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The Relationship Between Social Aversion and Bullying Behavior and The Social and Psychological Adjustment of The Infected and The Recovered from Corona Virus

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Abstract: This study aimed at finding out the relationship between social aversion and bullying and the social and psychological adjustment of a sample of university students who were infected or recovered from corona virus. Three measures were developed by the researcher (a. social aversion measure, b. bullying behavior measure and c. the social and psychological adjustment measure). These measures were administered to a sample of (210) students (101 infected and 109 recovered). Results showed significant positive correlation between social aversion and social and psychological adjustment of both the infected and the recovered students. There was also a significant correlation between bullying and social and psychological adjustment of the recovered students, but not of the infected students. Moral aversion and psychological bullying were the most common and influential factors affecting the social and psychological adjustment of both the infected and the recovered people. Negligence was the least influential one for both groups. There were no differences between the scores of infected groups and the recovered group on the social aversion measure, but there were significant differences between their scores on the bullying measure and on the social and psychological adjustment measure and on two of its pivots: the psychological adjustment and health adjustment in favor of the recovered group.

Key words: bullying behaviors, Covid 19 virus, social and psychological adjustment, social aversion.

1 Introduction

The stressful circumstances that resulted from the spread of Covid-19 led to the emergence of some social problems such as social aversion (SA) and bullying behaviors (BB). Social aversion means disconnecting from infected friends and family leading to strong negative effects on family and other social relationships [1]. Among the features of social aversion are losing sympathy and love for the infected, giving humiliating comments about them, and keeping away from them for fear of being infected. These behaviors lead to a state of social alienation [2].

Moreover, social aversion negatively influences social relationships. Staying at home to prevent the spread of the disease strongly depressed some infected people to the extent that they committed suicide as indicated by the results of a survey on the effect of corona virus on peoples' psychological health published by the Kaiser Family Foundation on the 2nd of April 2020 [3]. Bullying behavior was also affirmed by [4] as a social problem at the time of corona virus. Bullying behaviors reflect a negative view towards the infected people that made them feel ashamed and tend to hide their infection instead of hurrying to specialists to have the required medical treatment in order to control the spread of the disease [5].

Many of those infected and recovered from Covid-19 greatly suffered from SA and BB to the extent that some families refused to bury their dead people in their family tombs [6]. These reasons aroused the researcher's concern to study the effects of (SA) and (BB) as dangerous social phenomena on the psychological health of those infected and recovered from corona virus. As Arabic studies on (SA) and (BB) are very rare, this study aimed at studying these variables and their effect on the social and psychological adjustment of a sample of university female students in Saudi Arabia.

2 Research Questions

This study seeks to achieve its objectives by answering the following main question:

Is there a statistically significant correlation between (SA) and (BB) and the social and psychological adjustments for those infected or recovered from COVID-19?

The following sub-questions emerge from this:

1- Are there differences among the (SA) dimensions in terms of spread and effect on the social and psychological adjustment (S & P A) of those infected and recovered from Covid-19?



- 2- Are there differences among the (BB) dimensions in terms of spread and effect on the (S & P A) of those infected and recovered from Covid-19?
- 3- Are there significant differences between the scores of the infected and the recovered students from COVID-19 on the (SA) measure?
- 4- Are there significant differences between the scores of the infected and the recovered students from COVID-19 on the (BB) measure?
- 5- Are there significant differences between the infected and the recovered students from COVID-19 on the measure of social and psychological adjustment?

3 Review of Literature

Social Aversion and Corona virus:

The spread of the Coronavirus resulted in the emergence of a negative social phenomenon called social aversion (SA). It happened to individuals or groups of people who were infected and/or recovered from the disease. Social aversion had negative psychological, social and/or physical effects on those people to the extent that they sometimes become aggressive or introvert [7].

Many research studies explained the symptoms of Coronavirus and its social and psychological complications. They stated that Corona is a contagious disease accompanied by a state of anxiety and panic that passively influence the psychological and social security of those infected and those in contact with them [8], [9], [10], [11], [12]. [13] also showed that social aversion leads to psychological disability and infirmity or paralysis. Also, in the Arab World, revealed that Corona pandemic raised the anxiety levels of Omani and Bahraini people. So, these people need support as indicated by [14]. He affirmed that infected mothers needed social and psychological support to tackle depression resulting from the aversion of their family members.

[15] found out that some social factors were the main reason behind social aversion and the aggressive behaviors, anger and depression that spread among male and female young people.

Bullying

Among the forms of aggressive behaviors related to social aversion is bullying. When bullying is intended, persistent and oppressive, it leads to social and psychological mal adjustment for both the victims and the aggressors.

There are different forms of bullying: verbal bullying, (such as: teasing, sarcasm, impolite comments, threatening and using bad nicknames), physical bullying (such as: beating, slapping, and stabbing, etc.), psychological emotional bullying (such as: embarrassing, exclusion, and repulsion), and electronic bullying [16].

People who are liable to bullying suffer from stress, anxiety and tension which negatively affect their emotions, thinking and behavior. They also develop feelings of sadness and disappointment; they no longer enjoy doing what they used to do; they might get angry and disturbed easily; they suffer from problems of low concentration and inability to do daily activities [17]. Many factors lead to bullying including cultural, economic, social, and psychological factors [18].

The results of a study by [19] showed that university students who were liable to electronic bullying had less secure family relationships and social and psychological adjustment than those who were not liable to bullying. [20] found out that electronic bullying had negative effects on adolescents. Bullying also spread among personnel in universities as revealed by [21]. Features of bullying there included the spread of discrimination among personnel and authoritative administrations.

Social and Psychological adjustment (S & P A):

Social and psychological adjustment has three levels: individual, group and integrative [22]. Zahran identified some indicators of social and psychological adjustment (S & P A). They include realistic approach to life, one's level of ambition, and the ability to fulfil one's psychological needs. added other traits of (S & P A) such as emotional stability and open-mindedness.

Three theories interpret the reasons behind (S & P A): 1. the biological theory which see that all forms of mal adjustment are due to inherited or acquired disturbances. 2. the psycho-analysis theory states that adjustment develops unconsciously when individuals have some balance between their introvert and extrovert tendencies, and 3. the behaviorism theory that attributes (S & P A) to one's conscious interaction with his/her cumulative life experiences [23].

Social and Psychological adjustment theories assert that a human being is a whole integrated unit that must continually endeavors to achieve adjustment.

4 Methodology

-Design:

This study followed the descriptive, correlational design using accurate field observations and survey studies in order to reach reasonable understanding of the (SA) and (BB) variables and their effect on the social & psychological adjustment (S & P A) of those infected and recovered from corona virus.

- Subjects:

There were two samples for this study. A pilot sample and a main sample. Both had female university students in the eastern region in the KSA. Both samples were intentionally selected to include: a. infected students of corona Covid-19 virus in the last two weeks and b. recovered from the disease in the last two or three months. The pilot sample included (100) students (60 recovered and 40 infected) and the main sample included (210) students (109 recovered and 101 infected).

-Instruments:

The researcher developed three measures on social aversion (SA), bullying behavior (BB) and social and psychological adjustment (S & P A) to collect data about the effect of (SA) and (BB) variables on the (S & P A) of the sample of the study. The three measures were reviewed by (6) referees, specialized in mental health, counselling and clinical psychology. Then, validity and reliability procedures were implemented by administering the measures to a sample of (100) university female students in the eastern region in the KSA (60 recovered and 40 infected students) to identify the psychometric traits of the three measures.

a- the social aversion (SA) measure:

At the outset, the (SA) measure included (45) items under four pivots: community rejection, negligence, hypersensitivity, and moral aversion. Based on the feedback from the referees, three items were removed. Then, the correlation between each item and the total mark of the measure were calculated and five more items were removed. So, the final form of the measure included (37) items. Discrimination validity was calculated by comparing the scores of the eldest (18) and youngest (18) students in the pilot sample. (Table 1). Reliability measures (Cronbach's alpha and split half) were implemented (Table 2).

Table 1: Means, Standard Deviation and t values of the scores of the oldest and youngest (18) students on the (SA) measure

Sub-variables	Measured	No.	Means	Standard	t-value	Significance
	quarters			Deviation		
Community	oldest	18	30.50	7.41	2.20 *	Significant at the 0.05 in favor of
rejection	youngest	18	24.22	9.57		the oldest group
negligence	oldest	18	19.61	5.02	2.14 *	Significant at the 0.05 in favor of
	youngest	18	15.72	5.84		the oldest group
Hyper-	oldest	18	48.22	13.46	2.01 *	Significant at the 0.05 in favor of
sensitivity	youngest	18	38.50	15.53		the oldest group
Moral aversion	oldest	18	24.55	6.94	1.84 *	Significant at the 0.05 in favor of
	youngest	18	20.11	7.54		the oldest group
Total score	Oldest	18	119.83	25.34	1.91 *	Significant at the 0.05 in favor of
	youngest	18	103.05	27.43		the oldest group

Data in table (1) reveals that there are significant differences at 0.05 level between the scores of the two groups on the (SA) measure. This indicates that the measure is reasonably valid.

Table 2: Alpha Cronbach reliability test for the social aversion (SA) measure and its pivots:

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Alpha Cronbach	SA measure pivots								
Reliability	Community	Negligence	Hyper-sensitivity	Moral aversion	Whole measure				
coefficient	rejection								
	0.73	0.69	0.80	0.72	0.86				



The table shows high reliability levels of the (SA) measure.

b- The bullying behavior measure:

This measure aimed at identifying the types of bullying that the sample of the study faced during their infection and/or after recovering from corona virus. It first included (45) items under four pivots: verbal bullying, physical bullying, social bullying and bullying that psychologically affect the victims. Validity and reliability measures (discrimination validity, correlation coefficients, alpha Cronbach, internal consistency) were calculated. (Tables 3 and 4)

Table 3: Means, Standard Deviation and t values of the scores of the oldest and youngest (18) students in the pilot sample on the (BB) measure.

Sub-variables	Measured quarters	No.	Means	Standard Deviation	t-value	Significance
Verbal bullying	Oldest Youngest	18 18	31.39 17.06	10.69 7.35	4.69 **	Significant at the 0.01 in favor of the oldest group
Physical bullying	Oldest Youngest	18 18	35.94 20.22	10.75 7.11	5.17 **	Significant at the 0.01 in favor of the oldest group
Social bullying	Oldest Youngest	18 18	23.28 11.61	8.95 5.95	4.60 **	Significant at the 0.01 in favor of the oldest group
Psycho-logical bullying	Oldest Youngest	18 18	33. 56 19.83	10.56 7.43	4.50 **	Significant at the 0.01 in favor of the oldest group
Total score	Oldest Youngest	18 18	117.94 71. 28	32.63 20.72	5.12 **	Significant at the 0.01 in favor of the oldest group

Data in table (3) reveal that there are significant differences at 0.01 between the scores of the two groups on the (BB) measure. This indicates that the measure is highly valid.

Table 4: Alpha Cronbach reliability coefficient for the bullying behavior (BB) measure and its pivots:

Alpha Cronbach SA measure pivots								
R	eliability	Verbal bullying	Physical bullying	Social bullying	Psychological bullying	Whole measure		
C	oefficient	0.86	0.85	0.83	0.84	0.94		

The table shows high reliability levels of the (BB) measure.

c- Social and psychological adjustment measure (S& P A):

This third measure aimed at identifying the factors that influence people's different ways to have social and psychological adjustment. The initial form of the measure included 50 items under five pivots: the psychological factor, the health factor, the social factor, the behavioral factor, and the family factor. Only (37 items) were accepted by all the referees, so, 13 items were deleted. Then, seven more items were deleted after calculating the correlation coefficient of every item to the total score of the measure. So, the final form of the measure had (30) items. Discrimination validity and Alpha Cronbach reliability coefficient were calculated. (Tables 5 and 6)

Table 5: Means, Standard Deviation and t values of the scores of the oldest and youngest (18) students of the pilot sample on the (S & P A) measure.

Sub-variables	Measured groups	No.	Means	Standard Deviation	t-value	Significance
Psycho-logical	oldest	18	34.00	7.21	3.48 **	Significant at the 0.01 in favor of
factors	youngest	18	25.17	8.01	1	the oldest group
Health factors	oldest	18	18.89	3.61	2.82 **	Significant at the 0.01 in favor of
	youngest	18	15.33	3.92		the oldest group
Social factors	oldest	18	18.33	5.01	3.01 **	Significant at the 0.01 in favor of
	youngest	18	12.67	5.57		the oldest group
Behavioral	oldest	18	20.05	4.73	3.35 **	Significant at the 0.01 in favor of
factors	youngest	18	14.72	4.81		the oldest group
Family factors	oldest	18	10.39	3.27	2.63 *	Significant at the 0.05 in favor of
	Youngest	18	7.22	3.91		the oldest group
Total score	Oldest	18	98.89	19.15	3.52 **	Significant at the 0.01 in favor of
	Youngest	18	76.05	19.76		the oldest group

Data in table (5) reveal that there are significant differences at the 0.01 level between the scores of the two groups on the



(S& P A) measure. This indicates that it is highly valid.

Table 6: Alpha Cronbach reliability coefficient for the (S& P A) measure and its pivots:

Alpha	(S & P A) measure pivots							
Cronbach	Psychological	Health	Social	Behavioral	Family	Whole measure		
Reliability	factors	factors	factors	factors	factors			
coefficient	0.65	0.67	0.74	0.70	0.75	0.83		

The table shows high reliability levels of the (S& P A) measure and its pivots.

5 Results

First: Results answering the main question: "Is there a statistically significant correlation between both (SA) and (BB) variables and the social and psychological adjustment (S& P A) of those infected or recovered from COVID-19?"

To answer this question, the correlation coefficient between the scores of the sample of the study on the social and psychological adjustment measure and their scores on both the (SA) and (BB) measures was conducted. (Table 7)

Table 7: Correlation coefficient between the scores of the infected and recovered students on the (SA), (BB) and (S& PA) measures

	Correlation coefficient								
	BB measure	;		SA measure					
Infected	recovered	Total sample	infected	Recovered					
0.137	0.269	0.028	0.657	0.661	0.284	S& PA			

a- Table (7) shows a significant positive correlation between social and psychological adjustment (S & P A) and (SA) at 0.01 level, and (BB) at 0.01 level for the recovered group.

b- as for the infected group, there was a significant positive correlation between (S& P A) and (SA) at 0.01 level. However, there was no significant correlation between (S& P A) and (BB).

c. For the whole sample of both groups (no. 210), results indicate that there was a significant positive correlation between (S & P A) and (SA) at 0.01 level, but there was no significant correlation between (S& P A) and (BB).

Second: results answering the sub-questions:

1- Sub-question One: The mean scores, standard deviation, and proportional weight of the scores of both the infected and recovered groups on the (SA) measure and its four pivots were calculated to see which pivots were more common among the sample of the study. (Tables 8 and 9)

Table 8: means, SD and proportional weight of the scores of the recovered group on the (SA) measure

Measure	Pivots	No. of items	Total	Means	Standard	Proportional	Proportional
			score		deviation	weight	Significance
Social	Rejection	9	45	27.17	5.28	60.38%	2
aversion	Negligence	6	30	17.22	3.89	57.57%	4
(SA)	Hyper-	15	75	43.91	8.36	58.55%	3
	sensitivity						
	Moral	7	35	22.16	4.69	63.31%	1
	aversion						

Table (8) shows that the first common and influential factor leading to (SA) for the recovered group was "moral aversion". "Community rejection" came in the second rank, followed by "hypersensitivity" then "negligence".

Table 9: means, SD and proportional weight of the scores of the infected group on the (SA) measure

Measure	Pivots	No. of items	Total score	Means	Standard	Proportional	Proportional
					deviation	weight	Significance
Social	Rejection	9	45	26.96	4.85	59.91%	2
aversion	Negligence	6	30	17.78	3.51	59.27%	4
(SA)	Hyper-	15	75	44.55	8.54	59.40%	3
	sensitivity						
	Moral	7	35	21.81	4.27	62.31	1



Data in table 9) indicates the same order of the factors leading to (SA) for the infected group as the recovered group: "moral aversion". "Community rejection", "hypersensitivity" and "negligence".

2- Sub-question Two: The mean scores, standard deviation, and proportional weight of the scores of both the infected and recovered groups on the (BB) measure and its four pivots were calculated to see which pivots were more common among the sample of the study. (Tables: 10 and 11)

Table 10: means, SD and proportional weight of the scores of the recovered group on the (BB) measure

Measure	Pivots	No. of items	Total score	Means	Standard	Proportional	Proportional
					deviation	weight	Significance
Bullying	verbal bullying	10	50	28.94	6.84	57.88%	3
behavior	physical	11	55	31.80	6.83	57.82%	4
(BB)	bullying						
	social bullying	7	35	21.23	5.37	60.66%	2
	Psychological	10	50	30.47	6.35	60.94%	1
	bullying						

Data in table (10) indicates the following order of the types of bullying in terms of their commonness and effect on the recovered group: Psychological bullying, social bullying, verbal bullying, and finally physical bullying.

Table 11: means, SD and proportional weight of the scores of the infected group on the (BB) measure

Measure	Pivots	No. of items	Total score	Means	Standard	Proportional	Proportional
					deviation	weight	Significance
Bullying	verbal bullying	10	50	24.76	7.50	49.52 %	2
behavior	physical	11	55	26.78	8.53	48.69 %	3
(BB)	bullying						
	social bullying	7	35	16.52	6.60	47.20 %	4
	Psychological	10	50	24.82	7.12	49.64 %	1
	bullying						

Data in table 11 shows the following order of bullying types for the infected group: Psychological, verbal, physical and finally social bullying.

3- Results answering sub-question three:" the t- test was conducted to compare the scores of the both the infected and the recovered groups on the social aversion (SA) measure. (Table: 12)

Table 12: means. SD and t. values of the scores of the two groups on the (SA) measure

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Pivots	Recover	ed group (no.109)	Inf	ected group	t. value	Significance
				(no. 101)		
	Means	Standard deviation	Mean	Standard deviation		
Community refusal	27.17	5.28	26.96	4.85	0.30	No significance
Negligence	17.27	3.89	17.78	3.51	-0.98	No significance
Hypersensitivity	43.91	8.36	44.55	8.54	-0.55	No significance
Moral aversion	22.16 4.69		21.81	4.27	0.55	No significance
Total score	110.51	16.84	111.11	15.78	-0.26	No significance

Data in table (12) shows no significant differences between the scores of the two groups on the (SA) measure or any of its pivots.

4- Results of sub-question four: the means, standard deviation and t-test were calculated to compare the scores of the infected group and the recovered groups on the (BB) measure. (Table 13)

Table 13: means, SD and t. values of the scores of the two groups on the (BB) measure

Table 13. means, 5D and i. varies of the secres of the two groups on the (BB) measure							
Pivots	Recovered group (no.109)		Infected group		t. value	Significance	
			(no. 101)				
	Means	Standard	Means	Standard			
		deviation		deviation			
Verbal	28.94	6.84	24.76	7.50	3.77**	Significant at 0.01 level in favor of the recovered group	



	Physical	31.80	6.83	26.78	8.53	4.72**	Significant at 0.01 level in
							favor of the recovered group
	Social	21.23	5.37	16.52	6.60	5.68**	Significant at 0.01 level in
							favor of the recovered group
Ī	Psychological	30.47	6.35	24.82	7.12	6.07**	Significant at 0.01 level in
							favor of the recovered group
Ī	Total score	111.99	19.21	92.89	27.05	5.93**	Significant at 0.01 level in
		111.99	19.21	94.89			favor of the recovered group

The results of the t-test showed that there were significant differences between the scores of the two groups at the 0.01 level in the total score of the (BB) measure and in all its pivots in favor of the recovered group.

5- Results of sub-question five: The t-test was conducted to identify the differences between the infected and the recovered groups on the Social and Psychological Adjustment measure (S& PA). (Table 14)

Table 14: means, SD and t. values of the scores of the two groups on the (S & P A) measure

Pivots	Recovered group		Infected group		t. value	Significance
	Means	Standard	Means	Standard		
		deviation		deviation		
Psychological	31.61	5.68	29.61	5.78	2.53**	Significance at 0.01 level in
						favor of recovered group
Health	17.37	2.68	16.67	2.86	1.81*	Significance at 0.05 level in
	17.37	2.06	10.07	2.00	1.61	favor of recovered group
Social	15.12	3.96	14.63	3.88	0.89	No significance
Behavioral	18.00	3.46	17.54	3.34	0.97	No significance
Family	9.38	2.66	9.20	2.57	0.52	No significance
Total score	91.49	14.35	87.66	14.02	1.95*	Significance at 0.05 level in
	91.49	14.33	07.00	14.02	1.93	favor of recovered group

Data in table 14 shows the following results:

- a. There are statistically significant differences at the 0.01 level between the mean scores of the infected and the recovered groups on the psychological adjustment pivot, while there were differences at the 0.05 level between the two groups on the health adjustment pivot and on the total scores of the (S & P A) measure in favor of the recovered group.
- b. There were no significant differences between the two groups on the social, behavioral, and family pivots.

6 Discussion

- 1. Results showed a significant positive correlation between social and psychological adjustment (S&PA) and social aversion (SA) for both the infected and recovered groups. These results coincide with the results of, and which affirmed that social aversion led to psychological disturbance and mal-adjustment and hence to major physical problems. Furthermore, the results of [24] revealed that those infected of corona virus were abandoned by their families and acquaintances. This led to poor psychological and social adjustment. However, these results differed from the results of [25]. They found out that the infected people used to intentionally hide their infection from their families and friends lest they should be abandoned by them. Also, [26] revealed that the infected people cared more for their remedy and health, so they used to announce their infection to their acquaintances not caring about being rejected by others. This could be because the infected and even the recovered people become badly in need for social support to fulfil their secondary psychological needs. Losing this kind of support leads to withdrawal and separation from their community which is a trait of social and psychological maladjustment.
- 2. Results also showed that there was a significant positive correlation between bullying behavior (BB) and (S&PA) for the recovered group. These results agree with results of the studies. They ensured that victims were liable to intended and recurrent psychological abuse in different forms such as giving frequent embarrassing comments, telling rum ours about them, exclusion, and repulsion through social media. The present study found out that verbal and visual harassment were the most prevailing forms of bullying. Among the main reasons behind bullying are low self-esteem and psychological and family disturbances that the bullies suffer from. Bullies themselves might also be victims of bullying. So, bullying is expected from them and is an indication of the bullies' social and psychological maladjustment.
- 3. There was no significant correlation between (S & P A) and (BB) for the infected group. This result agrees with the findings of [27]. However, it differed from those of [28] and [29] who found significant correlation between (BB) and



psychological disturbance for the infected people. Moreover, [30] found out that psychological and social mal adjustment of infected people resulted from bullying behaviors as 20-40 % of the victims were liable to group bullying. Also, revealed that the infected people were liable to verbal and social bullying that led to their mal adjustment.

- 4. Results of the sub-question One: Results showed that the most common and influential social aversion pivot on the social and psychological adjustment of both the infected and recovered groups was moral aversion followed by community rejection, hypersensitivity, and negligence). Moral aversion came first in the list because the infected or the recovered from the disease usually go under stress and anxiety and they become badly in need for help and support by others. So, it would be most painful for them to be treated with humiliation, insult, and anger; to hear lies about them by others, to be verbally or physically hurt. These immoral behaviors negatively affect peoples' personalities and behaviors and decrease their abilities to positively interact with the people around them.
- 5. Results of the sub-question Two: Results showed that the most common and influential type of bullying on both the infected and the recovered groups was the psychological bullying. Social bullying came in the second rank for the recovered group while verbal bullying came second for the infected group. The least common and influential type of bullying for the infected group was social bullying but it was physical bullying for the recovered group. The negative effects of bullying on the infected people persisted for a long time as they continued to suffer months after recovering from the disease. These results were consistent with those of a study by [31] which found out that 44% of the recovered people were liable to all types of bullying from family members and friends. The researcher sees that young people addiction to the internet and social media led to several social problems such as depression, seclusion, withdrawal, passive aggression, refusing parental guidance and perhaps bullying. So, it was clear in the results of the study by [32]. that infected and recovered students were liable to all types of bullying especially the verbal one, such as telling stories or rumors about them, either directly or indirectly through social media.

1. Results of sub-question Three:

Results showed no significant differences between the total scores of both the infected and the recovered groups on (SA) measure and all its pivots. This indicates not only the infected, but also the recovered from the corona disease continued to suffer from the negative effects of social aversion and hence from maladjustment. It also reveals that there is a relationship between social aversion and depression, anxiety, and maladjustment which in turn increases the cortisol hormone on the long run.

2. Results of sub-question Four:

Results showed significant correlation between social and psychological adjustment (S & P A) and bullying with all its pivots. This agrees with the results of a study by [33]. He revealed that 35% of his sample were liable to bullying through the chatting rooms, 23% through emails and 41% through text messages on their phones. These results ensure that electronic bullying has become very common with the spread of the multiple social media, and they were passively used during the corona pandemic.

3. Results of sub-question Five:

Results showed significant differences between the infected and the recovered groups on the social and psychological adjustment measure and two of its pivots (psychological and health adjustment) in favor of the recovered group. These results agree with those of [34]. This could be because the recovered people might have less stress and anxiety and develop more psychological relief and security.

There was also correlation between bullying and social aversion in their effect on the social and psychological adjustment of the infected and recovered people. This is because bullying is considered one form of the aggressive behaviors that purposefully hurt people when it is recurrent and intentional. So, the researcher suggests developing behavior-modification programs for school and university students that aim at training them on the skills of social and psychological adjustment, developing their self-esteem and providing them with psychological support.

7 Conclusion

The present study raised a significant issue concerning the recent pandemic of corona virus and its social and psychological consequences. It tried to find out the relationship between both social aversion and bullying variables and the social and psychological adjustment of the infected student with corona virus and the recovered from this disease. Results approved this hypothesis. Social aversion was significantly correlated with adjustment for the infected and the recovered groups. But bullying was correlated to adjustment of the recovered group, and not of the infected group. Immoral behaviors were the most influential variable on the adjustment of the infected and the recovered students. Psychological bullying also had the most effect on students' social adjustment. Bullying and social aversion proved to create social and psychological



disturbances such as stress, alienation, loneliness, and depression. To overcome these problems, the researcher suggests doing More research to study the (SA) phenomenon from different perspectives. She also suggests developing counselling programs for helping people who suffer from the psychological negative effects of (SA) and (BB) and developing programs for always promoting public health awareness and not only in times of crises.

8 Recommendations

- Establishing counselling units to help people in tackling the psycho-logical, social, financial, and academic crises resulting from the corona pandemic.
- Giving more concern to psychological and social counselling for overcoming the problems of (SA) and (BB), encountered by the infected and the recovered people.
- There is a need for information and educational institutes to help in forming positive values and attitudes towards home quarantine and to present entertainment programs that support people's psychological status.
- It is necessary to establish formal web pages for psychiatrists to help people face the problems resulting from crises and pandemics through social media.

References

- [1] AlSadik, T. The Level of Anxiety Towards Death at the Time of Corona Pandemic in Light of Some Variables in the Iraqi Society, Wasit University. *Journal of the Faculty of Education*, **39**, 347-366, (2020).
- [2] Abbas, M. The Role of Community Services in Tackling Social Aversion of Adolescents. Girls' College, Baghdad University. *Journal of Educational and Psychological Research*, **56**, 460-834, (2018).
- [3] Sukalova, V. psychological aspects of contract in sustainable human capital management. Economic and Social Development (Book of Proceedings), 52nd International Scientific Conference on Economic and Social Development, (2020).
- [4] Choi, T. Innovative "bring-service-near-your-home" operations under coronavirus (COVID-19/SARS-CoV-2) outbreak: Can logistics become the messiah? Transportation Research Part E: Logistics and Transportation Review, vol. 140, 38-61, (2020).
- [5] Jajodia, A., Ebner, L., Heidinger, B., Chaturvedi, A.& Prosch, H. Imaging in corona virus disease, A scoping review. *European Journal of Radiology*, 7(9). 237-264, (2020).
- [6] AlShehabi, E., AlWahibia, Kh. & AlShabibia, A. The Effect of the Anxiety Level of the Omani and Bahraini Families at the time of Corona Virus (Covid-19) and its Relationship to some Demographic Variables, Sultan Kabous University. *Journal of Educational and Psychological Studies [JEPS]*, **15**, 219-234, (2021).
- [7] Sean, R., Valentine, Sheila. K, Hanson, Gary. M. Fleischman. The Presence of Ethics Codes and Employees' Internal Locus of Control Social Aversion/Malevolence, and Ethical Judgment of Incivility A Study of Smaller Organizations. *Journal of Business Ethics*, **14**, 657–674, (2020).
- [8] Kriegmair, M. C., Kowalewski, K. F., Lange, B., Speck, T., Haas, H. & Michel, M. Urologie in der corona-virus-pandemic. *Journal of Leitfaden*, **59**, 442-479, (2020).
- [9] Feng, W., Zhang, L., Li, J., Wei, T., Peng, T. & Zhang. T. Analysis of special health service for corona virus disease 2019 (COVID-19) pneumonia. *Journal of Peking University*. Health Sciences, **52**, 302-332, (2020).
- [10] Guangxiang, G. L. Special Issue on New coronavirus (2019-nCoV or SARS- CoV-2) and the outbreak of the respiratory illness (COVID-19). *Journal of Medical Virology*, **92**, 20-33, (2021).
- [11] Lamoreaux, D. & Sulkowski, M. L. An alternative to fortified schools: Using crime prevention through environmental design (CPTED) to balance student safety and psychological well-being. *Journal of Psychology*, **57**, 152-165, (2020).



- [12] Spiller, A. D. The impact of accelerated reader on student achievement, reading comprehension, growth, and motivation to read, Doctor of Education, Trevecca Nazarene University, (2020).
- [13] Valentine, SR., Hanson, SK. & Fleischman, GM. Effects of 2-bromoterguride, a dopamine D 2 receptor partial agonist, on cognitive dysfunction and social aversion. Psychopharmacology, Berlin, Germany, 1, 235-242, (2019).
- [14] Smith, F. M., Siril, H., Larson, E., Aloyce, Z. & Araya, R. Healthy options: Study protocol and baseline characteristics for a cluster randomized controlled trial of group. psychotherapy for perinatal women living with HIV and depression in Tanzania. BMC Public Health, 20, 80-101, (2020).
- [15] Caputo, L., Reguilon, M. D., Mińarro, J., De Feo, V., & Rodriguez-Arias, M. counteract social aversion induced by social defeat. Psychopharmacology, Switzerland, 23, 2672-2694, (2020).
- [16] Xu, K., Cai, H., Shen, Y., Ni, Q., Chen, Y., Hu, S. & Li, L. Management of corona virus disease-19 (COVID-19): The Zhejiang experience. *Journal of Zhejiang University*. Medical Sciences, **4**, 1-23, (2020).
- [17] Megbel, M. Psychological Adjustment and the power of Ego and Some Other Variables. MA thesis, Islamic University in Gaza, (2010).
- [18] Yin, Q., Sun, Z., Liu, T., Ni, X., Deng, X. & Jia, Y. Posttraumatic stress symptoms of health care workers during the corona virus disease 2019 (COVID-19). *Clinical Psychology & Psychotherapy*, **10**, 2477-2492, (2020).
- [19] Al Zahrani, N. The Relationship Between Family Compatibility and Electronic Bullying for Kids. PhD Thesis, Faculty of Emirates for Educational Sciences, (2019).
- [20] Saud, M. The Effect of Electronic Bullying on the Intellectual Security of Adolescents of Special Needs. MA Thesis, Tabouk University, (2019).
- [21] Darnouni, H. The State of Bullying in the University Administration. *Journal of Mohamed Khaidar University*, *Baskara*, **4**, 359-372, (2017).
- [22] Zahran, H. Mental Health and Psychotherapy (2nd. Ed), The World of Books, Cairo, 53-62, (2017).
- [23] AlShazly, A. Mental Health and The Psychology of Personality, University Library, Alexandria, 55-78, (2001).
- [24] Burns, L. D., Faris, A., Melino, F., Turner, W., & Wheatley, A. Creating conditions for literate engagement: Teaching, learning, and acting in the world. *Journal of Adolescent* Adult Literacy, 63, 201-208, (2019).
- [25] Francis, M. K., Wormington, S. V. & Hulleman, C. The costs of online learning: Examining differences in motivation and academic outcomes in online and face-to-face community college developmental mathematics courses. Frontiers in Psychology, 10, 187-205, (2019).
- [26] Hou, C., Chen, J., Zhou, Y. & Yuan, J. The effectiveness of quarantine of Wuhan city against the (COVID-19) A well-mixed SEIR model analysis. *Journal of Medical Virology*, **10**, 827-862, (2020).
- [27] Al-Rabiaah, A., Temsah, M., Al-Eyadhy, A. A., Hasan, G. M.& Al-Zamil, F. Middle East respiratory syndrome-corona virus (MERS-CoV) associated stress among medical students at a university teaching hospital in Saudi Arabi. *Journal of Infection and Public Health*, 13, 16-32, (2020).
- [28] El Harary, H., Salimi, A., Diab, N. & Smith, L. Bibliometric analysis of Early COVID- 19 research. Infectious Diseases: Research and Treatment, vol. 13, 1-5, (2020).
- [29] Peng, Q., Wang, X., Zhang, L. & Chinese Critical Care Ultrasound Study Group (CCUSG). Findings of lung ultrasonography of novel corona virus pneumonia during the 2019- 2020 epidemic. Intensive Care Medicine, 46, 849-880, (2020).



- [30] Yayuan, w. & Grace, y. Estimation of the basic reproduction number, average incubation time, asymptomatic infection rate, and case fatality rate for COVID-19: Meta-analysis and sensitivity analysis. *Journal of Medical Virology's*, **9**, 26-41, (2020).
- [31] Hasan, D. Psychometric Traits of the Bullying Behaviors Measure for Seventh Grade Pupils. *Journal of Faculty of Education*, Ain Shams University, **23**, 231-259, (2019).
- [32] Vause, J., Baer, B. & Kiley, S. Most states across U.S. are moving toward reopening; U.S. wants allies to join pressure "corona" in the U.S COVID patients. A. Atlanta. *Journal of Illness*, 7, 42-61, (2020).
- [33] Cross, G. Evaluating poverty alleviation strategies in a developing country. *Educational and Social Science Journal*, **15**, 2148-2153, (2009).
- [34] Briggs, D. Corona virus (COVID 19) Asia Pacific. Journal of Health Management, 15, 2-34, (2020).