Demographical Factors Associated with Psychological Distress and Family Environment during COVID-19 Pandemic in Jordan: A Large Sample Study

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ABSTRACT

Background: *This study investigates the demographical factors associated with psychological distress and the family environment during the COVID-19 Pandemic in Jordan.* ***Objectives:*** *The sample consisted of (1211) participants (355 males and 856 females) aged (18 to 67) years. The Kessler Psychological Distress Scale (K10) and The Modified Short-form Family Environment Scale were used.* ***Results:*** *Females and unmarried have more psychological distress than males and married; secondary and less level and bachelor level showed the most elevated psychological distress; offspring have high psychological distress than parents. Males showed higher cohesion, expression, and conflict scores than females. Also, postgraduate individuals have higher scores in cohesion and expression, whereas individuals with a diploma level have higher scores in the Organization. Fathers scored higher than mothers and offspring in cohesion, expression, conflict and Organization, whereas offspring scored higher than parents in intellectual-cultural orientation. The correlation results showed that psychological distress correlated negatively with age and positively with the number of family members; age correlated positively with all family environment dimensions except recreational activities and negatively with intellectual-cultural orientation. The number of family members correlated negatively with all the family environment dimensions but positively with intellectual-cultural orientation. Finally, commitment to governmental regulations was correlated positively with all family environment dimensions except expression and correlated negatively with conflict.* ***Conclusion:*** *These results were discussed in the context of the COVID-19 pandemic.*

Keywords: Covid-19, Psychological distress, Family environment

INTRODUCTION

The restrictions that most governments have implemented worldwide to contain the COVID-19 pandemic (lockdown, quarantine, or curfew) have significantly impacted people's daily lives. In addition to its socioeconomic impacts, it has separated people from their loved ones, restricted their movements, increased domestic violence, switched operations to remotely (studying and working), changed wedding and consolation habits, put financial strains and strict rituals for hygiene [1].

This confinement (Imprisonment) has immediate and long-term consequences. It potentially leads to the psychological impact of COVID-19 on people's mental health, such as an increase in the psychological symptoms of anxiety, distress,

disturbed sleep and depression and affecting family functions (For a review, see Rajkumar, 2020; Clemente-Suárez et al., 2020) [2].

Since the breakdown of the COVID-19 pandemic, enormous studies have investigated the pandemic's psychological sequences in different aspects of human life. However, there was no direct research about the relationship between the demographical factors, psychological distress and family environment, so this study aimed to investigate the relationship between some demographical factors, psychological distress and family environment during COVID-19 in Jordan. The demographical factors include sex, age, marital status, level of education, family members who respond to the questionnaires (fathers, mothers, or offspring), the number of family members, and commitment to the governmental regulations. The study was conducted from October to December 2020 [3].

Family Environment

The family environment includes the circumstances and social climate conditions within families. Each family environment is unique as each family comprises different individuals in a different setting (the discussion of this concept is beyond the scope of this study). The relationship between family environment and family members is mutual, affecting each other, and in unexpected circumstances such as a pandemic, this relationship is affected.

Fathers and mothers needed to deal with many changes regarding their children. As their children stay home twenty-four hours away from school, they need to organize playing areas, plan physical activities, and do or help with their children's school responsibilities. Likewise, numerous guardians needed to oversee challenges and torment identified with sick or dead family members, having had limited income or sometimes lost their work.

A better family environment was shown to be associated with higher levels of self-efficacy. For example, family members can freely communicate with each other, express themselves, and have frequent high contact intimacy with other family members, which will lead, in turn, to a high level of self-efficacy. In addition, some studies suggest that a high level of self-efficacy was associated with low anxiety and depression [4-6].

Age

The COVID-19 pandemic affects all age groups, particularly older people, either because of the consequences of the regulations or if they catch the virus (WHO, 2020 a, b). However, older people, especially women, are more concerned about healthy behaviour as the consequences may be vital, whereas younger people may not suffer the consequences of unhealthy choices (Barber and Kim, 2020). However, Wang et al. (2020) found no relationship between age and stress during the COVID-19 pandemic. Relatedly and concerning age, Bergdahl and Bergdahl (2002) found that the level of stress increased between 20 years and 40 years of age, and this increment reached the lowest degree by the age of (60) [7-9].

Marital Status

Married people have higher coping skills than single people. Singles scored higher in measures of anxiety, depression and distress. Individuals with children reported an increased stress level during the COVID-19 pandemic; this stress may increase parents' depression and anxiety. Some studies found higher distress among singles than married people. Also, higher rates of psychological distress were found among younger and unmarried individuals [10,11].

Level of Education

Psychological problems appear more in disadvantaged socioeconomic groups one of the variables that specify the variability groups is the level of education that differs from one community to another (Molarius and Granstrom, 2018). Although low education is associated with mental health problems (Fryers, Melzer, and Jenkins, 2003), the association between educational level and psychological distress varies according to different variables: culture, population, gender, and may change over time [12,13].

The literature results were inconsistent; some studies found that postgraduate students scored higher in coping than secondary school holders who reported more stress, and lower education is more susceptible to poor coping strategies with stress and distress [14]. Other studies found an association between low education and high prevalence of depression and another study found that people with a low and medium level of education had a lower risk of psychological distress than people with high education [15-17].

Sex

Women experienced higher distress during quarantine, and they may take care of their work responsibility and care for

children, husbands, and homes. In addition, females are more vulnerable to developing mental and physical problems in response to life stressors or potentially traumatic events this may be because females are exposed to risk factors such as gender inequality, gender-based violence and gender discrimination [18].

In Jordan, Massad et al. (2020) found that approximately four out of ten participants experienced COVID-19-related anxiety. In addition, younger participants, women, and people with poor social support were more likely to experience quarantine-related anxiety [19].

Wang, Kala and Jafar (2020) reviewed 68 studies comprising (288,830) participants from 19 countries. They found that the prevalence of anxiety and depression was more in females versus males, younger ages versus older, living in rural versus urban areas, and lower versus higher socioeconomic status.

Study questions

Q1: Are there significant differences in the sample performance on the K10 scores related to sex, level of education, marital status, and the family member who answered the study questionnaires (fathers, mothers, and off sprig)?

Q2: Are there significant differences in the sample performance on the modified short-form family environment scale (MSFES) scores related to sex, level of education, marital status, and the family member who answered the study questionnaires?

Q3: Is there a significant correlation between K10 scores and the demographical factors (age, number of family numbers and level of commitment to governmental regulations)?

Q4: Is there a significant correlation between the Modified Short-Form Family Environment Scale (MSFES) and the demographical factors (age, number of family numbers and level of commitment to governmental regulations)?

METHODS

Sample

The sample comprised 1211 adults (355 males and 856 females) aged between 18 years to 67 years (mean age 29.55 years, SD: 10.84). See Table 1 for sample characteristics.

Measures

- Demographics: The demographic factors included sex, age, marital status, level of education, role within the family (father, mother and offspring), family members number, and commitment to governmental regulations.

- The Kessler Psychological Distress Scale (K10): K10 is a simple measure of psychological distress that aims to measure depression and anxiety symptoms using ten questions answered according to the previous four weeks. Each question is scored from one "none of the time" to five "all of the time", and scores range from 10 (indicating low psychological distress) and 50 (indicating severe psychological distress). A cutoff score of twenty and above will be considered as reflecting the degree of psychological distress [20,21].

- K10 has been translated and validated for Arabic culture by Easton et al. (2017) and is used extensively in many countries. The reliability of the Arabic version was 0.88, and in the current study, Cronbach's alpha was 0.93.

Table 1 Sample characteristics.

Demographical factors		N	%	Total
Sex	Male	355	29.30%	1211
	Female	856	70.70%	
Social status	Unmarried	731	60.40%	1211
	Married	480	39.60%	
Level of education	Secondary and less	74	6.10%	1211
	Diploma	66	5.50%	
	Bachelor	811	67.00%	
	Post Graduate	260	21.50%	
The role in the family	Father	211	17.40%	1211
	Mother	245	20.20%	
	Offspring	755	62.30%	

- The Modified Short-form Family Environment scale (MSFES): This is an Arabic modified version of the original scale (Moos and Moos, 1986). The original scale consists of 90 items that have been modified and abbreviated to 36 items. The modified version consists of the following six subscales (name and number of items): Cohesion (13,19,1,7,31,25), Expression (14,2,20,8,26,32), Conflict (33,21,27,3,9,15) Intellectual-cultural orientation (I-C0) (22,34,4,16,10,28) Orientation Towards Recreational Activities (OTRA) (29,35,11,17,23), and Organization (24,30,36,6,18,12).

The scale has been used to assess the family environment from different informants' perspectives and single-family members' perspectives (Charalompous, Kokkions, and Panayiotou, 2013).

The participants made their choice on a Likert scale from (1-5); (1) applied very weakly, (2) applied weakly, (3) applied moderately, (4) applied highly, and (5) applied very highly. For the current study, Cronbach's alpha for the subscales was 0.801-0.890.

Procedure: a cross-sectional study has been done using Google form and published using the Internet, targeting participants aged 18 and above years, Arabic-speaking mothers tong, given a consent form and completed all questionnaires. The data were collected between October-November 2020.

RESULTS

Q1: Are there significant differences in the sample performance on the K10 scores related to sex, level of education, marital status, and the family member who answered the study questionnaires? The t-test for two independent groups was done for sex and marital status, whereas analysis of variance (ANOVA) was done for level of education and the family member who answered the study questionnaires.

Table 2 shows the t-test results for sex and marital status.

Table 2 K10 independent samples t-test (SEX and marital status).

K10 (Twenty and above)	Sex	N	Mean	Std. Deviation	F	Df	Significant.
Sex	Male	239	23.251	9.695	2.93	837	0.000*
	Female	600	26.245	9.059			
Marital status	Unmarried	519	26.15	9.28	0.028	837	0.003*
	Married	320	24.163	9.313			
*The mean is significant at the 0.05 level.							

The results and discussion can be presented as follow:

Looking at the means in Table 2, females scored significantly higher on the twenty and above level. The percentage of psychological distress among the whole sample was 69.28% (twenty and above level). This suggests that the entire sample has higher psychological distress, and females experience more psychological distress than males. Males may have more resilience than females during pandemics and feeling that they carry more responsibilities in such a crisis may make them show less psychological distress. On the other hand, females' work may be impacted more during the COVID-19 pandemic, and the responsibilities of females like home caring and hormonal changes (ovarian hormones), female-typical roles, fear of contamination and fear of losing family members may make them more susceptible to psychological distress [22].

In addition to this, the brain functions associated with emotional distress regulation and cognitive control were more noticeable in males than females. These results that females have more psychological distress during the COVID-19 pandemic are consistent with e.g. Xiong et al., 2020; Tee et al., 2020; and Wang et al., 2020 [23-25].

Looking at the means (Table 2), singles (unmarried) people score significantly higher in the twenty and above level (in per cent 71% unmarried vs 66.7% married), suggesting that unmarried people have higher.

These results suggest that unmarried people suffered more psychological distress than married people during COVID-19. The higher unmarried psychological distress, compared to married people, may occur because married people have more social support than unmarried, and family members could express more of their problems, concerns, and strains as they feel that they share the strains (collective unconscious). In contrast, unmarried people do not have this sharing opportunity with an intimate partner. Therefore, during COVID-19 and its regulations, such as quarantine, lockdown, and friends staying apart, unmarried people will feel lonelier, and loneliness predicts psychological distress. In addition, unmarried people may be more concerned about the caring

Table 3 K10 Descriptive statistics

Variables		Mean	Standard Deviation
Educational Levels	Secondary and Less	27.64	9.12
	Community College Diploma	27.17	8.47
	Bachelor's Degree	26.06	9.47
	Post Graduate Studies	22.56	9.15
The Role In The Family	Father	22.76	9.5
	Mother	25.77	9.61
	Offspring	26.12	9.27

Table 4 Shows the results of K10 (Twenty and above) and educational levels (ANOVA).

K10 Score	Sum of Squares	df	Mean Square	F	Significant
Between groups	2100.839	3	700.2798	8.24	0.000*
Within groups	70961.15	835	84.98341		
Total	73061.99	838			
*The mean is significant at the 0.05 level.					

Table 5 Shows the results of K10 (Twenty and above) and the role in the family (ANOVA)

K10 Score	Sum Of Squares	Df	Mean Square	F	Significant
Between groups	1114.545	2	557.273	6.475	0.002*
Within groups	71947.44	836	86.062		
Total	73061.99	838			
*The mean is significant at the 0.05 level.					

Table 6 shows the results of the t-test between MSFES subscales sex and marital status.

MSFES		Sex	N	Mean	Std. Deviation	F	df	Significant
Sex	Cohesion	Male	355	20.837	5.281	6.925	1209	0.000*
		Female	856	19.582	5.759			
	Expression	Male	355	20.29	5.247	8.226	1209	0.071
		Female	856	19.653	5.712			
	Conflict	Male	355	15.862	6.306	9.185	1209	0.062
		Female	856	15.18	5.566			
	I_C0	Male	355	15.724	5.187	2.007	1209	0.016*
		Female	856	16.525	5.456			
	OTRA	Male	355	18.935	4.949	5.414	1209	0.971
		Female	856	18.947	5.388			
	Organization	Male	355	19.761	4.988	0.003	1209	0.141
		Female	856	19.299	4.878			
Marital Status	Cohesion	unmarried	731	19.317	5.856	8.696	1209	0.000*
		Married	480	20.913	5.181			
	Expression	unmarried	731	18.937	5.693	7.723	1209	0.000*
		Married	480	21.215	5.125			
	Conflict	unmarried	731	14.904	5.304	28.589	1209	0.000*
		married	480	16.104	6.418			
	I_C0	unmarried	731	16.951	5.321	0.116	1209	0.000*
		married	480	15.283	5.341			
	OTRA	unmarried	731	18.773	5.505	12.277	1209	0.163
		married	480	19.204	4.859			
	Organization	unmarried	731	19.081	4.977	2.5	1209	0.002*
		married	480	19.973	4.769			
*The mean is significant at the 0.05 level.								
MSFES: Modified Short Form Family Environment Scale, I-CO: intellectual-cultural orientation, OTRA: orientation toward recreational activities.								

aspect during the pandemic (i.e., who will take care of them if they get infected and remind them of self-hygiene rituals). Besides, unmarried people are alone during the pandemic facing its consequences; for example, no other family member will compensate if they lose their jobs. Another point related to the feeling of identity, as being husband, father or mother, with doing the related roles gives people the feeling of value, especially when they support others during the tough time. Therefore, it seems that being alone makes people suffer more in crises and pandemics than if they are married (Table 3).

Analysis of Variance (ANOVA) and Post hoc Scheffe test showed significant differences in the K10 in the twenty and above level and the level of education (Table 4). The secondary and less level showed higher scores than the postgraduate level (p-value 0.012), and the bachelor level showed higher scores than the postgraduate level (p-value 0.000) (Table 3).

Also, analysis of Variance (ANOVA) and Post hoc Scheffe test showed significant differences in the K10 twenty and above level and the role in the family (Table 5). The mothers showed higher scores than fathers (p-value 0.026), and offspring showed higher scores than fathers (p-value 0.002).

Table 7 MSFES Descriptive statistics

		Educational level				The role in the family		
		Secondary and less	Community College Diploma	Bachelor's Degree	Post Graduate Studies	Father	Mother	offspring
Cohesion	Mean	19.28	20.26	19.67	20.95	21.79	20.37	19.3
	Std. Deviation	5.69	5.41	5.71	5.43	4.9	5.25	5.85
Expression	Mean	19	20.35	19.56	20.83	21.47	21.07	18.99
	Std. Deviation	5.1	5.37	5.76	5.08	4.88	5.31	5.69
Conflict	Mean	14.97	15.52	15.16	16.15	16.95	15.1	15.03
	Std. Deviation	5.46	6.25	5.75	5.89	6.7	5.94	5.4
I_C0	Mean	16.09	15.61	16.39	16.22	15.26	15.65	16.79
	Std. Deviation	4.58	5.96	5.29	5.77	5.4	5.44	5.31
OTRA	Mean	18.43	20.03	18.75	19.42	19.56	18.97	18.76
	Std. Deviation	5.65	5.07	5.29	5.05	4.73	4.82	5.52
Organization	Mean	18.5	20.82	19.2	20.08	20.57	19.31	19.16
	Std. Deviation	5.3	4.23	4.91	4.86	4.73	4.79	4.96

Table 8 Shows the results of ANOVA between MSFES subscales and educational level.

MSFES Score		Sum of squares	Df	Mean square	F	Significant
Cohesion	Between groups	362.576	3	120.859	3.812	0.01*
	Within groups	38267.35	1207	31.705		
	Total	38629.93	1210			
Expression	Between groups	386.757	3	128.919	4.165	0.006*
	Within groups	37360.16	1207	30.953		
	Total	37746.92	1210			
Conflict	Between groups	205.23	3	68.41	2.04	0.107
	Within groups	40480.04	1207	33.538		
	Total	40685.27	1210			
I_C0	Between groups	42.805	3	14.268	0.491	0.689
	Within groups	35098.46	1207	29.079		
	Total	35141.27	1210			
OTRA	Between groups	187.933	3	62.644	2.27	0.079
	Within groups	33302.25	1207	27.591		
	Total	33490.18	1210			
Organization	Between groups	344.269	3	114.756	4.799	0.003*
	Within groups	28863.26	1207	23.913		
	Total	29207.53	1210			
*The mean is significant at the 0.05 level.						
MSFES: Modified Short Form Family Environment Scale, I-CO: intellectual-cultural orientation, OTRA: orientation toward recreational activities						

Q2: Are there significant differences in the sample performance on the modified short-form family environment scale (MSFES) scores related to sex, level of education, marital status, and the family member who answered the study questionnaire?

The t-test for two independent groups was done for sex and marital status (Table 6), whereas analysis of variance (ANOVA) was done for level of education and the family member who answered the study questionnaires.

First results of the t-test

- Males scored significantly higher on cohesion, expression, and conflict, but females scored significantly higher on orientation toward recreational activities.

Although the averages in these subscales are significant, they were close; males show more cohesion, expression and conflict; males may probably feel more responsible in the pandemic situation, showing more cohesion and expression and related to this responsibility, they show more conflict. In comparison, females tend to orient toward the recreational activities subscale, maybe because they think this is part of their responsibilities and may regard these activities as part of female-typical behaviour.

- Married people scored significantly higher than unmarried in cohesion, expression, orientation toward recreational activities and conflict subscales.

Being married and having a partner, and maybe children, may require practising more cohesion than unmarried as married people have another member to express the bad and good experiences, and they have more atmosphere to practice recreational activities, but if they are alone, that would be limited. Concerning the conflict, married people have a partner and family members to agree and disagree with them, whereas such thing is absent from unmarried people's lives.

The second results of ANOVA Table 7 show the descriptive statistics of the results, and Table 8 shows the ANOVA results.

Analysis of Variance (ANOVA) and post hoc Scheffe test showed the following results

- The results showed significant differences in Cohesion and the level of education. The postgraduate level showed higher scores in cohesion than the bachelor level (p-value 0.017) (Table 6).

Table 9 Pearson correlations between K10 Scale and the demographical factors.

Factors	Age	Commitment to regulations	Number of family members	K10
Age	1	0.05	-0.300**	-0.150**
Commitment to regulations		1	0.053	-0.052
No. of Family members			1	0.120**
K10				1
** Correlation is significant at the 0.01 level (2-Tailed).				

Table 10 Pearson correlations between MSFES subscales and the demographical factors

Variables	Age	Commitment to regulations	number of family members	Cohesion	Expression	Conflict	I_CO	OTRA	Organization
Age	1	0.05	-0.300**	0.090**	0.154**	0.102**	-0.172**	0.023	0.081**
Commitment to regulations		1	0.053	.081**	0.025	-0.068*	0.081**	0.102**	0.076**
No. of Family members			1	-0.063*	-0.094**	-0.026	0.119**	-0.063*	-0.079**
Cohesion				1	0.791**	-0.071*	0.436**	0.726**	0.687**
Expression					1	0.157**	.271**	0.639**	0.686**
Conflict						1	-0.240**	-0.034	0.175**
I-C0							1	0.532**	0.340**
OTRA								1	0.644**
Organization									1
** Correlation is significant at the 0.01 level (2-Tailed); * Correlation is significant at the 0.05 level (2-Tailed).									
MSFES: Modified Short Form Family Environment Scale, I-CO: intellectual-cultural orientation, OTRA: orientation toward recreational activities									

- The results showed significant differences between the expression and the level of education. The postgraduate level showed higher scores in the expression than the bachelor's (p-value 0.017).

- The results showed significant differences in the Organization and the level of education. The diploma level showed higher scores in the organization than the secondary and less level (p-value 0.05).

- The results showed significant differences in cohesion and the role in the family. The differences were between fathers and mothers (p-value 0.026); the fathers showed higher scores in the cohesion and the fathers and offspring (p-value 0.000); the fathers showed higher scores in cohesion and the mothers and offspring (p-value 0.034); the mothers showed higher scores in the Cohesion.

- The results showed significant differences in the expression and the role in the family. The differences were between fathers and offspring (p-value 0.000); the fathers showed higher scores in the expression, and the mothers and offspring (p-value 0.000); the mothers showed higher scores in expression.

- The results showed significant differences in conflict and the role in the family. The differences were between fathers and mothers (p-value 0.003); fathers showed higher scores in the conflict; fathers and offspring (p-value 0.000); the fathers showed higher scores in conflict.

- The results showed significant differences in the intellectual-cultural orientation and the role in the family. The differences were between fathers and offspring (p-value 0.001); the offspring showed higher scores in the intellectual-cultural orientation, and the mothers and offspring (p-value 0.016); the offspring showed higher scores in the intellectual-cultural orientation.

- The results showed significant differences in the organization and the role in the family. The differences were between fathers and mothers (p-value 0.023); the mothers showed higher scores in the organization, and the fathers and offspring (p-value 0.001); the offspring showed higher scores in the organization.

Q3: Is there a significant correlation between k10 scores and the demographical factors (age, number of family numbers and level of commitment to governmental regulations)? The results are presented in Table 9.

The results of the Pearson correlation coefficient showed a significant negative correlation between age and the number of family members, which means that as age increase, the family number decrease, and this fits with the notion that they tend to have fewer children as people age.

Age also showed a significant negative correlation with psychological distress (K10), suggesting that as people get old, they have less psychological distress; maybe they rationalize that there is nothing to worry about anymore. Also, age correlated positively with resilience and resilience correlated negatively with psychological distress [26]. Other studies found that psychological distress decline with age (e.g., Jorm et al., 2005). This result is inconsistent with other studies (e.g., Barber and Kim, 2020; Losada-Baltar et al., 2021).

On the other hand, the number of family members showed a significant positive correlation with psychological distress (K10). Increased family members are associated with increased demands of family space, income, conflict and other resources of the family, which in turn may increase psychological distress among the family members [27].

Q4: Is there a significant correlation between the modified short-form family environment scale (MSFES) and the demographical factors (age, number of family members, and level of commitment to governmental regulations)? The results are presented in Table 10.

The person correlation coefficient showed the following results

First: There is a significant positive correlation between age, cohesion, expression, conflict, and organization, suggesting that these family characteristics increase with age. All these are expected to increase with age as they are positive family characteristics except for conflict. Therefore, one would expect that as people get older, they may lose temper and be involved more in family conflicts; however, one may disagree with this and explain that people try to live in peace as they age and avoid conflicts. Also, the results showed a significant negative correlation between age and intellectual-cultural orientation. Although this suggests that as people age, they become less interested in social, intellectual, social and cultural activities; one would predict the opposite correlation. Maybe the culture did not encourage participation in such activities, and perhaps people in the COVID-19 pandemic are not interested in these activities due to the pandemic impacts [28].

Second: Commitment to government regulations was positively correlated with family subscales; cohesion, intellectual-cultural orientation, orientation towards recreational activities, organisation and correlated negatively with conflict. Commitment to government regulations seems associated with the family's positive characteristics; the more the family cohesion, involvement in intellectual cultural activities, and recreational activities, the more they become accustomed to governmental regulations. Conversely, if people are engaged in family conflict, they seem not to comply with the government's regulations.

Third: The number of family members correlated negatively with all family environment subscales except conflict (did not reach significant) and correlated positively with the intellectual-cultural orientation subscale. This correlation suggests that increasing family numbers may interfere negatively with cohesion, expression, sharing of recreational activities, and organisation of family affairs. In addition, increased family numbers may make the family space crowded, affecting family activities [29]. For some activities such as intellectual-cultural orientation, the correlation results suggest that increasing numbers of family numbers are associated with increased sharing in intellectual cultural orientation; probably, the increased number of family members makes sharing possible in such activities.

Fourth: Cohesion correlated positively with expression, intellectual-cultural orientation, and orientation towards recreational activities and organization but correlated negatively with conflict. Cohesion allows sharing of all other family positive characteristics and activities; at the same time, it decreases conflict.

Fifth: Expression correlated positively with conflict, intellectual-cultural orientation, and orientation towards recreational activities and organization.

Sixth: Conflict correlated positively with organization and correlated negatively with intellectual-cultural orientation. If conflict (amount of openly expressed anger, aggression, and conflict in the family) increased, the organization (degree of clear organization and structure in planning family activities and responsibilities) during the COVID-19 pandemic increased. Maybe people put more effort into the family's organization, like commitment to government regulation, hygienic rituals, budgeting, and schedule of the family responsibilities where conflict is expected between family members. The negative correlation between conflict and intellectual-cultural orientation (interest in political, social, intellectual, and cultural activities) can be explained as family members sparing no time for such activities during the pandemic. As conflict increases, participation in such activities also decreases; maybe conflict takes all the time [30-35].

Seventh: Intellectual-cultural orientation correlated positively with an orientation towards recreational activities and organization. To share interests in, for example, political, social, intellectual, and cultural activities, people need to have the capacity to share recreational activities, and these two need more organization to be accomplished. During COVID-19, families are confined at home and may have less physical activities, which may spare time for recreational activities and be oriented toward intellectual-cultural activities [36].

Eighth: Orientation towards recreational activities correlated positively with the organization. It is a mutual relationship; to share and do recreational activities, people need organization; if they are organized, they can do more recreational activities. People during COVID-19 may suddenly be oriented toward these activities because their usual activities diminished [37, 38].

CONCLUSION

This study investigated the demographic factors associated with the effects of COVID-19 concerning psychological distress and family environment. Using a relatively large sample and towards the end of the 2020s, the pandemic still negatively affects mental health and family relations. These adverse effects of COVID-19 affect parents, offspring, married and unmarried people and people with different levels of education.

DECLARATIONS

Conflict of Interest

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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