



**REPORT:**

**WOMEN IN MARITIME INDUSTRIES**

**AND COVID-19**

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## 1. INTRODUCTION

This report is the results of Wista International – through its Diversity Committee - and Universidade Federal do Espírito Santo in Brazil partnership to monitor the effects of the Covid-19 Pandemic<sup>1</sup> on women in maritime and, more specifically, Wista members.

Covid-19 has enforced a new way of living which includes social distancing, restricted movement, and adjustment to a new norm (Dergiades, et al. 2020). Also, Covid-19 had as a consequence loss of life, impacting families and society (Pedrosa, et al, 2020, Ashraf, 2020). In addition, Covid-19 had a great impact on economics around the world (Ashraf, 2020).

Although everyone suffered from the pandemic crisis, different studies show women and girls were the most affected (United Nations, 2020, Farré, et. al, 2020, Derndorfer et. al, 2021, Craig & Churchill, 2021, Bangladesh, Sarker, 2021). Before Covid-19, there were some growth opportunities for women and diversity in general (United Nations, 2020), and in the maritime industries in particular. Considering this context, **the objective of this research is to know how the pandemic crisis affected the professional and family life of Wista members in different countries around the world.** More specifically we aim (1) to understand the impact of the burden of unpaid work at home on women's careers and their productivity, loss of job or earnings in the immediate future; (2) to understand if new jobs opportunities have arisen as a result of the change in work mode/ work from home because of the Covid-19.

## 2. METHOD

A survey was carried out with the members of Wista. It used an online questionnaire. The questionnaire was divided into two parts, the first asking about sociodemographic data and the second relating to the research objective. The survey was answered in the period between December 2021 and May 2022. The questionnaires were sent out by the Wista office, and 239 valid questionnaires were obtained and analyzed. The data were analyzed using descriptive and inferential statistics.

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<sup>1</sup> To make it easier for the reader, the next times that the term "Covid-19 Pandemic" appears, only the term "Covid-19" will be used.

### 3. RESULTS

The results presentation is divided into four parts. The first part will present the participants' sociodemographic characteristics; the second part will show information about women, leadership, and Covid-19; the third part will present aspects of domestic activities, work, and Covid-19, and; the last part will show the relationship among different psychosocial indicators.

#### 3.1. Participants' sociodemographic characteristics

##### 3.1.1 Age

The total number of respondents was 239. Of these, the youngest respondent is 23 years old and the oldest is 69 years old. The majority are between the ages of 40 and 49. In second place is the age group between 30 and 39 years old, and in third place is the age group between 50 and 59 years old.

**Table 1.** *Distribution of respondents according to age*

Age	Sample	%
23-29	12	5.02
30-39	66	27.62
40-49	94	39.33
50-59	50	20.92
60-69	17	7.11
Total	239	100

##### 3.1.2 Region and Country of residence

There were respondents from different regions. Although most representatives were from Europe, North America, South America, and Asia.

**Table 2.** *Distribution of respondents according to the region of residence*

<b>Region</b>	<b>Sample</b>	<b>%</b>
Europe	128	53.6
North America	43	18
South America	25	10.5
Asia	22	9.2
Central America	9	3.8
Oceania	9	3.8
Africa	3	1.3
<b>Total</b>	<b>239</b>	<b>100</b>

There were people from 32 different countries. The most of respondents reside in the USA. In the sequence, we have Greece, Norway, France, Netherlands, and Sweden. Some countries had fewer than nine respondents and were grouped in the category called "Others". As an illustration, we can highlight that countries such as Spain, Romania, Poland, Nigeria, and Peru had only two respondents or such as Liberia, Colombia, Cyprus, Finland, Guatemala, and Panamá with one respondent.

**Table 3.** *Distribution of respondents according to country of residence*

<b>Country</b>	<b>Sample</b>	<b>%</b>
USA	43	18
Greece	33	13.8
Norway	25	10.5
France	19	7.9
Netherlands	18	7.5
Sweden	11	4.6
Australia	9	3.8
Others	81	34
<b>Total</b>	<b>239</b>	<b>100</b>

### 3.1.3 Race or ethnic group.

The respondents are from different races/ethnic groups. The majority answered they are white (71.55%). The second largest group is Latin (11.30%) and the third largest group is Asian (7.11%). The other races/ethnic groups have less than 3% of the representation.

**Table 4.** *Distribution of respondents according to race or ethnic group*

<b>Race/Ethnic</b>	<b>Sample</b>	<b>%</b>
White	171	71.55
Latino	27	11.30
Asian	17	7.11
Black	7	2.93
Mixed	7	2.93
African	2	0.84
Chinese	2	0.84
Indian	2	0.84
Turkish	1	0.42
Greek	1	0.42
Malay	1	0.42
None	1	0.42
Total	239	100

### 3.1.4 Level of education and years in the maritime industries

The survey identified that the majority of the respondents have at least a master's degree or equivalent. Sequentially, the answers followed the following order of frequency: bachelor's degree or equivalent, doctorate or equivalent, and secondary education.

**Table 5.** *Distribution of respondents according to the level of education*

<b>Level of education</b>	<b>Sample</b>	<b>%</b>
No formal education	0	0
Secondary education	5	2.09
Bachelor's or equivalent	84	35.15
Master's or equivalent	129	53.97
Doctorate or equivalent	17	7.11
Other (please specify)	4	1.67
<b>Total</b>	<b>239</b>	<b>100</b>

Considering the time working in the maritime industry, there are three groups. The first one is working in the industry for 11 to 30 years (59.83%), the second one is working for 1 to 10 years (29.29%), and the third one is working for more than 31 years (10.88%).

**Table 6.** *Distribution of respondents according to years in the maritime industries*

<b>Years in the industry</b>	<b>Sample</b>	<b>%</b>
1-5 years	24	10.04
6-10 years	46	19.25
11-20 years	88	36.82
21-30 years	55	23.01
31-40 years	22	9.21
41-50 years	4	1.67
<b>Total</b>	<b>239</b>	<b>100.00</b>

### 3.1.5 *Position in an organization and yearly income*

The respondents were asked about their position in an organization. The answers varied from a non-managerial position to a senior management position and owner/partner. The highest number of answers was concentrated in a mid-level position (31.38%) and senior management position (26.36%).

**Table 7.** *Distribution of respondents according to position in an organization*

<b>Position in an organization</b>	<b>Sample</b>	<b>%</b>
In a non-managerial position	25	10.46
In a low-level management position	20	8.37
In a mid-level management position	75	31.38
In a senior management position	63	26.36
An Owner/Partner	45	18.83
Other (please specify)	11	4.60
<b>Total</b>	<b>239</b>	<b>100</b>

The majority of respondents (59.83%) earn yearly from 30,000.00 € to 100,000.00 €. There are people that earn over 100,000.00 € (22.59%), between 10,001.00 € to 30,000.00 € (13.39%) and below 10,000.00 € (1.18%).

**Table 8.** *Distribution of respondents according to yearly income*

<b>Yearly income</b>	<b>Sample</b>	<b>%</b>
Below 10,000 EUR	10	4.18
10,001 – 30,000 EUR	32	13.39
30,001- 60,000 EUR	63	26.36
60,001-100,000 EUR	80	33.47
Over 100,000 EUR	54	22.59
<b>Total</b>	<b>239</b>	<b>100</b>

### 3.1.6 Family Characteristics

The respondents were asked if they were in a relationship (married or partnership or cohabiting or similar). The answers were: 72.80% were in a relationship and 27.20% were not in a relationship. Also, the respondents were asked if they were the breadwinner in the family. 43,10% answered yes to the question, 35.98% claim they share the home financial responsibility and 20.92% said no. When asked about having children, 65,69% said yes and 34.31% said no. Of those who said that have children, 32.21% informed the children are under 10 years old.



Also, the respondents were informed about the number of children they have. So, 23.85% have only one child, 30.13% have two children, 8.79% have three children and 2.93% have four or more children. These data show that the average number of children per family is 1.24.

Among the respondents, 30.13% live with children or elderly people, or people who require special care. Regarding the care of children or the elderly or people who require special care 35.23% said that share the care with a family member, 14.77% have a person hired to perform a good part of this activity, 19.32% have a person hired for specific times to perform this activity and 5.68% sometimes have help from a family member. Only, 25.00% of the respondents assume all the care needed by children or elderly people who need special care

### **3.2 Women, leadership, and Covid-19**

The survey asked about the respondent's perception of women's leadership related to community needs during the pandemic crisis. The first question asked if they felt that women are exhibiting leadership (either at work or in their communities) in the pandemic/crisis. The answers were: 61.51 % said yes, 11.30% said no and 27.20% said I don't know. The second question was about if they helped their community during Covid-19. 47.28% answered yes and 52.72% answered no. Of those who said yes, 27.62% informed that had support at home to help the community, and 17.57% claimed that didn't have support at home.

The observed behavior of those who helped the community can be divided into three categories: (1) people who helped the community (neighbors and Non-Governmental Organization - NGO), (2) people who helped workmates and employees, (3) people who helped by following the Covid-19 restrictions such social distancing. The following are some examples of answers obtained in the survey:

- I delivered medicines to old people who needs to stay in their houses prior to have the possibility of being vaccinated.
- I volunteer with a community philanthropic group where we have assisted with crisis work, as well as support community partners in the area who have needed extra support during COVID.
- Donating to different fundraisers and NGOs
- I have not been outwardly focused; I was concerned with getting my team of 27 through the difficult periods.

- Arranging the work sharing - Being fully flexible on the working hours, remote work, vacations period, accepting their requests for day-off, etc.
- stay home, minimize contact points, got vaccinated
- Followed the guidelines set by the city

### 3.3 Domestic activities, work, and Covid-19

One of the objectives of the survey was to understand the relationship between unpaid work, paid work, and Covid-19. So, the survey addressed questions to comprehend these aspects.

First, it was asked about the distribution of domestic activities. According to the respondents, only 20.50% do all domestic activities. The rest of respondents share domestic activities with a family member (38.91%), have some help from a family member in domestic activities (12.55%), have a part-time person hired to do the domestic activities (21.34%), or have a full-time person hired to do the domestic activities (6.69%).

**Table 9.** *Distribution of respondents according to domestic activities/housework*

<b>Domestic Activities/ Housework</b>	<b>Sample</b>	<b>%</b>
I do all the domestic activities.	49	20.50
I share domestic activities with a family member.	93	38.91
I have some help from a family member in domestic activities.	30	12.55
I have a full-time person hired to do the domestic activities.	16	6.69
I have a part-time person hired to do the domestic activities.	51	21.34
<b>Total</b>	<b>239</b>	<b>100</b>

Second, it was asked about domestic activities after the beginning of the Covid-19. According to the data collected, we observed that the majority of the respondents informed that domestic activities increased (54.81%). Also, we observed that only 42,68% claimed that there was practically no change concerning domestic activities and 2.51% informed that domestic activities decreased after the start of the pandemic.

**Table 10.** *Distribution of respondents according to domestic activities/housework after the beginning of the Covid-19*

<b>Domestic activities/housework after the beginning of the Covid-19</b>	<b>Sample</b>	<b>%</b>
There was practically no change in relation to domestic activities.	102	42.68
Domestic activities increased after the start of the pandemic.	131	54.81
Domestic activities decreased after the start of the pandemic	6	2.51
<b>Total</b>	<b>239</b>	<b>100</b>

Third, it addressed questions about the work situation after the start of the pandemic. Most of the respondents informed that they kept working, but remotely (69.46%) or kept working in the same place, but with social distancing (23.01%). Two respondents were on a furlough or temporary suspension and one respondent said she was fired from her job. There was the option to choose the answer “other”. The respondents who chose that answer could explain what happen to them during the pandemic crisis. Some of the answers to that question were:

- Nothing has changed
- Worked remote and then transitioned into a Hybrid workplace, three days in the office [and] two from home
- I kept working, as much as possible but there was MUCH LESS work available.
- Continued working but unable to leave ship
- I chose another job because my previous employer lost his business
- Mix of remote and at work, but able to go to work if I want to
- I kept working remotely during and 2 months, then went back to office
- I kept working in my own office
- I kept working both remotely and office with social distancing (alternate week or as instructed by the Government).
- I worked remotely and then back to the office with sanitary measures

**Table 11.** *Distribution of respondents according to work situation after the beginning of the Covid-19*

<b>Work Situation</b>	<b>Sample</b>	<b>%</b>
I kept working, but remotely.	166	69.46
I kept working in the same place, but with social distancing.	55	23.01
I stopped working, but I still had an employment relationship (furlough or temporary suspension)	2	0.84
I was fired from my job.	1	0.42
Other (please specify)	15	6.28
<b>Total</b>	<b>239</b>	<b>100</b>

Also, it was asked about the amount of work. The objective was to know if the amount of work had increased after the Covid-19. Practically half of the respondents said that they have been working more hours since the pandemic started (49,79%). The rest of the respondents informed that there was no change in working hours (36.40%) and there was a decrease in working hours with the pandemic (13.81%).

**Table 12.** *Distribution of respondents according to work situation after the beginning of the Covid-19*

<b>Working hours</b>	<b>Sample</b>	<b>%</b>
I was working longer hours before the pandemic.	33	13.81
There was practically no change in working hours with the pandemic.	87	36.40
I have been working more hours since the pandemic started.	119	49.79
<b>Total</b>	<b>239</b>	<b>100</b>

In addition, it was questioned about the situation of responsibility at work after the Covid-19 started. The respondents informed that there was practically no change in their responsibilities with the pandemic (53.97%), they have been taking on more

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responsibilities since the pandemic began (35.56%) and they had had more responsibilities at work before the pandemic (10.46%).

**Table 13.** *Distribution of respondents according to responsibility level at work.*

<b>Responsibility level at work</b>	<b>Sample</b>	<b>%</b>
I had more responsibilities at work before the pandemic.	25	10.46
There was practically no change in my responsibilities with the pandemic.	129	53.97
I have been taking on more responsibilities since the pandemic began.	85	35.56
<b>TOTAL</b>	<b>239</b>	<b>100</b>

Another concern of the research was to know about the wage during the period of Covid-19. The majority of the respondents informed that pay didn't change with the pandemic (70.29%). The rest of the respondents said the pay increased (21.34%) or was reduced after the pandemic started (8.37%).

**Table 14.** *Distribution of respondents according to wage situation after the beginning of the Covid-19*

<b>Wage/pay</b>	<b>Sample</b>	<b>%</b>
My pay was reduced after the pandemic started.	20	8.37
My pay hasn't changed with the pandemic.	168	70.29
My pay increased after the start of the pandemic.	51	21.34
My pay is temporarily suspended.	0	0
<b>Total</b>	<b>239</b>	<b>100</b>

Lastly, about this topic, the survey asked about the current work situation of Wista members. They informed there are mainly three situations: working partially from home and partially at the office (39.33%), working full time at the office (35.56%), and working from home full time (24.27%). Only two respondents said their employment is temporarily suspended.

**Table 15.** *Distribution of respondents according to currently work situation after the beginning of the Covid-19*

<b>Currently work situation</b>	<b>Sample</b>	<b>%</b>
Working from home full time	58	24.27
Working partially from home and partially at the office	94	39.33
Working full time at the office	85	35.56
My employment is temporarily suspended	2	0.84
Total	239	100

### 3.4 Psychosocial indicators

We used different indicators to analyze different aspects. The indicators were work-family-related and individual and work performance. Below are listed the different indicators and an example of the item analyzed under each indicator. The indicators analyzed were:

- Work-family aspects:
  - ✓ Work to family enrichment - “My involvement in my Work... Provides me with a sense of success and this helps me be a better family member”
  - ✓ Family to work enrichment - “My involvement in my family... Causes me to be more focused at work and this helps me be a better worker.”
  - ✓ Flexible work culture - “I am able to arrive and depart from work when I want”
  - ✓ Flexible Leadership - “My supervisor acknowledges that I have obligations as a family member.”
  - ✓ Work interferes with family - “Things I want to do at home do not get done because of the demands my job puts on me”
  - ✓ Family interferes with work - “I have to put off doing things at work because of demands on my time at home.”
  - ✓ Flexible work culture - “I am able to arrive and depart from work when I want”
  - ✓ Flexible Leadership - “My supervisor acknowledges that I have obligations as a family member.”

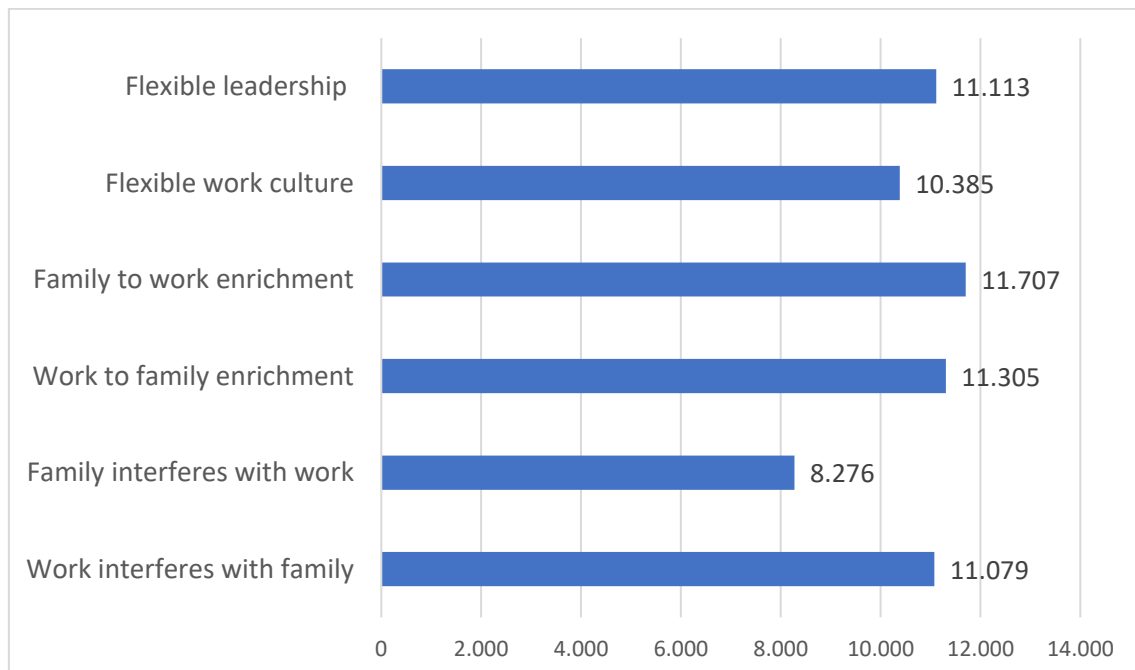
- Individual and work performance:
  - ✓ Individual and work performance
  - ✓ Work engagement - “I am enthusiastic about my job”
  - ✓ Volunteer work culture - “I try to actively contribute to the well-being of my community.”
  - ✓ Life satisfaction - “I am satisfied with my life. ”
  - ✓ Psychological capital - “If I try my best, I can solve difficult problems”

In the sequence, we report the analysis considering the description of the occurrence of the indicators of *work-family aspects* and *individual and work performance* and the predictive ratings of aspects of *volunteer work culture*, *work engagement*, *life satisfaction* and. In the end, we conclude with an analysis of the relationship network of the investigated phenomena.

### 3.4.1 Work-family aspects

Figure 1 and Table 16 present the indicators of *work-family aspects* (work-to-family enrichment, family to work enrichment, flexible work culture, flexible leadership, work interferes with family, family interferes with work).

**Figure 1.** *Work-family aspects indicators*



**Table 16.** *Psychosocial indicators of work-family aspects of respondents*

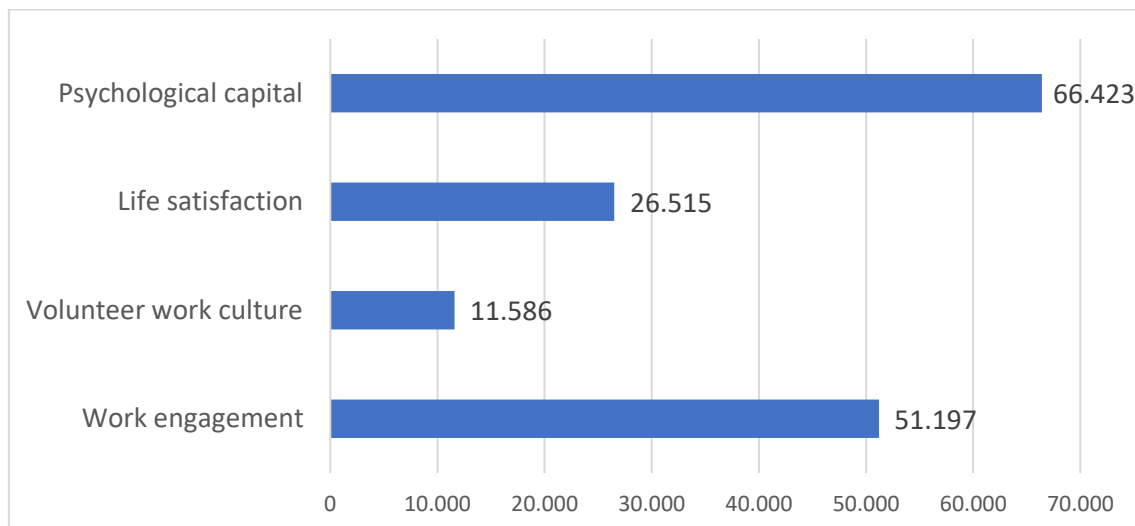
Parameters	low	Wista Indicator	high
Work interferes with family	10.000	11.079	18.000
Family interferes with work	10.000	8.276	18.000
Work to family enrichment	7.500	11.305	15.000
Family to work enrichment	9.291	11.707	15.000
Flexible work culture	7.500	10.385	15.000
Flexible leadership	7.500	11.113	15.000

The indicators show some presence of work interfering with family, high indicators of enrichment between work and family, and high indicators of flexible leadership among respondents.

### 3.4.2 Individual and work performance

Figure 2 and Table 17 present the indicators of *individual and work performance* (work engagement, volunteer work culture, life satisfaction, and psychological capital)

**Figure 2.** *Individual and work performance indicators*





**Table 17.** *Psychosocial indicators of individual and work performance*

Parameter's	low	Wista Indicator	high
Work engagement	40.000	51.197	63.000
Volunteer work culture	8.000	11.586	15.000
Life satisfaction	20.000	26.515	35.000
Psychological capital	45.000	66.423	80.000

The indicators show the presence of work engagement, volunteer work culture, life satisfaction, and high psychological capital among respondents.

### 3.4.3 Predictions analysis

Predictive analysis is a statistical tool for predicting variables or situations. In the present report, we analyzed three variables or aspects: volunteer work culture, work engagement, and life satisfaction.

Table 18 presents a predictive analysis of volunteer work culture.

**Table 18.** *Predictions of volunteer work culture*

Variables	Beta	sig.
Work interferes with family	0.057	0.419
Family interferes with work	0.071	0.283
Work to family enrichment	0.086	0.285
Family to work enrichment	0.066	0.361
Work engagement	0.085	0.247
Life satisfaction	0.084	0.248
<b>Psychological capital</b>	<b>0.252</b>	<b>0.001</b>
<b>Flexible work culture</b>	<b>-0.148</b>	<b>0.035</b>
Flexible leadership	0.108	0.119

Note: The numbers in bold show a significant relationship with the variable volunteer work culture.

In general, we can perceive psychological capital and flexible work culture (inverse or negative) were predictors of volunteer work culture.

Table 20 presents a predictive analysis of work engagement.

**Table 20.** *Predictions of work engagement*

<b>Variables</b>	<b>Beta</b>	<b>sig.</b>
Work interferes with family	0.105	0.097
Family interferes with work	0.014	0.813
<b>Work to family enhancement</b>	<b>0.465</b>	<b>0.00</b>
<b>Family to work enhancement</b>	<b>-0.184</b>	<b>0.00</b>
<b>Psychological capital</b>	<b>0.249</b>	<b>0.00</b>
Flexible work culture	-0.072	0.255
Flexible leadership	0.068	0.278
Volunteer work culture	0.069	0.247
Life satisfaction	0.106	0.104

Note: The numbers in bold show a significant relationship with the variable work engagement.

In general, we can perceive work-to-family enhancement, family to work enhancement (inverse or negative) and psychological capital were predictors of work engagement.

Table 21 presents the predictive analysis of life satisfaction

**Table 21.** *Predictions of life satisfaction*

<b>Variables</b>	<b>Beta</b>	<b>sig.</b>
Work interferes with family	-0.076	0.234
Family interferes with work	-0.044	0.464
work to family Enhancement	-0.019	0.798
<b>Family to work Enhancement</b>	<b>0.126</b>	<b>0.05</b>
<b>Psychological capital</b>	<b>0.35</b>	<b>0.00</b>
<b>Flexible work culture</b>	<b>0.164</b>	<b>0.01</b>
Flexible Leadership	0.029	0.65
Work engagement	0.108	0.104
Volunteer work culture	0.069	0.248

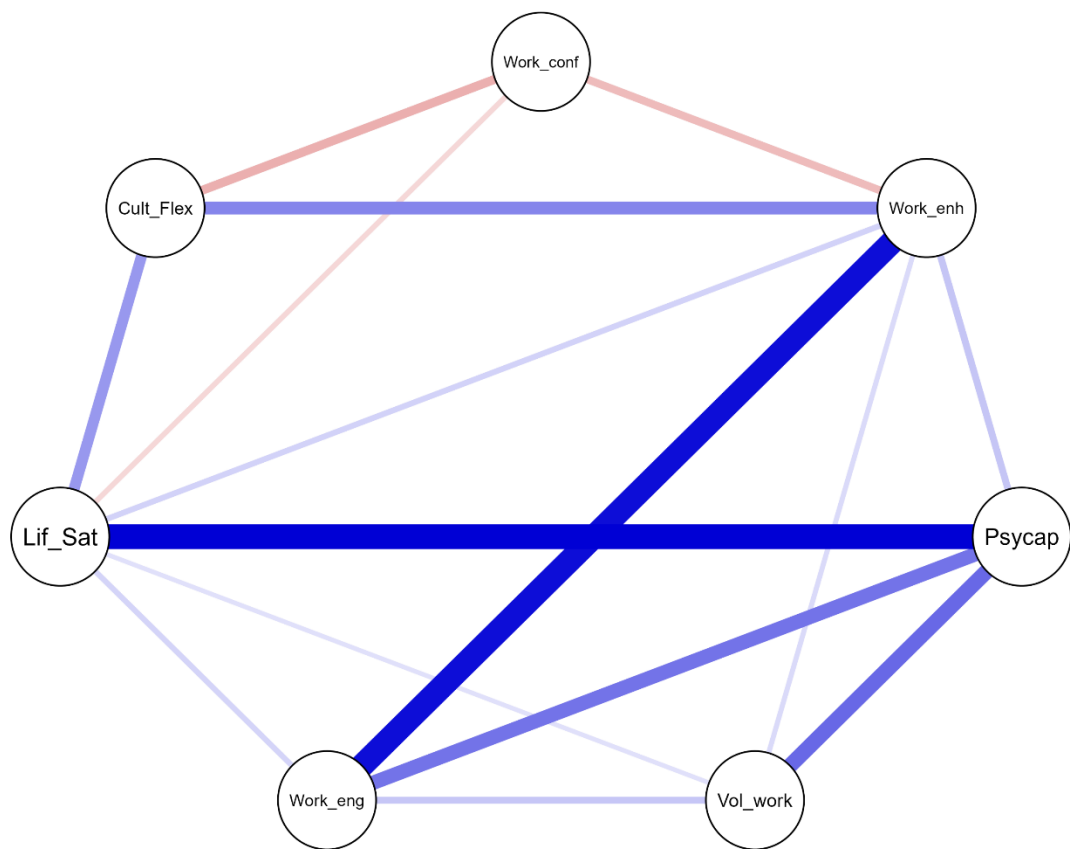
Note: The numbers in bold show a significant relationship with the variable life satisfaction.

In general, we can perceive that family to work enhancement, psychological capital, and flexible work culture were predictors of life satisfaction.

#### 4.4 Network analysis

Network analysis maps relationships between variables in a system. In the present report, the networks analysis investigated the variables of work-family aspects and individual and work performance. Figure 3 presents the network analysis of Wista Psychosocial indicators.

**Figure 3.** *Network analysis*



Legend: Work\_conf = work-Family conflict; Cult\_Flex = Flexible Culture; Work\_enh = work-family enrichment; Lif\_Sat = Life satisfaction; Work\_eng = Work engagement; Vol\_work = Volunteer work culture and; Psycap = Psychological capital.

In general, we can perceive that work-family conflict was negatively associated with life satisfaction and work-family enrichment, and flexible culture at work. Also, we can verify that flexible work culture is associated with life satisfaction and work-to-family enrichment. In sequence, the impact of psychology capital on positive outcomes for organizations and people's life is prominent. People with high psychological capital have

better life satisfaction, work-to-family enrichment, work engagement, and volunteer work culture.

#### **4. RESULTS DISCUSSION AND ANALYSIS**

The objective of the research was achieved as it was possible to understand the impacts of the pandemic on the respondents' professional and family lives. To this end, survey research was conducted in which 239 Wista members participated.

According to the data, respondents generally are from Europe, are between 40 and 49 years old, have a high-level education (master's degree), earn between 30,000.00 € and 100,000.00 € a year, are working in the maritime industries between 11 to 30 years, and are in a mid-level position. Also, it is relevant to mention that a considerable amount answered that they earn above 100,000.00 € a year.

The data show that these professionals are in a privileged position. The average salary found is compatible with the highest salary averages in the world. In this category are countries such as the United States of America (which has the highest average salary - US\$ 74,738), Luxembourg, Iceland, Switzerland, Denmark, the Netherlands, Belgium, and Norway according to the Organisation for Economic Co-operation and Development (OECD, 2022). The vast majority of countries that have the highest average salary in the world are countries in Europe. Most of the respondents are from Europe, and most likely the salaries they receive are compatible with the localities in which they live.

In terms of education, the majority of the respondents have a higher education. Most likely this level of education is a necessity for maritime professionals. However, the number of people who have a master's degree is relevant. These numbers present a highly educated population. Considering the world figures, this is also not a reality observed very commonly in different countries (OECD, 2022).

Most of the respondents work in the maritime industries for some time. That time is compatible with the position held by them. According to the data, most of the respondents are in mid-level positions, but a relevant amount report taking senior management positions.

The data, about family aspects, show that most are married, have children over the age of 10 years old, and are breadwinners in the family. Considering the salary patterns presented, it is expected that most share or are responsible for family support.

The average number of children per family is 1.24. This number is compatible with the fertility rate of European countries, North America, and some South American

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countries, places where most respondents live (The World Bank, 2022). In the last six decades, the worldwide fertility rate dropped and this drop is most pronounced in the countries of Europe and North America (The World Bank, 2022).

During the pandemic period, the female role in terms of leadership was confirmed by most of the respondents. In addition, 47.28% reported that they contributed in some way to their community. The types of contributions involved the following behaviors: helping the community, helping workmates and employees, and following the Covid-19 restrictions. This behavior is consistent with recent research showing that females were more likely than men to engage in social action volunteering (31% higher odds) and neighborhood volunteering (20% higher odds) (Mak & Fancourt, 2022).

Considering household activities and the care of children and elderly who need special care, most share the activity with a family member or with someone hired to do it. A fraction keeps a person hired specifically for this purpose. However, 20.50% take care of all domestic activities. The data shows the female reality in the domestic environment. Although some improvements can be observed concerning the division of domestic activities, women are still the main ones responsible for them. This reality can be explained by gender norms that place the responsibility for domestic activities on women (Pailhé, Solaz & Santos, 2021).

During the pandemic period, household activities increased according to most respondents which include chores and child care. This reality was expected since this has been observed in different contexts and countries (United Nations, 2020), such as Spain (Farré, et. al, 2020), Austria (Derndorfer et. al, 2021), Australia (Craig & Churchill, 2021), and Bangladesh (Sarker, 2021), just to name a few. In these countries it was also found that the greatest burden of extra domestic work was on women, reinforcing gender inequality.

The respondents' reality in terms of work during the Covid-19 period is quite different from the reality observed in different countries where many people lost their jobs (United Nations, 2020, Farré, et. Al, 2020, Derndorfer et. al, 2021, Craig & Churchill, 2021, Bangladesh, Sarker, 2021, Dang, & Nguyen, 2021). Only one respondent reported that she lost her job, all others remained working, either remotely or with social distancing. A small amount did not fully observe the restrictions imposed due to the specifics of the job. As an example, we can cite those who were embarked on a ship at the time the restrictions were imposed.

One possible reason for keeping the job among the respondents is the type of work performed. The workers who were laid off the most during Covid-19 were allocated especially in "quarantined" sectors and non-essential sectors that do not allow for remote work. Moreover, employment losses hit lower-educated workers more than high-educated workers (Farré, et. al, 2020). According to the respondents, work could be developed remotely, which favored job retention. In addition, the work developed by the respondents is highly specialized and relevant to society.

We also observed that the salary did not change for most of the respondents, as well as the level of responsibility at work. However, almost half of the respondents reported an increase in the number of working hours. The increase in working hours was also observed in different studies that addressed workers from the United States or Europe. (DeFillipis, et. Al. 2020, Xiao et al. 2021). The results on salary maintenance are also consistent with the literature since it is observed that income loss is more likely to occur among workers who do not have a college degree and are self-employed (Adams-Prassl et al., 2020).

Currently, most of the respondents have returned to work at the office, but a considerable number are in hybrid work or home office. With the control of Covid-19, it was expected that some of the respondents would return to the office. However, the digital advances that were experienced at work during the pandemic period seem to have contributed to changes in work patterns.

In the literature, several papers attempt to predict the possible impacts of Covid-19 on the work (Przytuła, Strzelec, & Krysińska-Kościańska, 2020, Lund t al, 2021). Overall, there is a prediction that there will be an increase in home office work and the possibility of hybrid models that combine remote and onsite work. Given this reality, one concern refers to policies and practices related to intrinsic motivation, engagement, sense of belonging, and well-being of workers (Przytuła, Strzelec, & Krysińska-Kościańska, 2020).

The survey also investigated different psychosocial indicators among the respondents. We observed the presence of work interfering with family and high indicators of enhancement between work and family. It means the respondents' experienced work interfering with family, that is work activities are spilling over family activities. At the same time, the respondent's experienced that working helps take care of the family. That results confirm the results showed before related to the enhancement of working hours, and domestic activities. The results about work interfering with family

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was kind of expected, as there are several research showing that, specifically among women (Adisa, Aiyenitaju, & Adekoya, 2021, Nikmah, Indrianti, & Pribadi, 2020). The results of enhancement between work and family were quite surprising. The possibility of working during the crisis while others couldn't may explain that result. Also, the daily life at home with everybody together may explain that result. According to a qualitative study developed by Adisa, Aiyenitaju, & Adekoya (2021), the lockdown facilitated the rediscovery of family values and closeness.

The results related to work show the respondents' work environment seems positive. That can be seen by the results of work engagement and flexible work culture. According to the respondents, the work environment allows engagement and allow the employee to organize their work process as they seem better.

Also, according to individual aspects, the respondents believe volunteer work is important. This result confirms the results presented earlier.

In addition, we discover that the respondents usually have good life satisfaction and good psychological capital. That is relevant in at least two aspects. First, good psychological capital can help explain in part the way the respondents deal with the pandemic period. That kind of characteristic leads a person to try to solve problems and maintain hope, optimism, and resilience. Second, it helps to understand that, despite the pandemic period, is possible to maintain life satisfaction. Similar results were found among hotel managers in India during the pandemic period (Pathak, & Joshi, 2021). Hotel managers who had good levels of life satisfaction and psychological capital, "despite of adversities, would make efforts to get over the negativities of Covid-19 and try to get back to normal" (Pathak, & Joshi, 2021, p. 1).

After describing each of the aspects investigated is relevant to comprehend their interaction. So, we investigated the prediction of volunteer work culture, work engagement, and life satisfaction.

The volunteer work culture is seen when there is low flexible work culture. The reasons for that relationship are not clear, but it is possible that when experiencing a low flexible culture, a person feels less satisfied with their work. So one way to find satisfaction is by working as a volunteer. The motivation to volunteer can be divided into four types: (i) altruism, (a) belonging, (b) ego and social recognition, and (c) development and learning (Ferreira, Proenca, & Proenca, 2009). So it is possible that one can look at one of that motives to work as a volunteer.

Work engagement occurs when there is work-to-family enrichment according to the data. So, when a person feels that work in different aspects helps her to be a better family member, she tends to engage in work. Interestingly, work engagement is low when there is family to work enhancement. That means that when family values are present in the workplace, the respondents tend not to get engaged. That is an interesting result and probably is related to the pandemic period when people needed to work remotely. One possible reason for that result is the mix of family and work environment. Probably for the respondents is necessary some distancing between family and work. Another possible reason is that family values in work can contribute to the presence of values not compatible with work, such as patronizing attitudes, inappropriate closeness, and guilty feelings among others. The results need more research exploration to confirm that explanation.

Life satisfaction can be predicted when there is family to work enrichment and flexible work culture. In that way, a flexible work culture, where a person can choose how to perform, allows a person to be satisfied. Also, when some family values are present in work, such as being welcomed and part of the team, a person tends to be satisfied. These results conjugate some freedom and feelings of collectiveness to predict life satisfaction. Both results are documented in the literature (Haar et al., 2014, McNall, Nicklin, & Masuda, 2010).

One individual characteristic that predicts all three variables (volunteer work culture, work engagement, and life satisfaction) is psychological capital, according to the data. So, if a person has self-efficacy, is optimistic, hopeful, and resilient, she tends to be satisfied with life. The high indicator of psychological capital among the group investigated is probably due to their background, level of education, and chosen career in maritime industries. These characteristics probably make this group similar in that aspect.

The network analysis allows an understanding of the interaction among all the indicators investigated. With that analysis is possible to see that work-family conflict is negatively associated with flexible work culture, work-to-family enhancement, and life satisfaction. That shows that work-family conflict is present when there is not a flexible culture. That situation can be found in different papers (Andrade, & Petiz, 2021, French, Dumani, & Shockley, 2018, Taşdelen-Karçkay, & Bakalım, 2017).

A flexible work culture allows a person to arrange their working hours, define their way of work, and understand family demands. That kind of culture inhibits precisely work-family conflict, as can be seen in the literature (Dizaho, Salleh, & Abdullah, 2017).



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Probably, the same happens with work-to-family enhancement. When there is a work-to-family enhancement, there is no work-family conflict. Additionally, the results show life satisfaction is affected when there is the presence of work-family conflict. So when a person has to handle work and family and there is a conflict between those two contexts, people usually are not satisfied. Those findings, also, can be found in the literature (Taşdelen-Karçkay, & Bakalım, 2017)

In sequence, we can see that flexible work culture is associated with work-to-family enhancement and life satisfaction. That association is comprehensible. Once a person perceives a flexible work culture usually, she also experiences enhancing work in the family and life satisfaction. Before, studies already showed the link between flexible work culture and family-work enhancement (Gordon, Whelan-Berry, & Hamilton, 2007) and life satisfaction (Noda, 2020)

The last association shows psychological capital associated with life satisfaction, work engagement, work-to-family enhancement, and volunteer work culture. So, people with high psychological capital have better life satisfaction, usually, assume some volunteer activities, are engaged at work, and experience work-family enhancement. The presence of the relationship between life satisfaction and psychological capital (Turliuc, & Candel, 2022, Choi et al., 2018), work engagement (Joo, Lim, & Kim, 2016) and work-to-family enhancement (Sarwar, et al., 2021) has been discussed before in the literature.

The results of the research favor the comprehension of some aspects of work and family among Wista members. The focus of the research was the period of the pandemic crisis and the consequences for the respondents.

## **5. FINAL CONSIDERATIONS**

The present research presented an overview of the reality of women in the maritime industry, specifically Wista members. It was possible to analyze the family and work situation and the relationship between these two contexts.

The data set shows that these women have been impacted by Covid-19, but to a lesser extent than the world average. One of the impacts observed was an increase in the number of hours worked and an increase in domestic activities. Thus, the balance between work and family is an aspect that needs to be further investigated in future studies.

Another impact observed was the change in work patterns. Most respondents remain in a home office or hybrid work despite the restrictions on Covid-19 being lifted. The results didn't show the appearance of new job opportunities, but it shows the

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persistence of remote work and the presence of hybrid work. The prediction is working patterns will change as we will see an increase in people working in a home office or a hybrid model (home office and onsite work). Thus, it would also be interesting for future studies to investigate the impacts of this pattern change on the industry's productivity and people's lives in the long term.

Also, the data showed the importance of flexible work culture to women handling activities from work and home. So, Human Resources politics should pay attention to favoring a good work environment and embracing a culture that favors flexibility.

## REFERENCES

- Adisa, T. A., Aiyenitaju, O., & Adekoya, O. D. (2021). The work–family balance of British working women during the COVID-19 pandemic. *Journal of Work-Applied Management*.
- Andrade, C., & Petiz Lousã, E. (2021). Telework and work–family conflict during COVID-19 lockdown in Portugal: The influence of job-related factors. *Administrative Sciences, 11*(3), 103.
- Ashraf, B. N. (2020). The economic impact of government interventions during the COVID-19 pandemic: International evidence from financial markets. *Journal of behavioral and experimental finance, 27*, 100371.
- Choi, Y. E., Cho, E., Jung, H. J., & Sohn, Y. W. (2018). Calling as a predictor of life satisfaction: the roles of psychological capital, work–family enrichment, and boundary management strategy. *Journal of Career Assessment, 26*(4), 567-582.
- Craig, L., & Churchill, B. (2021). Working and caring at home: Gender differences in the effects of COVID-19 on paid and unpaid labor in Australia. *Feminist economics, 27*(1-2), 310-326.
- Dang, H. A. H., & Nguyen, C. V. (2021). Gender inequality during the COVID-19 pandemic: Income, expenditure, savings, and job loss. *World Development, 140*, 105296.
- DeFilippis, E., Impink, S. M., Singell, M., Polzer, J. T., & Sadun, R. (2020). *Collaborating during coronavirus: The impact of COVID-19 on the nature of work* (No. w27612). National Bureau of Economic Research.
- Dergiades, T., Milas, C., Panagiotidis, T., & Mossialos, E. (2020). Effectiveness of government policies in response to the COVID-19 outbreak. *SSRN Electronic Journal, 1-25*.

Report: Women in maritime industries and Covid-19 (Wista and Ufes)

Derndorfer, J., Disslbacher, F., Lechinger, V., Mader, K., & Six, E. (2021). Home, sweet home? The impact of working from home on the division of unpaid work during the COVID-19 lockdown. *PLoS one*, 16(11), e0259580.

Dizaho, E. K., Salleh, R., & Abdullah, A. (2017). Achieving Work Life Balance Through Flexible Work Schedules and Arrangements. *Global Business & Management Research*, 9.

Farré, L., Fawaz, Y., González, L., & Graves, J. (2020). How the COVID-19 lockdown affected gender inequality in paid and unpaid work in Spain. *Discussion Paper Series. IZA DP no. 13434*, p. 1-39.

Ferreira, M. R., Proenca, J. F., & Proenca, T. (2009). Motivations and management factors of volunteer work in nonprofit organisations: a literature review. In *8th International Congress of the International Association on Public and Nonprofit Marketing*. 8th International of the International Association on Public and Nonprofit Marketing.

French, K. A., Dumani, S., Allen, T. D., & Shockley, K. M. (2018). A meta-analysis of work–family conflict and social support. *Psychological Bulletin*, 144(3), 284.

Gordon, J. R., Whelan-Berry, K. S., & Hamilton, E. A. (2007). The relationship among work-family conflict and enhancement, organizational work-family culture, and work outcomes for older working women. *Journal of Occupational Health Psychology*, 12(4), 350–364.

Joo, B. K., Lim, D. H., & Kim, S. (2016). Enhancing work engagement: The roles of psychological capital, authentic leadership, and work empowerment. *Leadership & Organization Development Journal*.

Kleven, H., Landai, C., & Sogaard, E. (2019). Children and Gender Inequality: Evidence from Denmark, *American Economic Journal: Applied Economics*, 11, 181-209.

Lund, S., Madgavkar, A., Manyika, J., Smit, S., Ellingrud, K., Meaney, M., & Robinson, O. (2021). The future of work after COVID-19. *McKinsey Global Institute*, 18.

Mak, H. W., & Fancourt, D. (2022). Predictors of engaging in voluntary work during the COVID-19 pandemic: Analyses of data from 31,890 adults in the UK. *Perspectives in Public Health*, 142(5), 287-296.

Nikmah, F., Indrianti, T., & Pribadi, J. D. (2020). The effect of work demand, role conflict, and role ambiguity on work-family conflict (impact of work from home due to the COVID-19 pandemic). *Journal of Family Sciences*, 5(2), 92-102.

Report: Women in maritime industries and Covid-19 (Wista and Ufes)

Noda, H. (2020). Work–life balance and life satisfaction in OECD countries: A cross-sectional analysis. *Journal of Happiness Studies*, 21(4), 1325-1348.

OCDE. (2022) *Average wages*. Available in: <https://data.oecd.org/earnwage/average-wages.htm>. Accessed on: 17th Oct. 2022.

OCDE. (2022) *Population with tertiary education*. Available in: <https://data.oecd.org/eduatt/population-with-tertiary-education.htm>. Accessed on: 17th Oct. 2022.

Pailhé, A., Solaz, A., & Stanfors, M. (2021). The great convergence: Gender and unpaid work in Europe and the United States. *Population and Development Review*, 47(1), 181-217.

Pathak, D., & Joshi, G. (2021). Impact of psychological capital and life satisfaction on organizational resilience during COVID-19: Indian tourism insights. *Current Issues in Tourism*, 24(17), 2398-2415.

Pedrosa, A. L., Bitencourt, L., Fróes, A. C. F., Cazumbá, M. L. B., Campos, R. G. B., de Brito, S. B. C. S., & Simões e Silva, A. C. (2020). Emotional, behavioral, and psychological impact of the COVID-19 pandemic. *Frontiers in psychology*, 11, 566212.

Przytuła, S., Strzelec, G., & Krysińska-Kościańska, K. (2020). Re-vision of future trends in human resource management (HRM) after COVID-19. *Journal of Intercultural Management*, 12(4), 1-22.

Sarker, M. R. (2021). Labor market and unpaid works implications of COVID-19 for Bangladeshi women. *Gender, Work & Organization*, 28, 597-604.

Sarwar, F., Panatik, S. A., Sukor, M. S. M., & Rusbadrol, N. (2021). A job demand–resource model of satisfaction with work–family balance among academic faculty: Mediating roles of psychological capital, work-to-family conflict, and enrichment. *Sage Open*, 11(2), 21582440211006142.

Taşdelen-Karçkay, A., & Bakalım, O. (2017). The mediating effect of work–life balance on the relationship between work–family conflict and life satisfaction. *Australian Journal of Career Development*, 26(1), 3-13.

The World Bank (2022). *Fertility rate, total (birth per women)*. Available in: <https://data.worldbank.org/indicator/SP.DYN.TFRT.IN>. Accessed on: 17th Oct. 2022.

Timms, C., Brough, P., O'Driscoll, M., Kalliath, T., Siu, O. L., Sit, C., & Lo, D. (2015). Flexible work arrangements, work engagement, turnover intentions, and psychological health. *Asia Pacific Journal of Human Resources*, 53(1), 83-103.

Report: Women in maritime industries and Covid-19 (Wista and Ufes)

Turliuc, M. N., & Candel, O. S. (2022). The relationship between psychological capital and mental health during the Covid-19 pandemic: A longitudinal mediation model. *Journal of health psychology, 27*(8), 1913-1925.

United Nations. 2020. *UN Policy Brief: The Impact of COVID-19 on Women*. 9 April. <https://reliefweb.int/sites/reliefweb.int/files/resources/policy-brief-the-impact-of-covid-19-on-women-en.pdf>

Xiao, Y., Becerik-Gerber, B., Lucas, G., & Roll, S. C. (2021). Impacts of working from home during COVID-19 pandemic on physical and mental well-being of office workstation users. *Journal of Occupational and Environmental Medicine, 63*(3), 181.

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