment, and empowering individuals to take an active and co-responsible role in their health care (De La Guardia and Ruvalcaba, 2020). Health education goes beyond the mere transmission of information and teaching of healthy behaviours by going a step further in promoting knowledge and actively generating healthy behaviours (WHO, 2021). In more recent years, the idea that social conditions play a fundamental role in the possibility of maintaining good health has become even more relevant (Ruiz et al., 2022). Therefore, the health system is not solely responsible for health promotion, and collaboration with the education system and a political commitment to mobilise resources to build health-promoting environments are necessary. Health promotion thus becomes a key process for the construction of a human and healthy environment, favouring organisational behaviours that promote collective well-being (Rodríguez et al., 2017). Health education helps people to understand the socioeconomic and environmental causes that affect their health and to take individual and collective action to change lifestyles (De La Guardia and Ruvalcaba, 2020).

In Education 2023: Incheon Declaration and Framework for Action for the realization of Sustainable Development Goal 4, it is established that quality education is the foundation of well-being and seeks to ensure inclusive and equitable education that enables the development of competencies for responsible decision-making. It is emphasized that quality education is the foundation of well-being and the tool to achieve gender equality, considering education as the most relevant modifiable social determinant (Sirignano and Martínez-Roig, 2023).

The existing relationship between health and education is highlighted, which allows for educational actions focused on the health and well-being of people that can be carried out through the opportunities offered by non-formal education spaces and promote the development of competencies that allow for responsible decision-making in their lives. Comprehensive health education that positively affects, and is a priority for, population groups that are particularly influenced by gender considerations, such as the group of women shellfish gatherers, allowing the connection between gender, health and, in this case, emotional health to be explored.

**Socio-Labor Context of Women Shellfish Gatherers and Emotional Health Perspective**

On the website of the Ministry of the Sea of the Autonomous Community of Galicia, shellfishing is described as the activity that includes the breeding, capture, and collection of mollusks, crustaceans, and other marine invertebrates, and includes tasks of sowing and maintaining the areas designated for this activity. Women shellfish gatherers on the beaches and coasts carry out this occupation, with great socio-economic importance in the Galician fishing sector while shellfishing from boats is mostly done by men. Among the social determinants to which women shellfish gatherers are exposed, influencing their emotions, we focus on the specific socio-labor conditions marked by gender inequality and opportunities.

The fishing sector is highly masculinized, and the shellfishing sector on foot is highly feminized. The female predominance in the geographical area where this study is circumscribed is found in the data published by the Galician Institute of Statistics (IGE) over the last 5 years. As shown in Table 1, the total number of exploitation permits for the development of extractive activity (Pérmex) in the Rías of Pontevedra and Arousa seems to reflect a downward trend in recent years, while the percentage between men and women remains similar. The permits granted to women range between 77% and 82% of the total.

**TABLE 1**  
**PRESENCE OF WOMEN WITH EXPLOITATION PERMITS IN THE SECTOR**

Year	Total Professionals	% Men	% Women
2018	1850	21%	79%
2019	1851	23%	77%
2020	1873	18%	82%
2021	1811	18%	82%
2022	1789	18%	82%

Source: Own elaboration based on IGE 2022 data.

The shellfish gatherers have played a fundamental role in the local economy, and their work has been recognized for its valuable contribution to the culture and identity of Galicia (MAPA, 2020). In the mid-1990s, the shellfishing sector on foot underwent a significant transformation towards professionalization, shifting from an individual activity to a more organized one that includes complementary tasks such as seed transfer and cultivation, area cleaning, and monitoring of shellfish beds. Although physical tasks are still mostly performed by men, the role of women in the fishing and aquaculture sectors in Europe is evolving (Mahou, 2008).

These women have been involved in struggles and protests to defend their rights and preserve their natural environment. However, gender differences in the distribution of work still exist (MAPA, 2021). The gender perspective is fundamental in this situation, given that this activity has historically been performed by women and undervalued. Shellfish gatherers face discrimination in access to resources and opportunities and perform unpaid activities essential to fishing, such as loading and unloading, cleaning, and preparing family boats, etc. Additionally, there are differences in terms of a lower degree of responsibility for shellfish gatherers and a lower level of participation in decision-making (Frangoudes, 2020). They often balance their work with household chores and family care, which implies a double workday and an overload of responsibilities, low wages, poor working conditions, lack of access to training and professional development, lower participation in decision-making, and lack of leadership, affecting their well-being and that of their families (MAPA, 2021; Zhao et al., 2013).

In recent years, the role of women in this field has gained more relevance, and numerous fishing policies have expressed their commitment to gender equality. At the national level, the II Plan for Gender Equality in the Fishing and Aquaculture Sector 2021-2027 stands out. At the regional level, the Xunta de Galicia has adopted policies to support shellfish gatherers, protect their rights and the natural environment, within a general framework such as the VIII Strategic Equality Plan 2022-2027 or the I Equality Plan of the Xunta de Galicia, signed on October 6, 2023.

Several studies have pointed out the interconnection between SDG 5 (gender) and SDG 14 (life below water), directly related to fishing (Frangoudes et al., 2020), and although health research is incorporating the gender perspective, there is still a long way to go (MAPA, 2020). In fact, comprehensive health education through non-formal education is a priority in population groups particularly influenced by gender considerations, as is the case with women shellfish gatherers on foot, which also allows exploring the existing connection between gender, health, and emotions, intertwining in this group in a unique and significant way.

Mental and emotional health are fundamental aspects of well-being. Mental health is defined as a state of well-being in which each person can cope with stress, develop skills, learn and work adequately, and contribute to their community. Emotional health refers to the ability to recognize, understand, and manage emotions in a healthy and adaptive way. Mental health is an important dimension of health status and is an integral part of our overall well-being (WHO, 2022).

Lazarus (2000) argues that emotions are a complex system consisting of thoughts, beliefs, motives, meanings, subjective experiences, and physiological states that arise from our struggle for survival due to efforts to understand the world we live in.

Emotions are subjective experiences and psychological and physiological phenomena generated in response to different events, functioning as forms of adaptation to environmental demands. The theory of emotions distinguishes seven different types of emotions or feelings, each with its specific characteristics (Ekman et al., 1972).

In this study, the emotions that have been investigated in depth in relation to mental and physical health are differentiated into two groups based on the dimension of pleasant-unpleasant: positive emotions such as joy, happiness, and love, and negative emotions whose emotional experience is unpleasant. These emotions play a fundamental role in the human experience and can significantly influence people's emotional well-being and mental health (Piqueras et al., 2009). 90% of everyday situations are assumed according to how emotions, whether pleasant or unpleasant, are managed (Cantos and Ponce, 2023).

It is important to understand that emotions are a natural and necessary part of our lives. There are no good or bad emotions; all of them fulfill an adaptive function in different contexts. The literature review suggests avoiding reductionist approaches and considering new variables in the relationship between emotions and health, as this has been studied mainly from a clinical perspective, and there are still few studies that include environmental factors. The role of context is an aspect that has been little analyzed in scientific research, according to the consulted literature, and scarcely addressed. Therefore, it is crucial to consider the importance of labor and social factors in the study of emotional processes and health. Other arguments that justify this study are the importance of health education and well-being of shellfish gatherers and their contribution to scientific knowledge in emotional health for this group. It is relevant for its gender

focus and its novel perspective, as although the link between emotional distress and health problems in women has been studied, it has not been investigated in a group as unique as women shellfish gatherers on foot. This is essential due to the socio-labor reality of this group. Additionally, the participation of the authors in health education actions for the group and the direct observation of their daily work underline the need for a study focused on exploring the emotions of these women, which, without reaching the category of disorder, can influence their health.

The general objective of this research is to explore in depth the emotional health perspective of women shellfish gatherers on foot, from their experiences and daily professional situations. This approach seeks to better detect and understand the influence of the often demanding socio-labor environment and help strengthen their emotional state and well-being. To this end, the following specific objectives were established:

- To identify the roles that women shellfish gatherers on foot recognize in their professional performance and other collaborations and/or participations, grouped by activity sectors.
- To discover the problems and challenges expressed by women shellfish gatherers in relation to different categories of their professional activity.
- To detect emerging problems, challenges, and emotional states in relation to specific socio-labor situations they face.
- To discover emotions and emotional states related to issues they experience in different situations chosen and raised in the group and those related to activities carried out directly at sea.

## **MATERIAL AND METHOD**

### **Type of Study and Research Design**

The research is framed within the qualitative paradigm, using the focus group technique for data collection. This approach allows interpreting reality from the participants' perspective, seeking to understand the meanings of their actions and experiences (Barrantes, 2014; Braun and Clarke, 2022; Taylor and Bogdan, 1984). The qualitative design is flexible and adapts to the specific circumstances of the study environment (Hernández et al., 2010). The focus group facilitates the generation of in-depth information about the participants' opinions and actions without seeking to reach agreements. The researchers directly observe, collect data, and conduct a qualitative content analysis, working with the information expressed in the group's speeches and conversations (Rodríguez and Cerdá, 2002). Its exploratory design allows studying reality by approaching it to know and understand it (García and Mateo, 2020). A qualitative research is proposed, included in the interpretative paradigm and the inductive method, focused on exploring the emotions of women shellfish gatherers on foot in the Rías of Pontevedra and Arousa in Galicia, through interaction in focus groups. This research began after significant prior educational work with the group, thanks to the researchers' participation in the cooperation and support network project called "Candieira." This project, aimed at promoting and supporting women of the sea in Galicia through the Local Action Group of the Ría de Pontevedra (GALP), allowed us to establish contact with women in the maritime-fishing sector, especially those dedicated to shellfishing on foot in the beaches, from 2017 to the present. In this non-formal education space, various group educational actions were carried out in different populations of the Rías of Pontevedra and Arousa, focused on improving the comprehensive health and daily activities of the shellfish gatherers in relation to their work. Numerous courses, workshops, and group meetings were held, fostering active participation and generating a positive change in their lives. It was in these meetings that the need to study the emotional perspective on the health of these women was detected. This preliminary phase of the research corresponds to what Goetz and Lecompte (1988) call the "wandering" phase or Schatzman and Strauss (1973) "mapping"; that is, entering the field that provides the database and identifying key informants. Access to the group allowed the identification of key informants, knowing with whom and how to establish contact, the way of recruiting participants, the location and

characteristics of the space where it would be carried out, and the adaptation of the material and guides for the researchers already used in other focus groups.

#### **Planning And Organization Of The Focus Group:**

- Prior contact allowed the sample to be made through telephone contact.
- Type of sampling: Intentional sampling was carried out, selecting participants according to the researchers' interest criteria and the research objectives.
- Structural sample: Includes participants representing the target population, that is, women shellfish gatherers on foot, following specific selection criteria.
- Inclusion criteria: Women shellfish gatherers on foot, who agreed to participate freely and voluntarily, with at least 7 years of work experience in the Ría de Arousa, who have participated in training courses and workshops on health and healthy habits with the researchers, and who report a normal emotional state.
- Exclusion criteria: Those who did not meet the established criteria were excluded.
- Group homogeneity: Homogeneity in educational level and gender was sought to avoid communication problems, although diversity in years of professional experience was sought to obtain a variety of opinions.
- Number of participants: 11 shellfish gatherers were invited, of which 9 participated.

#### **Development:**

- Duration: two hours.
- Date: 21<sup>st</sup> January 2023
- Initial explanation: The purpose of the activity was explained, ensuring the confidentiality and anonymity of the information collected.
- Sociodemographic data: Obtained through a self-administered questionnaire.

#### **Data Collection:**

- Field notes were taken to ensure the accuracy of the information.
- The notes were transcribed.

#### **Analysis Procedure:**

- Keeping in mind the assumptions from which we started the work favors the objectivity of the procedure (Baunido, 2000).
- The inductive content analysis method was used, following Braun and Clarke (2014), to identify emerging categories and themes and understand in depth the context and subjective perspectives of the shellfish gatherers.

#### **Categorization Process:**

- The instrument used is the matrix, a double-entry table that helps evaluate the coherence between different components of the research (Carrasco, 2018; Marroquín, 2012).
- To maintain coherence between objectives, responses, and other aspects of the research method, two identical matrices were designed: one for the socio-labor environment and another for emotions, feelings, and perceptions.
- Each researcher used both matrices to record the information. In Figure 1, the design in three columns and rows is observed: Categorization, Number/code, and Text/content corresponding to the shellfish gatherers' speech. The task consisted of noting expressions, words, and ideas as they were pronounced.

#### **Guide Of Questions:**

The discussion was directed following a semi-structured question guide, focused on two main blocks: the socio-labor environment and emotions.

- Socio-labor environment: Identification of roles, work areas, activity sectors, situations, problems, and challenges.
- Emotions: Experiences, feelings, and emotional perceptions in the different activities, recognition of basic emotions, and emotional distress associated with sector problems.

**Moderator:**

Encouraged equitable participation of all shellfish gatherers, ensuring that topics of interest were addressed and allowing the discussion of opinions without seeking consensus.

**Data Recording:**

- Two researchers, one moderator, and one observer collected the data in tables prepared according to the topic and question guide. The observer took notes without intervening.

**FIGURE 1**  
**MATRIX DESIGN FOR DATA ANALYSIS**

Categorization	Nº	Text/Content...
		Researcher 1: In which areas do you usually perform your work?
	1	-
	2	-
	...	...
		Researcher 2: In which areas do you usually perform your work?
	3	-
	4	-
	5	-
	...	...

Source: Model of own elaboration

**Procedure to Ensure Reliability**

- Independent analysis: The analysis was conducted by two researchers who individually analyzed and classified the text.
- Compilation of results: The principal researcher combined the two sets of results into coded tables for later discussion.
- External collaboration: After coding the data, the researchers sought the support of an external researcher. The parties met to confirm the correct association of data and validate the reliability of the results. They also discussed the impressions generated by the focus group participants' responses.
- Triangulation of researchers and data triangulation: The data were compared and contrasted until information saturation was reached, meaning no new themes or categories were identified with additional data (Braun and Clarke, 2019).
- Data representation and management: Microsoft Office Excel 2016 was used to visualize the data.

**Ethical Principles:**

- The ethical principles established in the Declaration of Helsinki were followed.
- The anonymity of the participants was ensured, and their right to self-determination was respected.
- The research had academic purposes, and the confidentiality of all collected information was maintained.

## FINDINGS

The results, as well as the main concepts and ideas handled in qualitative research, can be synthesized and represented using tables or matrices (Codina, 2019). The sample selected for the study has an average age of 49.2 years, with an age range distribution between 37 and 60 years. Regarding their work experience in shellfishing, the average length of service is 18.4 years, with 5 people having less than 20 years of experience and another 4 with experience between 26 and 30 years. The profile of the participants is presented in Table 2.

**TABLE 2**  
**PROFILE OF PARTICIPANTS**

Participant	Professional Category	Gender	Age (years)	Professional Experience (years)
M1	Shellfish Gatherer	F	59	26
M2	Shellfish Gatherer	F	43	7
M3	Shellfish Gatherer	F	59	27
M4	Shellfish Gatherer	F	54	28
M5	Shellfish Gatherer	F	60	30
M6	Shellfish Gatherer	F	37	11
M7	Shellfish Gatherer	F	46	18
M8	Shellfish Gatherer	F	43	9
M9	Shellfish Gatherer	F	42	10

Source: Own elaboration based on the data obtained, 2023

The roles of shellfish gatherers vary depending on the area and the type of shellfish collected. Generally, women shellfish gatherers on foot not only identify their traditional labor roles but also recognize other areas in which they participate or collaborate in some way. These roles are grouped by sectors and presented in Table 3.

**TABLE 3**  
**ROLES GROUPED BY ACTIVITY SECTORS**

Activity roles	Grouping by sectors
<b>Roles in their traditional labor activity</b>	Processing: cleaning, sorting, and preparing the product. Sales and distribution. Sustainable management: ensuring responsible practices. Environmental monitoring.
<b>Roles of participation and/or collaboration in other activities</b>	Training and education. Protection of coastal ecosystems and the rights of shellfish gatherers. Research and science: participation in scientific research.

Based on the roles, general categories of activity were obtained, and the main problems and challenges identified by them in the everyday situations they face were related.



**TABLE 4**  
**PROBLEMS AND CHALLENGES IN RELATION TO ACTIVITY CATEGORIES**

General activity categories	Problems and challenges
<b>Occupational health and safety</b>	Exposure to extreme weather conditions. Risk of injuries, such as cuts or sprains. Exposure to chemicals and contaminants in the water. Long-term problems due to exposure to water and adverse conditions
<b>Sustainability and conservation</b>	Depletion of marine resources due to unsustainable harvesting. Environmental impact of harvesting practices. Government regulations and restrictions affecting their activity.
<b>Economic and social</b>	Unstable income due to variations in the quantity and quality of shellfish. Gender discrimination and inequality of opportunities. Difficulty accessing credit and financial services. Need for improvement in job security and social protection.
<b>Market access and commercialization</b>	Fluctuating prices and limited bargaining power with intermediaries. Transportation and storage costs.
<b>Training and education</b>	Lack of access to training and education programs. Limitations in adopting more sustainable practices due to lack of knowledge.
<b>Climate change and environmental variability</b>	Rising sea levels and extreme weather events affecting harvesting areas. Changes in the distribution and abundance of shellfish due to climate change.
<b>Rights and participation</b>	Lack of recognition and respect for the rights of shellfish gathering communities over local resources. Limitations in participation in decision-making processes related to marine resource management.
<b>Mental health and well-being</b>	Stress and exhaustion related to the physical nature of the work. Concerns about the sustainability of their way of life and traditional occupation.

Table 5 shows the emotional states identified by the shellfish gatherers themselves in their daily work activities:

**TABLE 5**  
**PROBLEMS AND EMERGING EMOTIONAL STATES IN RELATION TO THE SITUATIONS THEY FACE**

Situations they face	Emerging problems and emotional states.	Collected stages
<b>Work pressure:</b>	Shellfish gathering can be physically exhausting and emotionally stressful. The pressure to meet quotas, especially in adverse conditions, can generate stress, anxiety, frustration, and emotional exhaustion.	“When the weather conditions are difficult, being at sea is not easy, and the pressure to meet the quota leaves me exhausted.”
<b>Financial insecurity:</b>	The variability of income due to fluctuations in the quantity of shellfish and prices can cause constant concern about supporting their families and meeting basic needs.	“I never know what I will earn. Every day the price is different.”

<b>Environmental impact:</b>	The effects of climate change, such as rising sea levels and climate variability, can threaten the stability of harvesting areas and degrade coastal ecosystems, generating feelings of guilt or sadness, especially if they feel they are not contributing enough to maintaining their work environment.	“Climate change greatly affects our shellfish because they die when the water and sand temperature increases. It is very sad to see your planting work lost.”
<b>Concern for their future:</b>	Uncertainty about the sustainability of the activity and environmental changes due to climate change can generate anxiety about the future of their occupation and their ability to continue as shellfish gatherers in the long term.	“I am very worried if I will be able to continue being a shellfish gatherer in the future with all these climate changes.”
<b>Gender pressure:</b>	In many shellfish gathering communities, gender pressure forces them to balance their work with family responsibilities, generating emotional stress and internal conflict.	“After working, I spend the rest of the day with the family, the house, and a small garden. It takes a lot of time.”
<b>Access to mental health services:</b>	The lack of access to mental health services makes it difficult for shellfish gatherers to seek help, generating emotional isolation and affecting their well-being.	“I am unaware of many of the health services you talk about. I didn’t know anything about this. They don’t support us.”
<b>Concerns about sustainability:</b>	The decline in marine resources and uncertainty about long-term sustainability generate concern and distress among shellfish gatherers.	“The decline in clams worries me a lot and constantly distresses me.”
<b>Generational transition:</b>	The difficulty of passing on their knowledge to new generations can generate anxiety about the possible loss of their culture and way of life.	“It makes me sad to think that the new generations are not interested in continuing our tradition. They are joining the sector, but they lack love for the sea.”
<b>Loss of traditions:</b>	The lack of access to mental health services makes it difficult for shellfish gatherers to seek help, generating emotional isolation and affecting their well-being.	“I am unaware of many of the health services you talk about. I didn’t know anything about this. They don’t support us.”

Table 6 shows the connections between emotions and social issues specific to the sector.

**TABLE 6**  
**EMOTIONS DETECTED IN DIFFERENT SPECIFIC SECTOR ISSUES**

<b>Specific Sector Issue</b>	<b>Detected Emotions</b>	<b>Situations Presented</b>
<b>Fight for equality</b>	Joy, Anger, Determination, Hope, Empowerment	Joy for advances in gender equality and laws protecting their rights. Anger at persistent discrimination. Determination and empowerment in facing gender violence. Hope for an equitable future.
<b>Poaching</b>	Anger, Frustration, Fear	Anger at seeing their work affected by illegal fishing. Frustration at the lack of support to stop it. Fear of reprisals and unfair competition threatening their job security.

<b>Gender violence</b>	Determination, Empowerment	Empowerment in seeking support and protection. Although not mentioned as an immediate problem, they identify misogyny machismo in the sector.
<b>Labor exploitation and discrimination</b>	Anger, Contempt, Frustration	Frustration and anger at gender inequalities and work overload. Contempt for those who belittle their work due to gender or occupation.
<b>Job and environmental insecurity</b>	Fear, Disgust	Fear of financial insecurity due to bans and red tides. Fear of the impact of climate change. Disgust at handling contaminated shellfish and unsanitary conditions.
<b>Recognition and appreciation</b>	Joy, Determination, Frustration	Joy for successes at work and solidarity. Frustration at the lack of appreciation for their work and the scarcity of recognition as legitimate labor activity.

Table 7 shows the relationship between the activity of the shellfish gatherers in contact with the sea and the emotions that arise in response to their challenges and risks.

**TABLE 7**  
**EMOTIONS IN RELATION TO ACTIVITIES DIRECTLY PERFORMED AT SEA**

<b>Emotions</b>	<b>Activity in contact with the sea</b>
<b>Fear</b>	The dangers of the sea, such as adverse weather conditions, strong currents, and the risk of drowning, generate fear among the shellfish gatherers.
<b>Frustration</b>	The lack of catches or obstacles, such as faulty equipment, generate frustration.
<b>Satisfaction and pride</b>	Success in gathering generates satisfaction and pride. Additionally, the work provides satisfaction by facilitating work-life balance thanks to the schedules.
<b>Stress and anxiety</b>	The uncertainty of catches and the pressure to meet deadlines and quotas generate stress and anxiety.
<b>Joy</b>	An abundant catch generates joy and satisfaction among the shellfish gatherers.
<b>Hope and determination</b>	Despite the challenges, many shellfish gatherers maintain hope and determination, as they depend on this work for their livelihood.
<b>Appreciation for nature</b>	The activity at sea generates a deep appreciation for the beauty and fragility of the environment, creating a connection with nature. They enjoy working outdoors, their “office with a view.”
<b>Guilt</b>	The negative environmental impact, such as overfishing or ecosystem degradation, can generate feelings of guilt.
<b>Admiration</b>	Overcoming challenges, such as a storm or repairing equipment, generates admiration for the bravery and skill of the shellfish gatherers.

## DISCUSSION

The lack of specific scientific literature on the emotional distress of women shellfish gatherers poses challenges in discussing and interpreting the results. This discussion is divided into two main sections: the

socio-labor environment and the emotions and experiences of individuals and groups. It highlights the importance of emotional well-being and the consequences of not adequately addressing this aspect in specific populations, such as shellfish gatherers.

The results regarding the socio-labor environment place shellfishing on foot at the lower end of the fishing activity spectrum. Shellfish gatherers are not immune to gender discrimination, a transversal issue in their work environment. Although the sector has become professionalized, they face structural challenges and discrimination that affect their work and emotional experiences. In addition to their traditional roles, they participate in associations and collaborate in research studies. They are qualified professionals with extensive knowledge of resources and their exploitation (sowing, cleaning, harvesting, and monitoring processes), hold special permits to practice their profession, and have versatile skills that allow them to perform different roles within the sector, although these roles may vary depending on the area and type of shellfish collected. They are increasingly represented in the power structures of guilds and associations, although still far from the desired level (MAPA, 2016). These structural challenges are consistent with what the shellfish gatherers described in the research. Besides their traditional roles, they engage in other activities, such as associations and research collaborations.

Shellfish gatherers in Galicia face challenges that affect their work, health, and quality of life, such as labor exploitation, water pollution, climate change, unfair competition from often cheaper imported shellfish, and the lack of recognition of their work, which hinders the protection of their rights and the guarantee of fair working conditions. These challenges are consistent with previous studies (Mahou, 2008; Zhao et al., 2013; Frangoudes et al., 2020).

The daily challenges and satisfactions they face were revealed, as well as the importance of health education as a tool to strengthen their emotional health in the unique context of shellfishing. The health of the population would significantly improve if health promotion strategies were established from the perspective of health determinants.

Regarding emotions, shellfish gatherers experience a mix of emotions in response to the challenges they face in their work life, and these emotions can influence their overall emotional and mental well-being. Some forms in which the emotional distress of shellfish gatherers may be more directly related to gender and gender dynamics in their community have been identified. These forms were grouped into: gender discrimination; household inequalities; gender violence; difficulties in accessing resources and services; and gender stereotypes. The mentioned studies identify challenges similar to those faced by the shellfish gatherers in this study, such as labor exploitation, environmental challenges, and lack of recognition.

Basic emotions identified include anger at perceived injustice or discrimination, contempt for those who exploit resources unsustainably, fear of the dangers of the sea and the loss of their livelihood, and disgust at unsanitary conditions. These emotions are related to gender discrimination, household inequalities, gender violence, difficulties in accessing resources and services, and gender stereotypes.

They expressed emotions and feelings such as stress and anxiety over the loss of culture and way of life, and the lack of recognition and respect for their rights. They feel overlooked; stress and exhaustion from the physical nature of the work; frustration and emotional exhaustion from the lack of successful catches; pressure to meet collection quotas despite any adversity; concern for the sustainability of their way of life; uncertainty due to unstable income from market variability, losing the ability to support their families, and the lack of generational replacement; guilt and sadness over the effects of climate change that threaten the stability of collection areas and coastal degradation, and guilt if they feel they may contribute to the destruction of their work environment; gender pressure to meet certain cultural expectations or balance their work with family responsibilities; sadness and nostalgia over the loss of traditions and knowledge related to shellfish gathering. It is noted that regarding feelings produced by possible gender violence in the sector, it was never mentioned, as if it did not occur or they were unaware of such situations in their environment. They do not recognize misogyny in the fishing sector in their immediate environment, commenting on it as a social issue discussed in the media and social networks.

In seeking to address their distress, and despite the challenges, it was found that shellfish gatherers experience positive emotions that, while not solving their emotional distress, help them cope with related situations: joy and satisfaction from good moments of camaraderie and solidarity with other shellfish

gatherers in the community, as they report a high sense of companionship or when they succeed in their work and achieve successful catches at high prices; for advances in the fight for gender equality, such as the enactment of laws protecting the rights of shellfish gatherers; for the work-life balance their schedules allow; hope from achievements in the fight for equality, inspiring hope for a more equitable and just future; determination and empowerment for those women who, in fighting against gender inequality, feel determination and empowerment as they seek support and take measures to help their community; satisfaction and pride from successful shellfish gathering, which can generate a sense of satisfaction and pride in a job well done; appreciation for nature, as working at sea often leads to a deep appreciation for the beauty and fragility of the marine environment, creating feelings of connection with nature; and finally, admiration for overcoming challenges at sea, such as weathering a storm or repairing damaged equipment, leading to admiration for the bravery and skill of the women working at sea.

The connection between these issues and emotions underscores the importance of creating an environment where shellfish gatherers and coastal communities have access to resources and services that help them face these challenges and promote emotional well-being and gender equality. It is also essential to address structural problems to ensure the long-term safety and sustainability of the activity for those who depend on shellfish gathering as their livelihood. The consequences of not addressing emotional distress are frustration, guilt, and general discomfort, which in medical terms has been called women's distress. In fact, the main reason for women's consultations in Primary Care is related to symptoms whose organic cause is unclear (Piqueras et al., 2019).

Women's health cannot be addressed without considering the conflicts of daily life, which are crucial for evaluating well-being or distress. Exploring the emotional well-being of shellfish gatherers in depth and understanding the factors affecting specific groups can offer paths for more effective and empathetic interventions. Emotions are not static and can vary over time and according to circumstances. The emotions and experiences of shellfish gatherers are intrinsically linked to their socio-labor environment.

Comprehensive attention to emotional and gender needs is essential to improve the quality of life and mental health of shellfish gatherers. Addressing these issues effectively and providing emotional and social support is crucial.

## CONCLUSIONS

The repeated experience of negative emotions in their daily lives forms the basis of emotional distress, which, although not a disorder in itself, can trigger more severe physical or mental pathologies. Ignoring the emotional distress of shellfish gatherers has tangible repercussions, manifesting in symptoms such as frustration, guilt, and general discomfort. Despite the emotional and socio-labor challenges they face, shellfish gatherers have proven to be a resilient group, experiencing positive emotions that help them cope with distress. It is essential to recognize and support this resilience, providing them with the tools and support needed to manage their emotional health.

Gender constructs significantly influence how shellfish gatherers experience and express their health and emotional well-being. It is crucial to address these issues with a gender approach to fully understand their specific experiences and challenges. To address gender-related emotional distress among shellfish gatherers, it is important to promote gender equality in the sector, provide emotional and social support, ensure access to mental health services, raise awareness about gender issues and their impacts on emotional well-being, support the local economy, preserve culture and traditions, develop effective policies, and raise public awareness about the contributions of this group.

Education and health are deeply interrelated, as the former not only facilitates access to information and skills necessary to adopt healthy lifestyles and empowers individuals and communities to improve their living conditions, but it is also a valuable opportunity to develop essential personal skills for self-care and health promotion. Investing in quality education and promoting its integration into health policies is key to reducing inequalities and building healthier and more resilient societies.

Shellfish gatherers have clearly identified the need for specific training and educational actions for recognizing emotional well-being/distress, proposing improvements and emphasizing the importance of

educational actions for their empowerment. This highlights the importance of addressing and considering their specific needs in future health interventions or programs.

Comprehensive attention to the mental health and well-being of shellfish gatherers is required, including access to psychological support services, the promotion of community resilience, the creation of social support networks, and the promotion of more sustainable labor and community practices that can reduce stress and uncertainty. From the healthcare system, it is essential to emphasize Primary Care and health education actions, where raising awareness of these aspects will allow for more proactive and sensitive attention to people's needs.

Relating research on the emotional well-being of shellfish gatherers to health education involves using research findings as a basis for designing programs and resources that specifically address the needs of these workers in terms of mental and emotional health.

Limitations: The results of this study should be interpreted considering some limitations. While this study has provided valuable information, it has inherent limitations, including the inability to fully generalize the findings to the entire group of shellfish gatherers without additional research to delve into more specific aspects. Additionally, the margin of error in data analysis and potential observer bias in drawing conclusions are also limitations of the study.

Future Perspectives: This exploratory study allows for the description of the situation from different perspectives to open various thematic areas for further in-depth studies. The discussion and findings of the study highlight the need for additional research focusing on emotional experiences in their socio-labor environment, with an emphasis on the intersection of gender, work, and health. Future research should consider broader studies and complementary methods to obtain a more comprehensive picture of the emotional well-being of shellfish gatherers.

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## APPENDIX

