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Quality of Life, Anxiety, and Depression in Peruvian Patients with Acute Coronary Syndrome

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Abstract: The current study aims to identify the factors associated with anxiety and depression in patients with acute coronary syndrome (ACS) at hospital discharge from a Peruvian health center. Patients at discharge from the cardiology hospitalization service between November 2019 and December 2020 were evaluated using a cross-sectional study. The median time elapsed from the ACS event to the interview date was 10 months. A total of 34.1% of the population presented mild depression and 78.8% had mild anxiety. All three of our analyses indicated that patients who had attended university had significantly lower levels of both depression and anxiety, and patients with diabetes had significantly higher levels of anxiety. The lower-low socioeconomic group had 1.5 times the frequency of depression (p-value = 0.002) and 3.12 times the frequency of anxiety (p-value = 0.050). Interestingly, while a good quality of life was associated with lower levels of depression, it was also associated with higher levels of moderate/severe anxiety (p-value = 0.035). A multiple regression analysis found that hypertension was also associated with higher levels of anxiety, and patients who have had COVID-19 had 21.05 times the level of moderate/severe anxiety (p-value = 0.000). Cases of ACS are more frequent in patients with an age greater than or equal to 60 years, as well as in males. Isolation was a common feature that may have a negative impact on their quality of life and mental health.

Keywords: quality of life; anxiety; depression; Peru; acute coronary syndrome; ACS

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1. Introduction

Cardiovascular diseases are the leading cause of death in developed countries, and ACS is the most important causal factor [1]. The incidence of acute coronary syndrome (ACS) varies from country to country, with higher rates in the USA and Europe [2]. Over the past 20 years, the incidence of ACS with ST-segment elevation has decreased markedly, whereas that of ACS without ST-segment elevation has doubled [3]. Although the incidence of ACS has decreased in developed countries, its prevalence has increased due to the progressive aging of the population [4]. According to the World Health Organization (WHO), an estimated 17.5 million people died from this cause in 2012, comprising 31% of all deaths registered worldwide [5]. In Peru, the RENIMA II study, conducted in 2010 by

the Peruvian Cardiological Society, revealed 1609 cases of acute myocardial infarction, of which 1345 occurred in Lima (83.6%) and 264 occurred in the provinces (16.4%) [6].

Anxiety symptoms are common among patients with ACS. The prevalence of anxiety in these patients has ranged between 15 and 50% [1]. The persistence of anxiety in the event of ACS affects the quality of life and worsens the cardiac health status [2]. Higher rates of mortality and adverse cardiovascular events have also been reported among patients with this disease [3]. Additionally, depressive symptoms are especially prevalent in patients recently hospitalized for ACS. The prevalence of major depression and depressive symptoms during hospitalization in patients who have had an ACS is estimated to be between 26 and 50% [7]. These symptoms persist in 45% of patients, while 9% to 15% report post-hospitalization depressive symptoms [8]. The experience of a brief period of depression during and after a coronary crisis is common and can be considered a normal reaction to the experience of illness; it has been described as part of the adjustment process to a stressful event [9].

Regarding the impact of depression on the prognosis of patients with cerebrovascular disease, a meta-analysis reported that depressive symptoms double the risk of mortality in cardiac patients with depression [10]. These data reflect the general trend of prospective studies, systematic reviews, and other meta-analyses that have found a significant association between depressive symptoms or major depression and increased cardiac morbidity and mortality after ACS [11]. Anxiety and depression are described in different studies related to cardiovascular disease [3,4]. In this study, we evaluated the progression over time of these two pathologies in the months following the initial episode of ACS. We recorded their progression over a period of 6 months, where both depression and anxiety seem to exert their greatest influence on morbidity and mortality after acute myocardial infarction or unstable angina. The aim of the study was to determine the association between the level of quality of life and the presence of anxiety and depression in patients with ACS at hospital discharge in a health center from November 2019 to December 2020.

2. Methodology

2.1. Study Design

An analytical cross-sectional study was conducted through telephone calls between October and December 2020, during social isolation due to COVID-19. The study focused on patients with ACS who were seen in the cardiology service of the Almanzor Aguinaga Asenjo National Hospital from November 2019 to December 2020.

2.2. Participants

Only patients over 18 years old who had access to coverage from at least one telephone network and the availability of at least one landline or portable telephone were included. Patients with more than one episode of ACS before treatment in 2019–2020 were excluded. Non-probability sampling was used due to the small population size. In this regard, we considered the entire population as the study sample. The population consisted of 105 patients during the study period. Among them, 85 responded to the interview, 8 refused to participate, and 12 were not able to be contacted because the phone number was incorrect. The response rate was therefore 91.4%. The entire accessible population that answered phone calls and agreed to participate in the study was evaluated.

2.3. Variables and Instruments

The questionnaire was divided into six sections, covering demographic data, socioeconomic level, Barthel index, quality-of-life index, and Hamilton's test. The demographic data included information on educational level (elementary, secondary, technical, university), marital status (single, cohabiting, married, widowed), occupation (employed, unemployed, housekeeper, retired), socioeconomic level (upper, middle, upper-low, lower-low, marginal), sex (male, female), age (<60 years, ≥60 years), number of children (continuous data), self-reported caregiver dependence (no, yes), isolation (no, yes), COVID-19 (no, yes), sedentary

lifestyle (no, yes), previous psychiatric treatment (no, yes), current psychiatric treatment (no, yes), major depression (Hamilton test), anxiety (Hamilton test), alcoholism (no, yes), smoking (no, yes), obesity (no, yes), diabetes (no, yes), hypertension (no, yes), and cancer (no, yes). For analysis purposes, housekeepers and employed individuals were joined as one category, representing that the person performed an activity (regardless of receiving payment or not). In the case of socioeconomic level, the upper and middle categories were joined so that statistical power was not affected in the multiple regression analysis.

The Hamilton anxiety test was used to assess the risk of suffering from anxiety, which consists of a survey evaluation of 14 parameters, 13 of which refer to anxious signs and symptoms, and the last one assesses the patient's behavior during the interview. The following cut-off points were considered: 0–17 (no anxiety–mild anxiety), 18–24 (moderate anxiety), 25–30 (severe anxiety), >30 (very severe anxiety). The Hamilton anxiety test has good discriminant validity ($p < 0.001$), adequate convergent validity (MADRS–Hamilton Depression Rating Scale: $p < 0.05$ and 0.01), and high internal consistency (Cronbach's α: MADRS = 0.88; HARS = 0.89). The presence of anxiety disorder was defined as a score of 18 or more, obtained from the sum of scores of the 14 items on anxiety disorder symptoms of the test [12].

The Hamilton depression test was used to assess the risk of suffering from depression; the most recent version consists of a survey evaluation of 17 parameters [12]. Depression was defined as a score of eight points or more, obtained from the sum of scores obtained in the 17 items on depressive symptoms of the test. The test has good internal consistency, with a Cronbach's alpha between 0.76 and 0.92, a high intraclass correlation coefficient (0.92), and interobserver reliability ranging between 0.65 and 0.9 [13]. The correlation of the Hamilton depression test with other global depression assessment instruments, such as the Montgomery–Asberg depression scale, the depressive symptomatology inventory, and the Bech melancholy scale, ranges between 0.8 and 0.9 [14].

The Barthel index was used to assess the patient's degree of dependence, which is a scale used in clinical practice to measure and evaluate the person's capacity to perform ten basic activities of daily living, obtaining a score with which a quantitative estimate of the degree of dependence can be made. The Barthel index is comprised of 10 items, and the score scales for these items vary from 0 to 15 points (0 to 5 points in two items, 0 to 10 points in six items, and 0 to 15 points in two items). Therefore, the overall score can range from 0 (entirely dependent) to 100 points (independent). The reliability (internal consistency) of the Barthel Index was high, with a Cronbach's Alpha of 0.86–0.92 for the original version of the Barthel Index [15]. Dependency was defined as a score of less than 100, obtained from the sum of the 10 dependency parameters.

The quality of life index adapted from Robles et al. was used to assess the quality of life of the study population, which takes into account 10 parameters in its evaluation: psychological well-being, physical well-being, self-care, occupational functioning, interpersonal functioning, emotional and social support, community and service support, personal fulfillment, spiritual satisfaction, and an overall assessment of quality of life [16]. The total score ranges from 0 to 10 (0 being a poor quality of life and 10 being a good quality of life). The reliability of the quality-of-life index is high, with a Cronbach's alpha of 0.86 [17].

2.4. Procedures

A detailed explanation was provided during the telephone calls regarding their participation in the study and the risks and benefits of participation. Due to the change in the methodology of this study, it was not possible to sign an informed consent form for the surveys conducted in the months after September 2020. However, surveys conducted during this period had the verbal authorization of informed consent from participants during telephone calls. Due to the current COVID-19 pandemic and social distancing measures, the period between hospital discharge from the cardiology service and collection was variable, ranging from a few days to 12 months after discharge.

2.5. Statistic Analysis

The descriptive analysis estimated the absolute and relative frequencies of categorical variables. In the case of numerical variables, a normal distribution was evaluated, according to which the best measure of central tendency and dispersion was estimated. The chi-square test was used to identify the association between mental health and quality-of-life outcomes and the rest of the secondary independent variables after evaluating the expected frequency assumption. A significance level of 5% was used. The simple and multiple regression analysis evaluated the association between quality of life and mental health outcomes by constructing generalized linear models, using the Poisson distribution family and the log link function with robust variance. Prevalence ratios (PR) and 95% confidence intervals were estimated. The analysis was performed using Stata version 15.0 (Stata Corp. College Station, TX, USA).

2.6. Ethical Aspects

The present research was approved by the Ethics and Research Committee of the Hospital Nacional Almanzor Aguinaga Asenjo and the Universidad San Martin de Porres. During data collection, the patients surveyed were informed about the research objectives. Patient confidentiality was respected during the collection, processing, and analysis of the data, with a commitment not to divulge the personal data of the patients. Only patients who agreed to participate voluntarily and consciously were included in the study after verbal confirmation of consent during the phone call.

3. Results

Of a total of 85 patients surveyed, the majority were 60 years of age or older (56.5%), were male (76.5%), had a higher educational level (38.8%), had a cohabiting marital status (45.8%), and had an upper-low economic level (40.0%). A total of 55.3% were employed. The median time that elapsed from the ACS event to the interview date was 10 months. A total of 52.9% of the population was in mandatory social isolation. A total of 14.1% reported having had COVID-19, and 24.7% were on medication for psychiatric pathologies at the time. A total of 42.3% and 25.9% reported the frequent use of alcohol and tobacco, respectively. Regarding medical history, 21.1% reported having diabetes, and 40% responded that they were hypertensive; only 7.1% mentioned that they suffered from some neoplastic pathology. Of the surveyed population, 50.6% presented a Barthel Index score corresponding to the independent classification. In addition, 70.6% had a good quality of life. A total of 34.1% and 78.8% of the population presented depression and mild anxiety, respectively (Table 1).

In the bivariate analysis (Table 2), a higher proportion of depression (92.0%) was observed in patients with a poor/regular quality-of-life index, compared to 73.3% in the good quality-of-life group (p = 0.055). Additionally, a higher proportion of depression was found in patients lacking higher education compared to patients that did have higher education (89.6% vs. 64.9%, p = 0.006). Furthermore, non-smokers had a lower frequency of depression than smokers (84.1% vs. 63.6%, p = 0.043). In terms of anxiety, no differences were observed in the quality of life reported by the participants. However, there was a higher proportion of anxiety in patients with no higher education (29.2% vs. 10.8%; p = 0.040). A higher frequency of anxiety was also observed in non-alcoholics compared to alcoholics (30.6% vs. 8.3%; p = 0.013). In addition, patients who reported diabetes demonstrated a higher frequency of anxiety compared to patients who reported being non-diabetic (38.9% vs. 16.4%, p = 0.038).

The simple regression analysis (Table 3) found that having a good quality-of-life index decreased the frequency of having depression by 21% (PR = 0.79, 95%, CI 0.65–0.96). In addition, a higher level of education decreased the frequency of depression by 28% (PR = 0.72, 95%, CI 0.55–0.93), while belonging to a lower socioeconomic class increased the frequency of depressive symptoms by 50% (PR = 1.5, 95%, CI 1.16–1.93). In the multiple regression analysis, the findings of the simple regression analysis were confirmed regarding the educational level and quality-of-life variables. A higher educational level (PR = 0.75,

95%, CI 0.58–0.97) and good quality-of-life index (PR = 0.66, 95%, CI 0.47–0.94) were negatively associated with depression.

Table 1. Characteristics of patients with ACS.

Characteristics		N (%)
Age (Years)		
	<60	37 (43.5)
	≥60	48 (56.5)
Sex		
	Male	65 (76.5)
	Female	20 (23.5)
Education		
	Elementary	19 (22.4)
	Secondary	29 (34.1)
	Technical	4 (4.7)
	University	33 (38.8)
Number of children		2.29 ± 1.15
Marital status		
	Single	2 (2.4)
	Cohabiting	39 (45.8)
	Married	32 (37.6)
	Widowed	6 (7.1)
	Divorced	6 (7.1)
Occupation		
	Employed	47 (55.3)
	Unemployed	16 (18.8)
	Housekeeper	4 (4.7)
	Retired	18 (21.2)
Socioeconomic level		
	Upper	7 (8.2)
	Middle	23 (27.1)
	Upper-Low	34 (40.0)
	Lower-Low	12 (14.1)
	Marginal	9 (10.6)
Time elapsed since ACS (months) *		10 (1–13)
Caregiver dependency		19 (22.3)
Isolation		45 (52.9)
Sedentary lifestyle		41 (48.2)
Previous psychiatric treatment		18 (21.2)
Current psychiatric treatment		21 (24.7)
Self-report of risk factors		
	COVID-19	12 (14.12)
	Obesity	18 (21.1)
	Diabetes	18 (21.1)
	Hypertension	34 (40.0)
	Cancer	6 (7.1)
	Alcoholism	36 (42.3)
	Smoker	22 (25.9)
	Depression	26 (30.6)
	Anxiety	25 (29.4)
Barthel Index		
	Severe	10 (11.8)
	Moderate	29 (34.1)
	Mild	3 (3.5)
	Independent	43 (50.6)

Table 1. *Cont.*

Characteristics		N (%)
Quality-of-Life Index		
	Poor	2 (2.3)
	Fair	23 (27.1)
	Good	60 (70.6)
Depression		
	No	18 (21.2)
	Mild	29 (34.1)
	Moderate	17 (20.0)
	Severe	10 (11.8)
	Very severe	11 (12.9)
Anxiety		
	Mild	67 (78.8)
	Moderate	11 (12.9)
	Severe	6 (7.1)
	Very severe	1 (1.2)

* Mean (range).

Table 2. Factors associated with depression and anxiety in patients with ACS, bivariate analysis.

Variables	Depression		*p* *	Anxiety		*p* *
	No (n = 18) n (%)	**Yes (n = 67) n (%)**		**Mild (n = 67) n (%)**	**Moderate/Severe–Very Severe (n = 18) n (%)**	
Age (years)			0.533			0.326
<60	9 (24.3)	28 (75.7)		31 (83.8)	6 (16.2)	
≥60	9 (18.8)	39 (81.2)		36 (75.0)	12 (25.0)	
Sex			0.162			0.084
Male	16 (24.6)	49 (75.4)		54 (83.1)	11 (16.9)	
Female	2 (10.0)	18 (90.0)		13 (65.0)	8 (35.0)	
Marital status			0.459			0.459
Unmarried	4 (28.6)	10 (71.4)		10 (71.4)	4 (28.6)	
Married/cohabitant	14 (19.7)	57 (80.3)		57 (80.3)	14 (19.7)	
Number of children ¶ **	2.29 ± 1.15	2.35 ± 1.21		2.22 ± 1.04	2.55 ± 1.50	
Level of education			**0.006**			**0.040**
No university	5 (10.4)	43 (89.6)		34 (70.8)	14 (29.2)	
University	13 (35.1)	24 (64.9)		33 (89.2)	4 (10.8)	
Occupation			0.516			0.129
Unemployed/retired	6 (17.7)	28 (82.3)		24 (70.6)	10 (29.4)	
Employed/housekeeper	12 (23.5)	39 (76.5)		43 (84.3)	8 (15.7)	
Socioeconomic level			0.105			0.159
High/Medium	10 (33.3)	20 (66.7)		26 (86.7)	4 (13.3)	
Upper-Low	6 (17.7)	28 (82.3)		28 (82.4)	6 (17.6)	
Lower-Low	0 (0.0)	12 (100.0)		7 (58.3)	5 (41.7)	
Marginal	2 (22.2)	7 (77.8)		6 (66.7)	3 (33.3)	
Time elapsed since ACS **			0.386			0.149
<9 months	4 (15.4)	22 (84.6)		23 (88.5)	3 (11.54)	
≥9 months	14 (23.7)	45 (76.3)		44 (74.6)	15 (25.4)	
Caregiver dependency			0.514			0.534
No	15 (22.7)	51 (77.3)		53 (80.3)	13 (19.7)	
Yes	3 (15.8)	16 (84.2)		14 (73.7)	5 (26.3)	
Isolation			0.778			0.434
No	9 (22.5)	31 (77.5)		33 (82.5)	7 (17.5)	
Yes	9 (20.0)	36 (80.0)		34 (75.6)	11 (24.4)	

Table 2. *Cont.*

Variables	Depression		p *	Anxiety		p *
	No (n = 18) n (%)	**Yes (n = 67) n (%)**		**Mild (n = 67) n (%)**	**Moderate/Severe–Very Severe (n = 18) n (%)**	
COVID-19			0.726			0.266
No	15 (20.6)	58 (79.4)		59 (80.8)	14 (19.2)	
Yes	3 (25.0)	9 (75.0)		8 (66.7)	4 (33.3)	
Sedentarism			0.717			0.218
No	10 (22.7)	34 (77.3)		37 (84.1)	7 (15.9)	
Yes	8 (19.5)	33 (80.5)		30 (73.2)	11 (26.8)	
Alcoholism			0.840			**0.013**
No	10 (20.4)	39 (79.6)		34 (69.4)	15 (30.6)	
Yes	8 (22.2)	28 (77.8)		33 (91.7)	3 (8.3)	
Smoker			**0.043**			0.107
No	10 (15.9)	53 (84.1)		47 (74.6)	16 (25.4)	
Yes	8 (36.4)	14 (63.6)		20 (90.9)	2 (9.1)	
Obesity			0.440			0.440
No	13 (19.4)	54 (80.6)		54 (80.6)	13 (19.4)	
Yes	5 (27.8)	13 (72.2)		13 (72.2)	5 (27.8)	
Diabetes			0.440			**0.038**
No	13 (19.4)	54 (80.6)		56 (83.6)	11 (16.4)	
Yes	5 (27.8)	13 (72.2)		11 (61.1)	7 (38.9)	
Hypertension			0.914			0.129
No	11 (21.6)	40 (78.4)		43 (84.3)	8 (15.7)	
Yes	7 (20.6)	27 (79.4)		24 (70.6)	10 (29.4)	
Cancer			0.779			0.779
No	17 (21.5)	62 (78.5)		62 (78.5)	17 (21.5)	
Yes	1 (16.7)	5 (83.3)		5 (83.3)	1 (16.7)	
Barthel Index			0.663			0.201
Severe	2 (20.0)	8 (80.0)		7 (70.0)	3 (30.0)	
Moderate	5 (17.2)	24 (82.8)		24 (82.8)	5 (17.2)	
Mild	0 (0.0)	3 (100.0)		1 (33.3)	2 (66.7)	
Independent	11 (25.6)	32 (74.4)		35 (81.4)	8 (18.6)	
Quality-of-life index			0.055			0.681
Poor/Regular	2 (8.0)	23 (92.0)		19 (76.0)	6 (24.0)	
Good	16 (26.7)	44 (73.3)		48 (80.0)	12 (20.0)	

* p-value calculated with the chi-square test of independence. ** Mean and standard deviation. ¶ p-value calculated with Student's t-test.

As for anxiety, in the simple regression analysis, no association was found with quality of life. In addition, consuming alcohol reduced the frequency of anxiety by 73% (PR = 0.27, 95%; CI: 0.84–0.87). People with diabetes had a 136% higher frequency of anxiety than non-diabetics (PR = 2.36, 95%, CI: 1.06–5.25). Interestingly, the multiple regression analysis indicated that that having a good quality-of-life index was positively associated with the presence of anxiety (PR = 7.01, 95%, CI: 1.14–42.93). Additionally, the factors associated with a higher frequency of anxiety were: time since ACS being greater than or equal to 9 months (PR = 4.74, 95%, CI: 1.38–16.2), self-report of having had COVID-19 (PR = 21.05, 95%, CI: 5.03–88.36), people with diabetes (PR = 12.25, 95%, CI: 2.38–62.96), hypertensive (PR = 3.81, 95%, CI: 1.19–12.16), and a lower socioeconomic status (PR = 6.91, 95%, CI: 1.79–26.64). In contrast, consuming alcohol was negatively associated with having anxiety (PR = 0.14, 95%, CI: 0.05–0.35).

Table 3. Factors associated with depression and anxiety in patients with ACS, multiple regression analysis.

		Depression			Anxiety		
		PR	**IC 95%**	***p* ***	**PR**	**IC 95%**	***p* ***
Age (years)							
	<60	Ref.			Ref.		
	≥60	0.93	0.71–1.21	0.591	0.37	0.11–1.23	0.107
Sex							
	Female	Ref.			Ref.		
	Male	1.09	0.83–1.42	0.523	2.52	0.87–7.26	0.086
Marital status							
	Unmarried	Ref.			Ref.		
	Married/Cohabiting	1.05	0.72–1.53	0.780	1.01	0.38–2.71	0.969
Level of education							
	No university	Ref.			Ref.		
	University	0.75	0.58–0.97	**0.034**	0.27	0.06–1.13	0.073
Occupation							
	Unemployed/Retired	Ref.			Ref.		
	Employed/Housekeeper	1.04	0.80–1.35	0.753	0.35	0.11–1.05	0.063
Socioeconomic level							
	High/Medium	Ref.			Ref.		
	Upper-Low	1.04	0.75–1.44	0.801	0.91	0.26–3.13	0.882
	Lower-Low	1.21	0.88–1.66	0.232	6.91	1.79–26.64	**0.005**
	Marginal	1.17	0.73–1.88	0.501	1.82	0.24–13.80	0.559
Number of children		1.08	0.98–1.20	0.081	0.70	0.40–1.24	0.227
Time elapsed since ACS							
	<9 months	Ref.			Ref.		
	≥9 months	0.93	0.66–1.31	0.683	4.74	1.38–16.2	**0.013**
Isolation		0.80	0.55–1.18	0.272	1.82	0.39–8.36	0.438
Sedentary lifestyle		1.00	0.77–1.30	0.983	1.03	0.32–3.24	0.960
Self-reported risk factors							
	COVID-19	0.94	0.69–1.27	0.707	21.05	5.03–88.36	**0.000**
	Obesity	0.89	0.63–1.25	0.515	0.47	0.05–4.03	0.499
	Diabetes	0.98	0.70–1.37	0.924	12.25	2.38–62.96	**0.003**
	Hypertension	1.04	0.81–1.34	0.730	3.81	1.19–12.16	**0.024**
	Cancer	0.74	0.47–1.16	0.196	0.43	0.11–1.67	0.229
	Alcoholism	1.19	0.90–1.58	0.217	0.14	0.05–0.35	**0.000**
	Smoker	0.75	0.54–1.05	0.100	0.12	0.00–4.55	0.254
Barthel Index							
	Severe	Ref.			Ref.		
	Moderate	1.23	0.85–1.78	0.265	0.15	0.01–2.08	0.159
	Mild	1.34	0.82–2.19	0.239	1.64	0.09–29.58	0.734
	Independent	1.32	0.86–2.03	0.194	0.67	0.04–10.33	0.775
Quality-of-life index							
	Poor–regular	Ref.			Ref.		
	Good	0.66	0.47–0.94	0.023	7.01	1.14–42.93	**0.035**

* *p* value measured with the chi-square test. Ref.: Reference value.

4. Discussion

4.1. Main Findings

In the present study, 29.6% of the population reported a poor or fair quality-of-life index. Among the factors associated with depression, the following were found: lack of a higher education level, being a non-smoker, poor/regular quality of life, and having a

lower socioeconomic level. Among the factors associated with anxiety, we found: lack of a higher education level, non-alcoholic, diabetic, and poor/regular quality-of-life index.

4.2. Quality of Life

It was found that 70.6% of the population studied had a good quality-of-life index, and only 2.3% had a poor quality of life. This finding is similar to another study carried out in Spain, where 54.5% of the patients with ACS had a good quality of life [18], and 86.4% of patients with coronary artery disease had a good quality of life. However, this contrasts with a study by Loáisiga Ledezma [19] that reported a good quality-of-life frequency of 37% [20]. Our study's finding of 29.6% of the ACS patients reporting a poor or fair quality-of-life index parallels what has been found in other studies in both Mexico [21] and the USA [22]. The fact that 7 out of 10 patients in our study reported having a good quality of life could be because the patients have a low dependence on their caregivers and are people with a high level of education. A total of 50.6% of the patients received a classification of independent in the Barthel Index, and a large percentage (38.8%) had attended university.

4.3. Dependence

Slightly less than half of the patients interviewed had at least some level of dependence according to the assessment made with the Barthel index, which is consistent with what has been described in other studies [21,22]. Delor et al. found that 46% of patients with ischemic stroke had some level of dependency [23]. However, the results contrast with what was reported in a study by Ceme et al.: 11% of the population studied were classified as independent [15], which could be because their study assessed dependence 3 months after discharge, whereas our study assessed patients 10 to 13 months after discharge. Therefore, the higher proportion of patients belonging to the independent classification in the present study could be attributed to the longer time left for recovery and rehabilitation from the disease in the surveyed population.

4.4. Mental Health Disorders

The prevalence of depression in patients after ACS events is significantly increased compared to the general population because it has been shown that patients with ACS have a greater predisposition to present stressful events, as well as being more exposed to the threat of death and the loss of autonomy, which become stressors that generate depression. In this investigation, almost 8 out of 10 patients presented depression, which is consistent with what has been described in previous studies [24,25]. However, these results are higher than those described by Jayakumar et al. [26], who found that 46.1% of patients with myocardial infarction presented depression. Doyle et al. reported a depression rate of 65% in patients with myocardial infarction [27]. Almost two-thirds of these patients usually have symptoms of depression months after the event [27,28].

Additionally, it was found that most of the patients surveyed presented mild anxiety (78.8%), and 12.9% and 7.1% of the patients interviewed presented moderate and severe anxiety, respectively, which is consistent with mild anxiety levels ranging from 16% to 50% in patients with heart failure [29,30]. Tran et al. found that the prevalence of moderate to very severe anxiety in patients discharged for acute coronary syndrome was 18.8% [31]. Esquivel et al. found lower proportions of mild (25.9%), moderate (11.5%), and severe (0.7%) anxiety [32]. The high frequency of mild anxiety in the patients could be due to the symptomatology of the adjustment syndrome, which could have produced false positives in the performance of the Hamilton anxiety test [33].

The high frequency of anxious and depressive symptoms in the studied population, as indicated by Murphy et al., indicates that patients are more anxious or depressed after an acute cardiac event and are even more prone to another subsequent event [31]. Likewise, the current SARS-CoV-2 pandemic produces a strong psychological impact on the population, which is exposed to the meaningful action of the media causing disturbance and fear of contagion [34]; indeed, the confinement of people causes an increasingly lower mood due to

the confinement [35,36]. The COVID-19 pandemic has revealed and intensified pre-existing disparities and challenges among people living with chronic illness in terms of material resources, psychosocial status, social support, and access to care [37]. In post-pandemic times, it is critical to address failures in health and wellness policies to foster equity and the social inclusion of people with other comorbidities [38].

4.5. Association between the Quality of Life and Mental Health Disorders

It was found that patients with a good quality of life had a 34% lower frequency of depression, which parallels what was reported in a similar study conducted in Portugal by Dias et al., who found that patients with a good quality of life had a 34% lower frequency of depression [39]. Likewise, these findings are similar to those reported by Apaza, who found that a poor quality of life is associated with depression in the elderly [39]. A probable explanation for the association between quality of life and depression is the influence of individual satisfaction and its relationship with the perception of their health; therefore, when this is not fulfilled in the patient with ACS, more significant stressors would occur, which impact their mental health and result in increased levels of depression [40].

On the contrary, having a good quality of life was paradoxically associated with a higher frequency of presenting moderate/severe anxiety, contrary to what has been found in multiple studies where low levels of quality of life are related to higher anxiety scores [30,41]. This finding could be a result of patients with coronary syndrome alone being more vulnerable to psychosocial distress and social isolation [42].

4.6. Other Factors Associated with Mental Health Disorders

In the current study, having a higher educational level decreased the frequency of presenting depression, which Gan et al. [43] support. The study from Gan et al. was conducted in women and established that a lower educational level is associated with more depressive symptoms, which may be due to people with a higher level of education having a better economic income with which they can improve their health and satisfy their basic needs [44].

The self-reported COVID-19 diagnosis was associated with having a higher frequency of moderate/severe anxiety levels, similar to that reported by Lau et al., who noted that the pandemic has increased the frequency of anxiety in patients with cardiovascular disease [45]. This association could be explained by social isolation, the fear of contagion, and a lack of follow-up of their disease due to health restrictions, causing an increase in stressors and the frequency of anxiety. Unexpectedly, it was found that patients who reported alcoholism had a lower frequency of moderate/severe anxiety. Gimeno et al. support this, indicating that the consumption of alcohol appears to be a strategy to reduce anxiety [46]. These results contradict those reported in other studies [47,48], which suggest that patients could consume alcohol as a form of fun and social interaction, which would not have an impact on anxiety. The result in this study could be explained by the low number of participants that experienced severe anxiety, so interpretation cannot be adequately supported by the data.

The self-report of diabetes was associated with a higher frequency of moderate/severe anxiety, which is consistent with the findings of Huang et al., which indicated that that the prevalence of anxiety was higher among patients with DM2 than in the general population [49]. It also parallels the results of Tajfard et al., who reported that anxiety is a potentially important concern among patients with diabetes [50]. These high levels of anxiety could be explained by the deterioration of the patient's quality of life caused by diabetes mellitus, as well as the economic impact of the need for constant medication for the treatment of the disease. It could also be explained by the multiple micro and macroangiopathic complications of diabetes mellitus, which can increase the risk of anxious symptoms in the patient and increase the frequency and intensity of these symptoms [51].

Hypertensive patients had a higher frequency of moderate/severe anxiety, which is consistent with the findings of Cheung et al., who found a positive association between arterial hypertension and anxiety [52]. It also is consistent with the findings of Wie et al.,

who found that 12% of hypertensive patients had anxiety [53]. This association could be explained by the constant concern among patients with ACS of presenting cardiovascular pathology again, unlike healthy patients [54].

Regarding socioeconomic status, it was found that belonging to the lower socioeconomic stratum was associated with a higher frequency of moderate/severe anxiety, which is similar to the findings of Gan et al., who mention that the lower economic stratum is associated with a more significant presence of mental disorders such as anxiety [43]. Contrary to what has been reported, socioeconomic status is not associated with anxiety in men but rather only in women [55]. This association could be explained by the fact that people with a low SES represent a vulnerability to health problems in most studies, which typically show synergistic effects that exacerbate the health consequences of hazardous exposure [56].

4.7. Implications of the Findings for Public Health

These findings are important for public health in terms of better controlling comorbidities such as diabetes, which can affect the mental health of the patient. It is also notable that the education level is a relevant determinant for health, as patients with a higher education have more tools to meet their needs and decrease mental disorders such as anxiety and depression. Findings like this can guide public health strategies for minimizing mental health issues in patients with ACS.

4.8. Limitations and Strengths

This study has some limitations. First, there may be information bias; due to the state of health emergency due to COVID-19, telephone interviews were the most feasible way to collect data from patients. Self-reported data may have also led to incorrect responses due to memory or social acceptability bias. In addition, the time that elapsed from the ACS event to the evaluation was approximately 1 to 13 months. Within this period, there could be variation in the quality of life and the level of anxiety or depression. Further, selection bias is possible, since the findings of this study represent only one hospital site. The sampling method was non-random; thus, the findings of this study may not be applicable to the entire population of interest. Finally, the sample size was small, and it could have caused type 2 error in the multiple regression analysis. It is noteworthy that the study was conducted in pandemic times, during which a significant percentage of patients presented COVID-19 and were exposed to social isolation and fear of contagion, death, and non-continuation of their treatment.

5. Conclusions

The quality of life and level of education are protective factors for anxiety and depression in patients with ACS at hospital discharge. Cases of ACS are frequent in people around 60 years of age, males, those with an upper-low socioeconomic status, and those who are isolated for fear of SARS-CoV-2 infection.

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Informed Consent Statement: All the survey participants were well versed in the study intentions and were required to consent before enrollment.

Data Availability Statement: The data presented in this study are available on request from the corresponding author.

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References

1. Hurtado, E.; Bartra, A.; Osada, J.; León, F.; Ochoa, M. Frecuencia de factores de riesgo cardiovascular en pacientes con síndrome isquémico coronario agudo, Chiclayo. *Rev. Med. Hered.* **2019**, *30*, 224–231. [CrossRef]
2. Ferreira, I. Epidemiología de la enfermedad coronaria. *Rev. Esp. Cardiol.* **2014**, *67*, 139–144. [CrossRef]
3. Borda, L.; Razzeto, L.; Rey, J.; Medina, F.; Mormontoy, W. Estrategias de reperfusión usadas en pacientes con síndrome coronario agudo con elevación persistente del segmento ST en un hospital general: Reperfusion strategies in patients with acute coronary syndrome and persistent ST-segment elevation in a general hospital. *Rev. Med. Hered.* **2015**, *26*, 35–41.
4. Borstnar, C.R.; López, F.C. *Farreras Rozman. Medicina Interna*; Elsevier Health Sciences: Amsterdam, The Netherlands, 2020.
5. Organización Mundial De La Salud. Prevención Y Control De Las Enfermedades Cardiovasculares. Available online: https://www.who.int/cardiovascular_diseases/es/ (accessed on 1 January 2022).
6. Reyes, M.; Heredia, J.; Campodónico, S.; Drago, S.; Alvarado, O. Registro Nacional de infarto miocárdio agudo (RENIMA). *Rev. Peru Cardiol.* **2008**, *34*, 84–98.
7. Arevalo, J.J.; Soto, K.A.; Caamaño, B. Depresión en síndromes coronarios agudos: Aplicación de la escala Beck Depression Inventory. *Rev. Colomb. De Psiquiatr.* **2014**, *43*, 2–6. [CrossRef]
8. Di Benedetto, M.; Lindner, H.; Hare, D.L.; Kent, S. The role of coping, anxiety, and stress in depression post-acute coronary syndrome. *Psychol. Health Med.* **2007**, *12*, 460–469. [CrossRef] [PubMed]
9. Cerezo Reséndiz, S.; Hernández Pozo, M.d.R.; Rodríguez Ortega, G.; Rivas Lira, R.A. Efectos de una intervención de manejo de estrés en mujeres con hipertensión arterial sistémica. *Acta Colomb. De Psicol.* **2009**, *12*, 85–93.
10. Barth, J.; Schumacher, M.; Herrmann-Lingen, C. Depression as a Risk Factor for Mortality in Patients with Coronary Heart Disease: A Meta-analysis. *Psychosom. Med.* **2004**, *66*, 802–813. [CrossRef]
11. Lemos, M.; Agudelo Vélez, D.M. Consideraciones sobre la depresión como factor de riesgo en pacientes cardiovasculares. *CES Psicol.* **2015**, *8*, 192–206.
12. Banco de Instrumentos y Metodologia en salud Mental. Ficha técnica del instrumento: Escala de Evaluación para la Depresión de Hamilton. Available online: https://bi.cibersam.es/busqueda-de-instrumentos/ficha?Id=57 (accessed on 1 January 2022).
13. Carrozzino, D.; Patierno, C.; Fava, G.A.; Guidi, J. The Hamilton Rating Scales for Depression: A Critical Review of Clinimetric Properties of Different Versions. *Psychother. Psychosom.* **2020**, *89*, 133–150. [CrossRef]
14. Ma, S.; Yang, J.; Yang, B.; Kang, L.; Wang, P.; Zhang, N.; Wang, W.; Zong, X.; Wang, Y.; Bai, H.; et al. The Patient Health Questionnaire-9 vs. the Hamilton Rating Scale for Depression in Assessing Major Depressive Disorder. *Front. Psychiatry* **2021**, *12*, 747139. [CrossRef] [PubMed]
15. Cid-Ruzafa, J.; Damián-Moreno, J. Valoración de la discapacidad física: El indice de Barthel. *Rev. Esp. De Salud Pública* **1997**, *71*, 127–137. [CrossRef]
16. Robles, Y.; Saavedra, J.E.; Mezzich, J.E.; Sanez, Y.; Padilla, M.; Mejia, O. Índice de calidad de vida: Validación en una muestra peruana. *Rev. An. De Salud Ment.* **2016**, *26*, 33–43.
17. Lugo, A.; García, H.I.; Gómez, C. Confiabilidad del cuestionario de calidad de vida en salud SF-36 en Medellín, Colombia. *Rev. Fac. Nac. De Salud Pública* **2006**, *24*, 37–50.
18. García, E. Depresión como factor de riesgo de la calidad de vida y depresión postinfarto, en pacientes con síndrome coronario agudo, en el área de salud de Soria. Available online: https://dialnet.unirioja.es/servlet/tesis?codigo=204928 (accessed on 1 January 2022).
19. Loáisiga Ledezma, H.; Benavides Santos, A.; Bolaños Arrieta, M.; Ortiz García, L.; Vega Madrigal, R.; Brenes Rosales, T. Calidad de vida de los pacientes con enfermedad arterial coronaria incluidos en el programa de rehabilitación cardiaca del hospital San Vicente de Paúl en Heredia. *Rev. Costarric. De Cardiol.* **2008**, *10*, 9–13.
20. Rojas-Reyes, J.; Flórez-Flórez, M.L. Adherencia al tratamiento y calidad de vida en personas con infarto agudo de miocardio. *Aquichan* **2016**, *16*, 339. [CrossRef]

21. Trullàs, J.C.; Pérez-Calvo, J.I.; Conde-Martel, A.; Llàcer Iborra, P.; Suárez Pedreira, I.; Ormaechea, G.; Soler Rangel, L.; González Franco, A.; Cepeda, J.M.; Montero-Pérez-Barquero, M. Epidemiología de la insuficiencia cardiaca con fracción de eyección preservada: Resultados del Registro RICA. *Med. Clín.* **2021**, *157*, 1–9. [CrossRef]
22. Mayoral, A.P.; Ibarz, E.; Gracia, L.; Mateo, J.; Herrera, A. The use of Barthel index for the assessment of the functional recovery after osteoporotic hip fracture: One year follow-up. *PLoS ONE* **2019**, *14*, e0212000. [CrossRef]
23. Delor, R.E.R.; Castillo, G.F.J. Pronóstico vital y secuelas neurológicas en los pacientes con accidente cerebrovascular del Hospital Nacional, Paraguay. *Rev. Cuba. De Med.* **2016**, *55*, 181–189.
24. Shruthi, D.R.; Kumar, S.S.; Desai, N.; Raman, R.; Sathyanarayana Rao, T.S. Psychiatric comorbidities in acute coronary syndromes: Six-month follow-up study. *Indian J. Psychiatry* **2018**, *60*, 60–64. [CrossRef]
25. De Hert, M.; Detraux, J.; Vancampfort, D. The intriguing relationship between coronary heart disease and mental disorders. *Dialogues Clin. Neurosci.* **2018**, *20*, 31–40. [CrossRef] [PubMed]
26. Sreenivasan, J.; Khan, M.S.; Khan, S.U.; Hooda, U.; Aronow, W.S.; Panza, J.A.; Levine, G.N.; Commodore-Mensah, Y.; Blumenthal, R.S.; Michos, E.D. Mental health disorders among patients with acute myocardial infarction in the United States. *Am. J. Prev. Cardiol.* **2021**, *5*, 100133. [CrossRef] [PubMed]
27. Doyle, F.; McGee, H.; Conroy, R.; Conradi, H.J.; Meijer, A.; Steeds, R.; Sato, H.; Stewart, D.E.; Parakh, K.; Carney, R.; et al. Systematic Review and Individual Patient Data Meta-Analysis of Sex Differences in Depression and Prognosis in Persons with Myocardial Infarction: A MINDMAPS Study. *Psychosom. Med.* **2015**, *77*, 419–428. [CrossRef] [PubMed]
28. Martina, M.; Ara, M.A.; Gutiérrez, C.; Nolberto, V.; Piscoya, J. Depresión y factores asociados en la población peruana adulta mayor según la ENDES 2014–2015. *An. De La Fac. De Med.* **2017**, *78*, 393–397. [CrossRef]
29. Salazar, T.; López, C.; Río, B.; Barreiro, L. Relación de la depresión, ansiedad y calidad de vida en pacientes hospitalizados con insuficiencia cardiaca. *Psicol. Y Salud* **2014**, *24*, 25–34. [CrossRef]
30. Torres, M. Prevalencia, infradiagnóstico y calidad de vida en pacientes con depresión tras síndrome coronario agudo. *Rev. Digit. De Med. Psicosomática Y Psicoter.* **2015**, *4*, 1–11.
31. Murphy, B.; Le Grande, M.; Alvarenga, M.; Worcester, M.; Jackson, A. Anxiety and Depression After a Cardiac Event: Prevalence and Predictors. *Front. Psychol.* **2020**, *10*, 3010. [CrossRef]
32. Esquivel, C.; Castillo, J.; Hernández, F.; Espino, F.; Martínez-Mendoza, J.; Galindo, B.e.a. Ansiedad y Depresión en Síndrome Coronario Agudo. *Med. Rev. De Med. Crítica* **2009**, *6*, 18–23. [CrossRef]
33. Tellería, C. Evaluación de los niveles de depresión, ansiedad y factores psicosociales en Pacientes con Diabetes Gestacional Previa: Ciudad Hospitalaria. *Comunidad Y Salud* **2014**, *12*, 62–72.
34. Gambaro, A.; Ho Hee, H.; Kaier Thomas, E.; Pires-Morais, G.; Patel Jignesh, A.; Ansari Ramandi Mohammad, M. Management of Acute Coronary Syndrome in the COVID-19 Era. *JACC Case Rep.* **2020**, *2*, 1429–1432. [CrossRef]
35. Soldevila-Domenech, N.; Forcano, L.; Boronat, A.; Lorenzo, T.; Piera, I.; Puig-Pijoan, A.; Mateus, J.; González de Echevarri Gómez, J.M.; Knezevic, I.; Soteras, A.; et al. Effects of COVID-19 Home Confinement on Mental Health in Individuals with Increased Risk of Alzheimer's Disease. *J. Alzheimer's Dis.* **2021**, *79*, 1015–1021. [CrossRef] [PubMed]
36. Jané-Llopis, E.; Anderson, P.; Segura, L.; Zabaleta, E.; Muñoz, R.; Ruiz, G.; Rehm, J.; Cabezas, C.; Colom, J. Mental ill-health during COVID-19 confinement. *BMC Psychiatry* **2021**, *21*, 194. [CrossRef] [PubMed]
37. Hawes, M.T.; Szenczy, A.K.; Klein, D.N.; Hajcak, G.; Nelson, B.D. Increases in depression and anxiety symptoms in adolescents and young adults during the COVID-19 pandemic. *Psychol. Med.* **2021**, 1–9. [CrossRef]
38. Dassieu, L.; Pagé, M.G.; Lacasse, A.; Laflamme, M.; Perron, V.; Janelle-Montcalm, A.; Hudspith, M.; Moor, G.; Sutton, K.; Thompson, J.M.; et al. Chronic pain experience and health inequities during the COVID-19 pandemic in Canada: Qualitative findings from the chronic pain & COVID-19 pan-Canadian study. *Int. J. Equity Health* **2021**, *20*, 147. [CrossRef]
39. Dias, C.; Mateus, P.; Santos, L.; Mateus, C.; Sampaio, F.; Adão, L.e.a. Acute coronary syndrome and predictors of quality of life. *Rev. Port. De Cardiol. Orgão Of. Da Soc. Port. De Cardiol.* **2005**, *24*, 819–831.
40. Soto, M.; Failde, I. La calidad de vida relacionada con la salud como medida de resultados en pacientes con cardiopatía isquémica. *Rev. De La Soc. Española Del Dolor* **2004**, *11*, 53–62.
41. Lee, B.J.; Go, J.Y.; Kim, A.R.; Chun, S.M.; Park, M.; Yang, D.H.; Park, H.S.; Jung, T.-D. Quality of Life and Physical Ability Changes After Hospital-Based Cardiac Rehabilitation in Patients With Myocardial Infarction. *Ann. Rehabil. Med.* **2017**, *41*, 121–128. [CrossRef] [PubMed]
42. Stamp, K.D.; Dunbar, S.B.; Clark, P.C.; Reilly, C.M.; Gary, R.A.; Higgins, M.; Kaslow, N. Family Context Influences Psychological Outcomes of Depressive Symptoms and Emotional Quality of Life in Patients With Heart Failure. *J. Cardiovasc. Nurs.* **2014**, *29*, 517–527. [CrossRef]
43. Gan, Z.; Li, Y.; Xie, D.; Shao, C.; Yang, F.; Shen, Y.; Zhang, N.; Zhang, G.; Tian, T.; Yin, A.; et al. The impact of educational status on the clinical features of major depressive disorder among Chinese women. *J. Affect. Disord.* **2012**, *136*, 988–992. [CrossRef]
44. ten Kate, J.; de Koster, W.; van der Waal, J. Why are Depressive Symptoms More Prevalent Among The Less Educated? The Relevance of Low Cultural Capital and Cultural Entitlement. *Sociol. Spectr.* **2017**, *37*, 63–76. [CrossRef]
45. Lau, D.; McAlister, F.A. Implications of the COVID-19 Pandemic for Cardiovascular Disease and Risk-Factor Management. *Can. J. Cardiol.* **2021**, *37*, 722–732. [CrossRef] [PubMed]

46. Gimeno, C.; Dorado, M.L.; Roncero, C.; Szerman, N.; Vega, P.; Balanzá-Martínez, V.; Alvarez, F.J. Treatment of Comorbid Alcohol Dependence and Anxiety Disorder: Review of the Scientific Evidence and Recommendations for Treatment. *Front. Psychiatry* **2017**, *8*, 1–11. [CrossRef] [PubMed]
47. Smith, J.P.; Randall, C.L. Anxiety and alcohol use disorders: Comorbidity and treatment considerations. *Alcohol Res. Curr. Rev.* **2012**, *34*, 414–431.
48. Acuña, V.R.; Hernández, C.M.R.; Guzmán, M.R.A.; Hernández, L.C.; Contreras, E.Z.; Jorge, R.G. Relación del consumo de alcohol y trastornos mentales en habitantes de una población rural. *Investig. Y Cienc.* **2016**, *24*, 71–77.
49. Huang, C.J.; Hsieh, H.M.; Tu, H.P.; Jiang, H.J.; Wang, P.W.; Lin, C.H. Generalized anxiety disorder in type 2 diabetes mellitus: Prevalence and clinical characteristics. *Braz. J. Psychiatry* **2020**, *42*, 621–629. [CrossRef] [PubMed]
50. Tajfard, M.; Ghayour Mobarhan, M.; Rahimi, H.R.; Mouhebati, M.; Esmaeily, H.; Ferns, G.A.; Latiff, L.A.; Taghipour, A.; Mokhber, N.; Abdul-Aziz, A.F. Anxiety, depression, coronary artery disease and diabetes mellitus; an association study in ghaem hospital, iran. *Iran. Red Crescent Med. J.* **2014**, *16*, e14589. [CrossRef]
51. Chazova, T.E.; Voznesenskaia, T.G.; Golitsyna, T. Anxiety-depressive disorders in patients with type 2 diabetes mellitus complicated with acute coronary syndrome. *Kardiologiia* **2007**, *47*, 10–14.
52. Cheung, B.M.; Au, T.; Chan, S.; Lam, C.; Lau, S.; Lee, R.; Lee, S.; Lo, W.; Sin, E.; Tang, M.; et al. The relationship between hypertension and anxiety or depression in Hong Kong Chinese. *Exp. Clin. Cardiol.* **2005**, *10*, 21–24.
53. Wei, T.-M.; Wang, L. Anxiety Symptoms in Patients with Hypertension: A Community-Based Study. *Int. J. Psychiatry Med.* **2006**, *36*, 315–322. [CrossRef]
54. Hildrum, B.; Romild, U.; Holmen, J. Anxiety and depression lowers blood pressure: 22-year follow-up of the population based HUNT study, Norway. *BMC Public Health* **2011**, *11*, 601. [CrossRef]
55. Mwinyi, J.; Pisanu, C.; Castelao, E.; Stringhini, S.; Preisig, M.; Schiöth, H.B. Anxiety Disorders are Associated with Low Socioeconomic Status in Women but Not in Men. *Women's Health Issues* **2017**, *27*, 302–307. [CrossRef] [PubMed]
56. Kim, Y.-M.; Cho, S.-i. Socioeconomic status, work-life conflict, and mental health. *Am. J. Ind. Med.* **2020**, *63*, 703–712. [CrossRef] [PubMed]