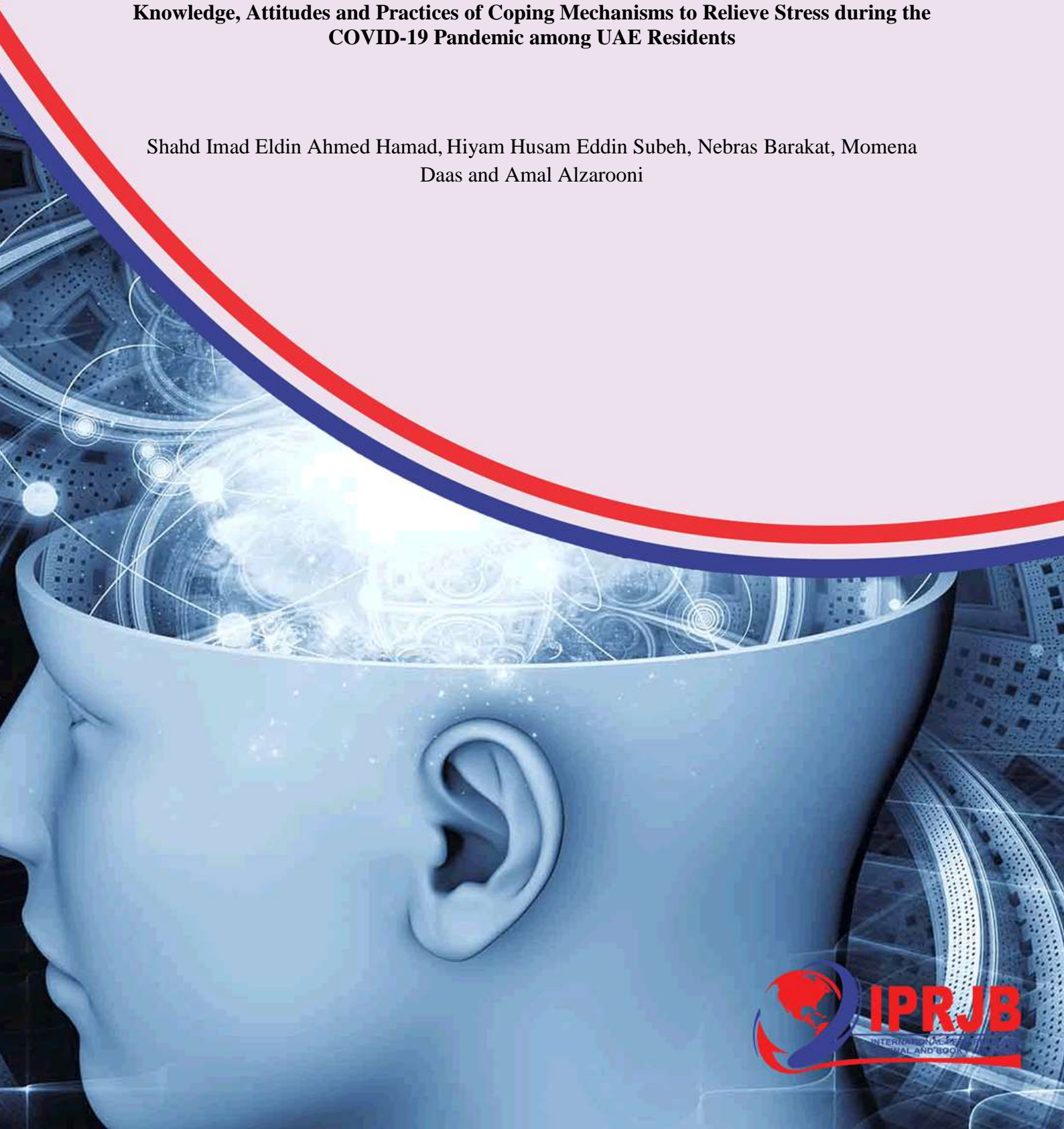


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**Knowledge, Attitudes and Practices of Coping Mechanisms to Relieve Stress during the  
COVID-19 Pandemic among UAE Residents**

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### Knowledge, Attitudes and Practices of Coping Mechanisms to Relieve Stress during the COVID-19 Pandemic among UAE Residents

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#### Abstract

**Purpose:** Recent research studies conducted in the United Arab Emirates (UAE) showed that the Coronavirus disease 2019 (COVID-19) pandemic has had a significant detrimental psychological impact on the UAE population. Based on these outcomes, it is essential to investigate the knowledge, attitudes, and practices of the UAE population towards coping mechanisms. The purpose of this study is to investigate the knowledge, attitudes, and practices of the UAE residents towards coping mechanisms used to relieve stress during COVID-19 pandemic.

**Methodology:** A cross-sectional study was conducted among UAE residents above the age of 18. A total of 292 participants were enrolled by volunteer sampling and data was collected using a self-administered questionnaire. The questionnaire included questions about demographics, prevalence, causes of stress, knowledge, attitudes, and practices of coping mechanisms. Practices were assessed using the Brief-COPE scale and the data collected was analyzed using the SPSS-26 program.

**Findings:** Out of 292 participants, 213 (73%) were between 18-24 years old, 207 (71%) were females, 193 (66%) were Arabs, 222 (76%) were single, 199 (68%) were students, 169 (58%) had a bachelor's degree or above, and 190 (65%) had an income ≤ 10,000 AED. 210 (71.9%) of the participants experienced varying levels of stress and the most common causes of stress were online learning and the health of family members. The level of knowledge about coping mechanisms was poor in 150 (51.4%) of participants. In the case of attitudes towards coping mechanisms, 173 (59.2%) and 183 (62.7%) of participants agreed that adaptive and maladaptive coping mechanisms were beneficial in relieving stress, respectively. The mean practices score for adaptive and maladaptive coping was 43.43/64 and 24.58/48, respectively.

**Unique Contribution to Theory, Practice and Policy:** Stress management is vital for the overall well-being of the community. Awareness programs should be established to improve the perception and implementation of adaptive coping mechanisms among UAE population. Overall, the study emphasizes the urgent need for mental health awareness programs in the UAE to enhance adaptive coping mechanisms, reduce reliance on maladaptive strategies, and improve community resilience in future crises.

**Keywords:** Coping Mechanisms, Adaptive Coping, Maladaptive Coping, Covid-19, Stress, U.A.E., Health Behavior

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## INTRODUCTION

Stress is the body's natural response to demands or threats, triggering the "fight-or-flight" reaction in a rapid and automatic process. While moderate stress can be beneficial, providing energy and focus; chronic or overwhelming stress can have detrimental effects on physical health, mood, and overall well-being [1]. Learning to recognize and manage stress is crucial for maintaining a balanced and healthy lifestyle. Coping refers to the strategies individuals use to manage and adapt to challenging or stressful situations. These strategies may encompass a combination of behaviors, thoughts, and emotions aimed at alleviating stress and promoting well-being. Effective coping mechanisms contribute to resilience and an ability to navigate life's ups and downs with greater ease [2].

A major, international stressor in 2019 was SARS-CoV-2, the virus causing coronavirus or COVID-19. Coronavirus spread rapidly with a high infectious potential, killing over a million individuals in the United States alone [3]. "Globally, as of 8 November 2023, there have been 771,820,937 confirmed cases of COVID-19, including 6,978,175 deaths, reported to WHO" [4]. The disease spectrum is broad, ranging from asymptomatic individuals with mild infections exhibiting fever, cough, fatigue, and headaches to individuals with severe infections suffering from pneumonia, severe acute respiratory distress syndrome (SARS), and cardiac issues resulting in multi-organ failure and death [5].

Naturally, the virus necessitated a global pandemic, to impose confinement measures in an effort to slow the disease's spread, invoking stress in populations across the globe due to its high death rate. These actions have affected people's everyday lives and psychological well-being [6].

When compared to surveys conducted prior to the pandemic, the number of American individuals reporting symptoms of stress, anxiety, sadness, and sleeplessness has significantly increased, with some reporting increased consumption of drugs or alcohol in the hopes that it will help them deal with their worries related to the pandemic. Using these substances can worsen anxiety and depression [7].

Talking with friends and family, exercising outdoors, using online programs or videos, and participating in more family activities were all linked to reduced rates of moderate- to severe-level depression symptoms and moderate- to severe-level anxiety symptoms [8].

Lazarus and Folkman's Transactional Model of Stress and Coping (1984) explains how individuals assess and respond to stress through coping mechanisms. The model differentiates between problem-focused coping, which addresses stressors directly, and emotion-focused coping, which manages emotional responses. This model explains stress as a dynamic process between an individual and their environment, where coping mechanisms play a crucial role in managing stressors [9].

A study in Spain found that religion encourages healthier lifestyle choices since it is linked to reduced drug and alcohol consumption, more exercise, and improved eating habits. In the past, religious individuals exhibited prosocial behaviors that resulted in providing human support during challenging circumstances like the pandemic [10]. Another cross-sectional study of Australian pharmacists in practice and interns showed a link between work-related stress and the coping strategies pharmacists utilized during the COVID-19 pandemic. The study's findings highlight the value of exercise and quality time with pets in lowering stress levels related to the

workplace. This study also emphasized the necessity for interventional research that addresses helpful coping mechanisms to lower pharmacists' levels of stress related to their jobs [11].

The COVID-19 pandemic significantly impacted the psychosocial well-being of the UAE population. A cross-sectional online survey conducted in November 2020 among 417 participants revealed high levels of psychological distress (55%), fear of COVID-19 (23.3%), and low resilient coping (36.2%). Key factors associated with psychological distress included increased smoking, increased alcohol consumption, higher fear of COVID-19, being female, and having a pre-existing mental health condition. Similarly, low resilient coping was linked to smoking and high fear levels. Work-related mental health impacts (37.4%) and employment status changes (32.4%) were additional stressors [12].

There is a paucity in literature regarding coping mechanisms adopted by UAE citizens in light of the pandemic that have covered the many helpful coping strategies used during the COVID-19 pandemic. The data from this study will be helpful to scholars who are attempting to compile larger datasets about the coping strategies that worked during the COVID-19 pandemic.

The COVID-19 pandemic has significantly impacted mental health worldwide, with studies highlighting its detrimental psychological effects on the population. Despite the critical role of coping mechanisms in mitigating stress, there is limited research on the knowledge, attitudes, and practices of UAE residents regarding these strategies. Given the importance of promoting mental well-being, there is an urgent need to assess and address gaps in awareness and implementation of coping mechanisms among the UAE population. This study aims to explore these aspects to inform targeted mental health awareness programs and enhance resilience during future crises.

The main objectives of this study include recognizing variables that affect coping mechanisms' knowledge, attitude, and practices. Furthermore, our study will aim to determine the perceived stress levels during the pandemic of COVID-19 and identify the causes of stress during the pandemic of COVID-19. The purpose of this study is to assess if there is a need to raise awareness and implement initiatives that encourage the use of stress-management using adaptive coping mechanisms.

## **METHODOLOGY**

### **Study Design and Population**

A cross-sectional study was conducted from February to April 2021, during the COVID-19 pandemic, using a self-administered questionnaire. This study included participants from the general population who are residing in the UAE. The study sample involved 292 individuals aged 18 and above, who are English or Arabic speakers. We excluded individuals with a history of psychological illnesses.

### **Data Collection**

This study was conducted via an online questionnaire due to the restrictions of the COVID-19 pandemic. It was distributed across online platforms including Email, Facebook, Instagram, and WhatsApp. The questionnaire consisted of a total of 48 questions. It was divided into four different sections: demographics, knowledge, attitudes, and practices. The first three sections were developed by the researchers, while the last section about practices was assessed using the Brief-COPE scale [13,14].

The demographics section included questions about age, gender, Emirate of residence, nationality, marital status, occupation, level of education, monthly income, history of psychological illness, and stress levels during the COVID-19 pandemic and its contributing factors. The second and third sections involved questions to assess the knowledge and attitudes of the participants towards coping mechanisms and their types. A knowledge score was calculated based on the answers of four questions. The score ranged from 0 (minimum) to 4 (maximum). The scores were grouped into good knowledge (scores 3-4) and poor knowledge (scores 0-2). The attitudes towards adaptive coping were assessed using two adaptive coping mechanisms, which are planning (phrased as putting a plan to solve the actual problem) and using emotional and instrumental support (phrased as seeking advice or comfort from family or friends). Attitudes towards maladaptive coping were assessed using two maladaptive coping mechanisms, which are venting (phrased as an expression of feelings) and self-distraction. The participants rated the questions on a 5-point Likert scale, ranging from 1 - "Not at all beneficial" to 5 - "Extremely beneficial". The overall attitude for adaptive coping was calculated using the sum of the score of the two adaptive coping mechanisms. The total score ranged from 2 (minimum) to 10 (maximum). We grouped the scores into extremely beneficial (scores 8-10), moderately beneficial (scores 5-7), and slightly beneficial (scores 2-4). The overall attitude for maladaptive coping was calculated similarly.

The last section involved assessing the practices of coping mechanisms by the participants using the Brief-COPE scale [13,14]. The Brief COPE scale assesses the practice of 14 coping subscales; each subscale is assessed using 2 questions resulting in a total of 28 questions. The participants rated the questions on a 4-point Likert scale, ranging from 1 - "I haven't been doing this at all" to 4 - "I've been doing this a lot". Total scores on each of the subscales are calculated by summing the appropriate questions for each subscale. The total scores on each subscale ranged from 2 (minimum) to 8 (maximum). Several studies have collapsed the coping subscales into various categorizations of coping mechanisms (e.g.: maladaptive vs. adaptive coping mechanisms); however, the test developers do not have a standard rule of how to generate these categorizations and instead leave this to the user's discretion. We grouped the subscales under two broad categories, where we summed the scores of the subscales in each category. The broad categories are: Adaptive coping and Maladaptive coping. Adaptive coping included 8 subscales: active coping, planning, instrumental support, emotional support, positive reframing, acceptance, religion, and humor. The total score ranged from 16 (minimum) to 64 (maximum). Maladaptive coping included 6 subscales: venting, denial, substance use, behavioral disengagement, self-distraction, and self-blame. The total score ranged from 12 (minimum) to 48 (maximum) [15].

The questionnaire was pilot tested on 10 individuals from the community and changes were made accordingly. The questionnaire was created in English and Arabic languages.

### **Data Analysis**

Statistical analysis was conducted using SPSS version 26. Descriptive statistics (percentages and frequencies) were used for univariate analysis. Bivariate analysis was conducted to study the relationship between variables. Inferential statistics tests, including Chi-square, t-test, and ANOVA, were used as appropriate to the type of variables involved. A p-value of < 0.05 was considered statistically significant.

## Ethical Considerations

The questionnaire included an information sheet that participants will have to read before proceeding to answer any of the questions. Solving the questionnaire is equivalent to giving consent to participate in the study. The questionnaire ensured the privacy and anonymity of the data and of the participants. The information sheet included brief information that will give the participants a general overview of the research. Participants were free to withdraw from participation at any time during data collection, but not after submission due to anonymity. Questionnaires were stored on a Google Drive that can be only accessed by the research team. Our study will not cause any physical, psychological, or social harm to any of the participants and doesn't require them to release any information of sensitive nature. Participants did not receive any payments or benefits for participating in the questionnaire.

## RESULTS

### Demographics

A total of 292 questionnaires were included in the analysis. The majority of the participants were under 25 years old ( $n=213$ , 73%) and females ( $n=207$ , 71%), while 79 (27%) were 25 years or older and 85 (29%) were males. More than half of the participants were Arab ( $n=193$ , 66%), 61 (21%) were UAE locals, and 35 (12%) were Non-Arab. The majority of the participants were single ( $n=222$ , 76%), while 70 (24%) were married. Most of the participants were students ( $n=199$ , 68%), while 61 (21%) were employed and 32 (11%) were unemployed. The highest degree obtained was a university degree for 169 (58%) participants and a high school degree for 123 (42%) participants. More than half of the participants had a monthly income of 10,000 AED or less ( $n=190$ , 65%), while 102 (35%) had an income of more than 10,000. (Table 1)

**Table 1: Demographic Characteristics of the Participants**

Demographic Factor	Category	Frequency	Percentage (%)
Age	Under 25	213	73
	25 and above	79	27
Gender	Female	207	71
	Male	85	29
Nationality	Arab	193	66
	Non-Arab	35	12
	Local	61	21
	Preferred not to say	3	1
Marital Status	Single	222	76
	Married	70	24
Occupation	Student	199	68
	Employed	61	21
	Unemployed	32	11
Degree	High School	123	42
	University	169	58
Income	≤ 10000	190	65
	> 10000	102	35

### Prevalence and Causes of Increased Stress Levels

Most of the participants reported some degree of increased stress levels during the COVID-19 quarantine period; 33 (11.3%) reported always, 68 (23.3%) reported usually, 109 (37.3%) reported sometimes, and 49 (16.8%) reported rarely (Figure 1).

The most reported cause of increased level of stress was online learning (n=177, 60.6%), followed by the health of family members (n=157, 53.8%), unemployment and financial problems (n=89, 30.5%), contracting COVID-19 (n=73, 25%), and quarantine (n=13, 4.5%) (Figure 2).

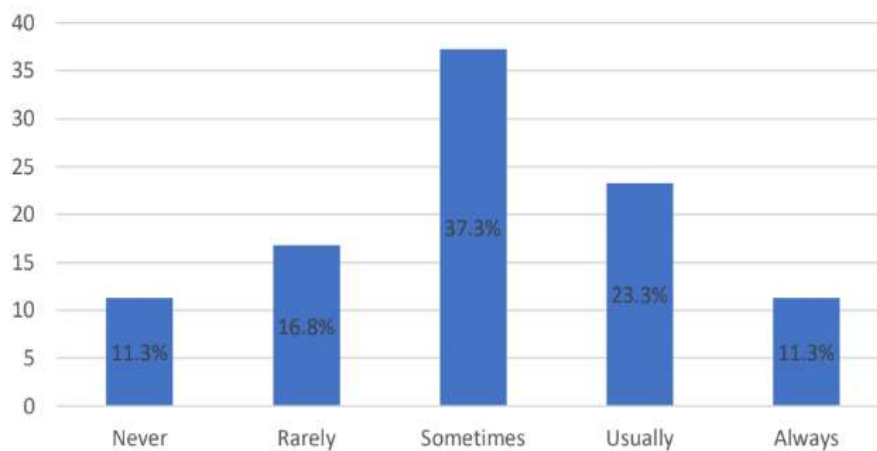


Figure 1: The Prevalence of Increased Stress Levels during the COVID-19 Quarantine Period

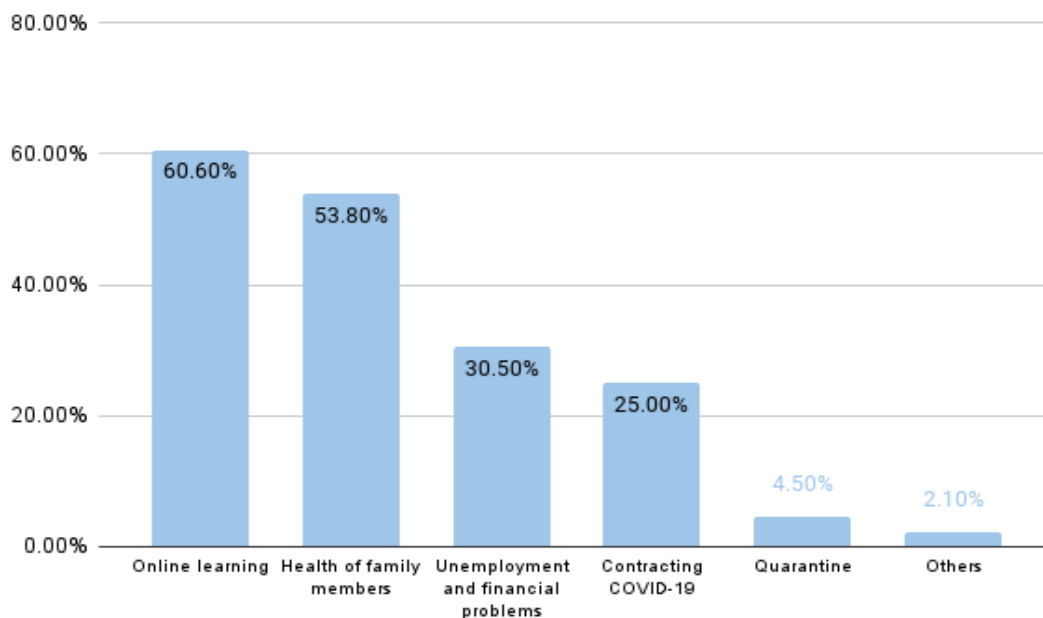


Figure 2: The Causes of Increased Stress Levels during the COVID-19 Quarantine Period

### **Knowledge about Coping Mechanisms**

Around half of the participants reported hearing about coping mechanisms before (n= 169, 58%), while 58 (20%) reported not and 64 (22%) were not sure. Most of the participants correctly described coping mechanisms as thoughts and behaviors done to manage stressful situations (n= 237, 81.2%), while only 6 (2.1%) participants believed they were only used by patients with psychological illnesses. Less than half of the participants correctly reported denial as a type of avoidant coping mechanism (n=121, 41.4%). Around half of the participants correctly reported planning as a type of approach coping mechanism (n=141, 48.3%). Overall, 142 (48.6%) participants had good knowledge about coping mechanisms while 150 (51.4%) had poor knowledge. (Table 2)

There was a significant association between good knowledge about coping mechanisms and age; those who were under 25 years old had better knowledge scores compared to older participants (P= 0.000). Good knowledge was also associated with marital status; single participants had higher knowledge scores compared to married participants (P=0.000). There was a significant association between good knowledge and occupation; students scored higher in knowledge compared to employed and unemployed participants (P= 0.002). Good knowledge was also associated with monthly income; those with higher monthly household incomes had higher knowledge scores compared to those with lower incomes (P=0.008). There was no significant association between knowledge and gender, nationality, highest degree obtained, and stress levels. (Table 3).



**Table 2: Knowledge of Coping Mechanisms to Relieve Stress during the COVID-19 Pandemic among UAE Residents**

Questions	Answers	Frequency	Percentage
Have you heard of coping mechanisms	Yes	169	58%
	No	58	20%
	Not sure	64	22%
Which of the following best describes coping mechanism	I don't know	49	16.8%
	They are only used by patients with psychological illnesses.	6	2.1%
	Thoughts and behaviors done to manage stressful situations*	237	81.2%
Which of the following is an example of avoidant coping mechanisms	Acceptance	71	24.3%
	Planning	25	8.6%
	Denial*	121	41.4%
	Emotional support	22	7.5%
	I don't know	53	18.2%
Which of the following is an example of approach coping mechanisms	Planning*	141	48.3%
	Denial	3	1%
	Venting	35	12%
	Self-distraction	46	15.8%
	I don't know	67	22.9%
Knowledge score	Good knowledge	142	48.6%
	Poor knowledge	150	51.4%

**Table 3: Association between Predictor Variables and Level of Knowledge About Coping Mechanisms**

	Good knowledge frequency	Good knowledge (%)	Poor knowledge frequency	Poor knowledge (%)	p-value
<b>Age</b>					
<25	121	56.6%	92	43.4%	0.000
=>25	22	27.5%	57	72.5%	
<b>Gender</b>					
Male	37	44.0%	48	56.0%	0.319
Female	105	50.5%	102	49.5%	
<b>Nationality</b>					
Arabs	95	49.2%	98	50.8%	0.102
Non-Arabs	22	62.9%	13	37.1%	
Locals	25	40.3%	36	59.7%	
<b>Marital status</b>					
Single	125	56.1%	97	43.9%	0.000
Married	17	24.6%	53	75.4%	
<b>Occupation</b>					
Student	111	55.8%	88	44.2%	0.002
Employed	22	35.5%	39	64.5%	
Unemployed	10	30.3%	22	69.7%	
<b>Degree</b>					
School	66	54.0%	57	46.0%	0.113
University	75	44.6%	94	55.4%	
<b>Income</b>					
=<10,000 dhs	82	42.9%	108	57.1%	0.008
>10,000 dhs	60	59.2%	42	40.8%	

**Attitudes about Coping Mechanisms**

The majority of respondents (n= 256, 87.6%) believe that coping mechanisms are beneficial in relieving stress during the pandemic. Specifically, 107 (36.6%) consider them "true" and 83 (28.4%) "very true". Different strategies were evaluated for their effectiveness in stress relief. Planning was seen as "very beneficial" by 116 (39.7%), and "extremely beneficial" by 94 (32.2%) respondents. Emotional support was also highly rated, with 104 (35.6%) rating it "very

beneficial" and 79 (27.1%) as "extremely beneficial". Expressing feelings and self-distraction had similar ratings, with a majority finding them either "very beneficial" or "extremely beneficial." The adaptive coping score was predominantly rated as "extremely beneficial" (n=173, 59.2%), while the maladaptive coping score was rated similarly (n=183, 62.7%). (Table 4)

In the analysis of factors influencing attitudes toward adaptive and maladaptive coping mechanisms, variables such as age, gender, nationality, marital status, and income were examined. For adaptive coping mechanisms, there were no significant differences based on these factors, as p-values indicated non-significant associations (e.g., age, gender, occupation, and marital status had p-values greater than 0.05). (Table 5)

Maladaptive coping mechanisms showed a similar trend, with no statistically significant associations. However, it is noteworthy that females, individuals over 25, and those with higher incomes tended to rate both adaptive and maladaptive mechanisms more favorably. (Table 6).

**Table 4: Attitudes of Coping Mechanisms to Relieve Stress during the COVID-19 Pandemic among UAE Residents**

Questions	Answers	Frequency	Percentage
Coping mechanisms are beneficial to relieve stress during the COVID-19 pandemic in your opinion	Very untrue	2	0.7%
	Untrue	0	0%
	Somewhat untrue	3	1%
	Neutral	31	10.6%
	Somewhat true	66	22.6%
	True	107	36.6%
	Very true	83	28.4%
Which of the following coping mechanisms is beneficial in relieving stress in your opinion (put a plan to solve it)	Not at all beneficial	2	0.7%
	Slightly beneficial	15	5.1%
	Somewhat beneficial	65	22.3%
	Very beneficial	116	39.7%
	Extremely beneficial	94	32.2%
Which of the following coping mechanisms is beneficial in relieving stress in your opinion (emotional support)	Not at all beneficial	6	2.1%
	Slightly beneficial	22	7.5%
	Somewhat beneficial	81	27.7%
	Very beneficial	104	35.6%
	Extremely beneficial	79	27.1%
Which of the following coping mechanisms is beneficial in relieving stress in your opinion (expressing of feelings)	Not at all beneficial	6	2.1%
	Slightly beneficial	20	6.8%
	Somewhat beneficial	53	18.2%
	Very beneficial	109	37.3%
	Extremely beneficial	104	35.6%
Which of the following coping mechanisms is beneficial in relieving stress in your opinion (self-distraction)	Not at all beneficial	8	2.7%
	Slightly beneficial	21	7.2%
	Somewhat beneficial	66	22.6%
	Very beneficial	90	30.8%
	Extremely beneficial	107	36.6%
Adaptive coping score	Slightly beneficial	9	3.1%
	Moderately beneficial	110	37.7%
	Extremely beneficial	173	59.2%
Maladaptive coping score	Slightly beneficial	10	3.4%
	Moderately beneficial	99	33.9%
	Extremely beneficial	183	62.7%

**Table 5: Association between Predictor Variables and Attitude toward Adaptive Coping Mechanisms**

	Extremely beneficial frequency	Extremely beneficial (%)	Moderately beneficial frequency	Moderately beneficial (%)	Slightly beneficial frequency	Slightly beneficial (%)	p-value
<b>Age</b>							
<25	124	58.0%	82	38.7%	7	3.3%	0.768
=>25	49	62.5%	28	35.0%	2	2.5%	
<b>Gender</b>							
Male	49	57.1%	35	41.7%	1	1.2%	0.376
Female	124	60.1%	75	36.1%	8	3.8%	
<b>Nationality</b>							
Arabs	110	57.0%	75	38.9%	8	4.1%	0.392
Non-arabs	25	71.4%	10	28.6%	0	0.0%	
Locals	36	59.7%	24	38.7%	1	1.6%	
<b>Marital status</b>							
Single	131	59.2%	84	37.7%	7	3.1%	0.995
Married	42	59.4%	26	37.7%	2	2.9%	
<b>Occupation</b>							
Student	116	58.4%	76	38.1%	7	3.6%	0.834
Employed	39	64.5%	21	33.9%	1	1.6%	
Unemployed	17	54.5%	14	42.4%	1	3.0%	
<b>Degree</b>							
School	73	59.7%	48	38.7%	2	1.6%	0.454
University	100	58.9%	62	36.9%	7	4.2%	
<b>Income</b>							
=<10,000 dhs	111	58.2%	72	38.1%	7	3.7%	0.672
>10,000 dhs	62	61.2%	38	36.9%	2	1.9%	

**Table 6: Association between Predictor Variables and Attitude toward Maladaptive Coping Mechanisms**

	Extremely beneficial frequency	Extremely beneficial (%)	Moderately beneficial frequency	Moderately beneficial (%)	Slightly beneficial frequency	Slightly beneficial (%)	p-value
<b>Age</b>							
<25	131	61.3%	75	35.4%	7	3.3%	0.686
=>25	52	66.3%	24	30.0%	3	3.8%	
<b>Gender</b>							
Male	45	52.4%	37	44.0%	3	3.6%	0.061
Female	138	66.8%	62	29.8%	7	3.4%	
<b>Nationality</b>							
Arabs	119	61.7%	67	34.7%	7	3.6%	0.666
Non-arabs	25	71.4%	10	28.6%	0	0.0%	
Locals	37	61.3%	21	33.9%	3	4.8%	
<b>Marital status</b>							
Single	135	61.0%	80	35.9%	7	3.1%	0.420
Married	48	68.1%	19	27.5%	3	4.3%	
<b>Occupation</b>							
Student	123	61.9%	69	34.5%	7	3.6%	0.991
Employed	38	62.9%	21	33.9%	2	3.2%	
Unemployed	21	66.7%	10	30.3%	1	3.0%	
<b>Degree</b>							
School	78	63.7%	41	33.1%	4	3.2%	0.948
University	105	61.9%	58	34.5%	6	3.6%	
<b>Income</b>							
=<10,000 dhs	114	59.8%	68	36.0%	8	4.2%	0.299
>10,000 dhs	69	68.0%	31	30.1%	2	1.9%	

**Practices of Coping Mechanisms**

For adaptive coping mechanisms, the most effective strategies included acceptance (mean score: 6.31), religion (6.13), and positive reframing (5.71). Other strategies such as active coping, planning, and emotional support were also highly rated, with mean scores around 5.5. Humor, though a common coping mechanism, had a lower mean score (4.59). (Table 7)

For maladaptive coping mechanisms, self-distraction had the highest mean score (5.93), suggesting it was widely used but in a less constructive approach. Other maladaptive practices, such as venting (4.54), denial (3.44), and substance use (2.49), were rated lower, indicating they were less commonly utilized or viewed less positively. (Table 8)

In the analysis of adaptive coping practices, demographic factors like age, gender, nationality, marital status, and occupation showed minimal significant differences in coping practices. The only factor that had a notable impact was the level of knowledge: those with "good knowledge" of stress management scored higher (mean 44.71) than those with "poor knowledge" (mean 42.21). Additionally, those who viewed adaptive coping mechanisms as "extremely beneficial" had higher practice scores compared to those who rated them as "slightly beneficial". (Table 9)

In the case of maladaptive coping practices, gender, and stress levels were the most influential factors. Females and those who reported being stressed had significantly higher maladaptive coping scores than their counterparts. Age, marital status, and stress levels were also significant predictors, with older individuals, married people, and the non-stressed showing lower tendencies toward maladaptive coping mechanisms. However, knowledge levels and income did not show significant effects on maladaptive practices. (Table 10)

**Table 7: Practices of Adaptive Coping Mechanisms to Relieve Stress during the COVID-19 Pandemic among UAE Residents**

Subscales	N	Mean	Median	Mode	Std. Deviation	Range	Minimum	maximum
Active coping score	292	5.55	6.00	6	1.474	6	2	8
Planning score	292	5.56	6.00	6	1.481	6	2	8
Instrumental support score	292	4.84	5.00	6	1.746	6	2	8
Emotional support score	292	4.75	5.00	6	1.704	6	2	8
Positive reframing score	292	5.71	6.00	6	1.667	6	2	8
Acceptance score	292	6.31	6.00	6	1.395	6	2	8
Religion score	291	6.13	6.00	8	1.686	6	2	8
Humor score	292	4.59	4.00	2	1.956	6	2	8

**Table 8: Practices of Maladaptive Coping Mechanisms to Relieve Stress during the COVID-19 Pandemic among UAE Residents**

Subscales	N	Mean	Median	Mode	Std. Deviation	Range	Minimum	maximum
Venting score	292	4.54	4.00	4	1.574	6	2	8
Denial score	292	3.44	3.00	2	1.648	6	2	8
Substance use score	292	2.49	2.00	2	1.267	6	2	8
Behavioral disengagement score	292	3.90	4.00	2	1.642	6	2	8
Self distraction score	292	5.93	6.00	7	1.433	6	2	8
Self blame score	292	4.28	4.00	2	1.992	6	2	8

**Table 9: Association between Predictor Variables and Practices of Adaptive Coping**

Predictor Variable	Group/Subgroup	Mean of Practices	Median of Practices	P-value
Age	<25	43.39	43.5	0.612
	>=25	43.54	45	
Gender	Male	42.29	42.00	0.115
	Female	43.89	45.00	
Nationality	Arab	43.42	44.00	0.797
	Non-Arab	42.97	43.00	
	Local	43.73	44.00	
Marital Status	Single	43.39	44.00	0.913
	Married	43.54	45.00	
Occupation	Student	43.19	43.00	0.598
	Employed	44.27	45.00	
	Unemployed	43.27	45.00	
Degree	School Degree	42.91	43.50	0.361
	University	43.81	44.0	
Income	<=10000	43.19	43.00	0.476
	>10000	43.86	45.00	
Stress	Stressed	43.84	44.50	0.194
	Non-Stressed	42.38	43.00	
Level of Knowledge	Good Knowledge	44.71	45.00	0.010
	Poor Knowledge	42.21	43.00	
Attitudes of adaptive coping	Extremely Beneficial	45.75	46.00	<0.001
	Moderately Beneficial	40.57	40.00	
	Slightly Beneficial	33.67	32.00	



**Table 10: Association between Predictor Variables and Practices of Maladaptive Coping**

Predictor Variable	Group/Subgroup	Mean of Practices	Median of Practices	P-value
Age	<25	24.93	24.00	0.055
	>=25	23.65	23.00	
Gender	Male	23.68	22.00	0.022
	Female	24.95	24.00	
Nationality	Arab	24.35	24.00	0.610
	Non-Arab	24.37	23.00	
	Local	25.24	24.50	
Marital Status	Single	25.00	24.00	0.022
	Married	23.25	22.00	
Occupation	Student	25.00	24.00	0.098
	Employed	24.19	23.00	
	Unemployed	22.82	22.00	
Degree	School Degree	24.55	24.00	0.950
	University	24.61	24.00	
Income	<=10000	24.55	24.00	0.556
	>10000	24.64	24.00	
Stress	Stressed	25.19	24.00	0.003
	Non-Stressed	23.08	22.00	
Level of Knowledge	Good Knowledge	24.60	24.00	0.872
	Poor Knowledge	24.57	24.00	
Attitudes of adaptive coping	Extremely Beneficial	24.74	24.00	0.367
	Moderately Beneficial	24.61	24.00	
	Slightly Beneficial	21.50	21.50	

## Discussion

The findings of this study provide significant insights into the knowledge, attitudes, and practices of coping mechanisms used by UAE residents during the COVID-19 pandemic. The study highlights several key areas that require attention, particularly the low levels of knowledge about effective coping strategies and the reliance on both adaptive and maladaptive coping mechanisms.

One of the most striking results is that 150 (51.4%) of the participants had poor knowledge of coping mechanisms. This lack of awareness might explain why a large percentage of the population resorted to maladaptive coping mechanisms, such as self-distraction and venting. Public health education is detrimental in increasing knowledge about effective coping strategies. Improving awareness can lead to better stress management, emphasizing the need for targeted educational initiatives. To address this gap, health authorities could implement structured mental health literacy programs, integrating coping strategies into workplace wellness programs, school curricula, and community health initiatives. Previous studies have shown that targeted mental health education significantly improves adaptive coping skills and reduces reliance on maladaptive behaviors [16].

The study also shows a notable association between demographics and knowledge levels. Younger participants, single participants, students, and those with higher incomes were more likely to have better knowledge about coping strategies. Educational level and socioeconomic status may influence one's ability to access and understand effective coping strategies.

The results further demonstrate that most participants believe that coping mechanisms are beneficial. There was a substantial reliance on both adaptive (n=173, 59.2% rated extremely beneficial) and maladaptive (n=183, 62.7% rated extremely beneficial) coping mechanisms. This dual reliance highlights a mixed understanding of which strategies are most effective for managing stress. While strategies like planning and emotional support were highly rated, so were self-distraction and venting, which can sometimes exacerbate stress if over-relied upon. This complexity indicates a critical need for educational campaigns that clarify the differences between adaptive and maladaptive mechanisms.

Another significant finding was the prevalence of stress during the pandemic, with 210 (71.9%) of participants reporting increased levels of stress. The most common stressors identified were related to online learning and the health of family members. Interestingly, financial stress was also a major factor, which may have been exacerbated by the pandemic's impact on employment and the economy. This resonates with broader research that underscores the psychological impacts of the pandemic, particularly regarding financial stress and health concerns.

This study aligns with global research emphasizing the importance of effective coping mechanisms during crises like the COVID-19 pandemic. For example, a study by Park et al on coping strategies during COVID-19 in South Korea found that adaptive coping strategies such as positive reframing, acceptance, and religious coping significantly improved psychological resilience, similar to our findings [17]. Moreover, research in Western populations has shown that individuals with greater knowledge of coping mechanisms tend to employ more effective stress management techniques, reinforcing the importance of mental health education [18]. These global comparisons suggest that increasing awareness and accessibility to mental health resources can lead to better psychological outcomes in diverse populations.

However, the notable use of maladaptive coping mechanisms suggests the need for awareness programs to educate the population on effective stress management techniques. The association between good knowledge and better practices of adaptive coping mechanisms further emphasizes the importance of targeted educational campaigns. Health authorities could leverage the results of this study to design initiatives that promote mental health literacy, particularly around coping mechanisms that foster long-term resilience.

### **Limitations**

It is important to note that the selection of the sampling method was limited by the fact that the data collectors were medical students at the time. A convenience sampling approach was used to collect surveys from UAE residents aged 18 and above. This may limit the ability to generalize the study's findings. Therefore, a similar study conducted on a national scale would be needed for more generalizable results. Additionally, due to the constraint mentioned above, most participants were females, single, and students between the ages of 18-24. As a result, the sample may not adequately represent other age groups, genders, or occupations.

Furthermore, the reported knowledge and attitudes might not fully reflect participants' actual perceptions. A few interviewees declined to participate in the study. Non-response bias resulted from the fact that none of their answers were recorded. Nevertheless, the correlations derived from the study are valuable and can serve as a foundation for future research.

### **Conclusions**

To conclude, this study highlights the lack of awareness among UAE residents regarding stress-coping strategies. Stress management is essential, particularly in times of crises like the COVID-19 pandemic, which intensified anxiety and depression worldwide. Adaptive coping strategies such as engaging in physical activity and connecting with family and friends have proven effective in reducing stress. Awareness campaigns and activities that encourage healthy coping mechanisms among the community will be vital in building resilience and enhancing mental health in the face of the future.

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