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КОВИД-19 УЗУН МӨӨНӨТТҮҮ ТААСИРЛЕРИ ЖАШ ЖАШТАГЫ ПСИХОЛО-ГИЯЛЫК АБАЛЫ ЖӨНҮНДӨ

ДОЛГОСРОЧНЫЕ ПОСЛЕДСТВИЯ КОВИД-19 О ПСИХОЛОГИЧЕСКОМ СО-СТОЯНИИ В МОЛОДОМ ВОЗРАСТЕ

LONG-TERM CONSEQUENCES OF COVID-19 ON PSYCHOLOGICAL STATE AT A YOUNG AGE

Аннотациясы: Коомдун бардык секторлоруна таасирин тийгизген жана жашоону жана жашоо каражаттарын өзгөрткөн COVID-19 пандемиясынын учурунда дүйнө глобалдык саламаттык кризисине туш болууда. Мониторинг көрсөткөндөй, COVID-19 пандемиясы бүтүндөй коом үчүн гана эмес, психикалык ден соолук үчүн, өзгөчө жаш курактагы узак мөөнөттүү социалдык жана экономикалык кесепеттерге алып келет [1]. Биз катышуучунун тынчсыздануу деңгээлин баалоо үчүн GAD-7 тынчсыздануу шкаласын колдондук. Маалыматтарды чогултуу сурамжылоо техникасы менен камсыздалган. Маалыматтарды талдоодо өзгөрмөлүү мамилелерди издөө үчүн корреляция колдонулган, орточо салыштыруулар үчүн көз карандысыз (t) тести жана параметрлик эмес анализдер үчүн Хи-квадрат тесттери колдонулган. Изилдөөнүн максаты – COVID-19 жана карантиндин жаштардын психологиялык абалына тийгизген таасирин аныктоо, өзгөчө чет өлкөдө жашагандар.

Негизги сөздөр: COVID-19, психикалык ден соолук, пандемия, COVID психологиялык таасири, COVID психосоциалдык таасири, депрессия, тынчсыздануу, жаштар.

Аннотация: Мир сталкивается с глобальным кризисом в области здравоохранения во время пандемии КОВИД-19, которая затронула все слои общества и изменила жизнь и средства к существованию. Как показывает мониторинг, пандемия КОВИД-19 будет иметь долгосрочные не только социальные и экономические последствия для всего общества, но и для психического здоровья, особенно в молодом возрасте [1]. Мы использовали шкалу тревожности GAD-7 для оценки уровня тревожности участников. Сбор данных осуществлялся методом опроса. Корреляция использовалась для поиска взаимосвязи переменных в анализе данных, независимый критерий (t) использовался для сравнения средних значений, а критерий хи-квадрат использовался для непараметрического анализа. Цель исследования – определить влияние КОВИД-19 и карантина на психологическое состояние молодых людей, особенно тех, кто проживает за границей.

Ключевые слова: КОВИД-19, душевное здоровье, пандемия, психологическое воздействие КОВИД, психосоциальное воздействие КОВИД, депрессия, тревога, молодежь.

Abstract: The world is facing a global health crisis during the COVID-19 pandemic that has affected all sectors of society and has changed lives and livelihoods. As monitoring shows, the COVID-19 pandemic will have long-term not only social and economic consequences for the whole society, but also on mental health, especially at a young age [1]. We used GAD-7 anxiety scale to evaluate participant's anxiety level. Data collection was provided by survey technique. Correlation was used to search for variable relationship in data analysis, the independent (t) test was used for mean comparisons, and the Chi-square tests were used for non-parametric analyses. Purpose of study is to determine the COVID-19 and quarantine impact on the psychological state of young people especially those who live in foreign country.

Keywords: COVID-19, mental health, pandemic, COVID psychological impact, COVID psychosocial impact, depression, anxiety, young people.

Introduction: There has been a notable increase in virus outbreaks in the 21st century, with the COVID-19 pandemic being a significant example. Originating in Wuhan, China, the virus quickly spread globally and was declared a pandemic [8]. To combat its spread, lockdowns and physical distancing measures were implemented, causing widespread concern and a sense of threat. Many COVID-19 patients have exhibited symptoms of post-traumatic stress disorder (PTSD), especially among foreign students who may experience additional mental health challenges due to being away from their home country and loved ones [1]. Certain groups, such as young people faced with school closures, have been particularly susceptible to feelings of anxiety, loneliness, and behavioral problems stemming from social isolation. [13] Disrupted sleep patterns have also been observed, despite sleep being a natural healer for the body, as the fear of contracting the virus has deterred people from seeking help or visiting hospitals for therapy.

Mental health, an essential aspect of overall well-being, has been significantly affected by the pandemic[5], leading to a range of issues such as anxiety, panic disorder, depression, and even suicidal thoughts and behaviors, including among healthcare workers[6]. This review aims to emphasize the psychological impact on the general population and identify associated risk factors contributing to the exacerbation of mental health problems [4].

Material and Method: This study is applied on medical students from Pakistan were interviewed, living in a university dormitory and staying in Kyrgyzstan during the quarantine. A total of 110 (50 COVID-19; 50 non-COVID-19) students aged 19 to 25 were surveyed. The students are divided into two groups: group 1 – those who survived COVID-19 and group – 2, who had no symptoms of COVID-19.We used GAD-7, a questionnaire designed to quickly assess the presence of anxiety. GAD-7 is an internationally accepted questionnaire consisting of 7 questions, reliability and validity, to provide the diagnosis of anxiety disorder. This was applied a door-to-door survey conducted with the full consent of the participating students. The survey takes approximately 30 minutes.

In this survey people are asked about their clarity of mind, anxiety, fear of COVID-19, amount of sleep they have during and after COVID-19, how they live alone during quarantine, their daily household activities. Statistic: first we show variable's descriptive data values (mean, median, min-max, standard deviation SD, and variance). Second, we applied normality tests (histogram, skewness,curtosis,shaphiro-wilk test Q-Q graphic) for age, gender, groups and test score distributions. Independent t-test was used to analyze the anxiety mean score difference between COVID 19 and non COVID 19 groups and gender groups. We was applied one way anova for analysis more than two independent quantitative variables differences, we used the Chi-square test as a non-parametric test for qualitative data differences analysis. The results were evaluated at the 95% confidence interval, $P < 0.05$ level were used for significant meaning. We analyzed variables data by Statistical Package for Social Sciences (SPSS) version 23.

Variables			test propuses
analysis no independent variable	dependent variable		group difference
test 1.Groups (covid-19 and non covid-19) and	anxiety total scores		indepen.(t)test
test 2. Gender group female-male	and "	"	"
test3. age group 19-21 and 22-24	and "	"	"
test 4. Groups (covid-19 and non covid-19) and	scale score cutoff 8 Clinic under- above		chi-square test
test 5. Groups (covid-19 and non covid-19) and	scale score three cutoff mild-moderate-high, chi-square		
test 6. age group 19-21 and 22-24	and	scale score cutoff under- above	chi-square test
test 7. age group 19-21 and 22-24	and	scale score three cutoff mild-moderate-high, chi-square	
test 8. Gender group female-male	and	scale score cutoff under- above	chi-square test
test 9 .Gender group female-male	and	scale score three cutoff mild-moderate-high,chi-square	
test 10, GAD-7 Subcategories(two cutoff) (n) numerices differences test			chi-square homogenety test
test 11, GAD-7 Subcategories(three cutoff) (n) numerices differences test			chi-square homogenety test

Result:

Participants

COVID-19 and non_COVID-19 groups (n)	Age groups	Gender	Cutoff two group (Clinic Cutoff)	Cutoff three group
A COVID-groups 55 50%	19-21 age 80 72.7%	Female 55 50%	Under Catoff 8 A=18 (B17) T=35 Abovecutoff 8 A=37 (B38) T=75 Total 55	Mild Anxiety cutoff 0-9 Moderate cutoff 10-14 High anxiety cutoff 15-21
B non-COVID-19 groups 55 50%	22-24 age 30 27.3%	Male 55 50%	Under Cutoff 8 B=17 (A18) T=35 Abovecutoff 8 B=38 (A37) T=75 Totaly 55	Mild Anxiety cutoff 0-9 Moderate cutoff 10-14 Highanxiety cutoff 15-21
Totaly 110 100%	110 100%	110 100%	110 100%	110 100%

Table: 3 Descriptive data of totally and COVID-19 -nonCOVID-19 groups

Participant	mean	Std Error	Std Deviation	Median	Minimum	maximum
Total	11.2818	0.55433	5.81383	10.0000	00	21.00
A COVID 19 group	10.8727	0.79521	5.89744	10.0000	00	21.00
B non Covid 19 group	11.6909	0.77584	5.75382	10.0000	5.00	21.00

Participants totally and both (A, B) groups descriptive values

Variables descriptive results and normality test results has given at table 1

Correlations

			group	age groups	gender	total number	Depresivetwo	cutoff_3factor
Spearman's rho	group	Correlation Coefficient	1,000	-,204[*]	-,127	,059	,000	,009
		Sig. (2-tailed)	.	,032	,185	,539	1,000	,926
		N	110	110	110	110	110	110
	age_groups	Correlation Coefficient	-,204[*]	1,000	,041	,107	,089	,046
		Sig. (2-tailed)	,032	.	,672	,267	,354	,634
		N	110	110	110	110	110	110

gender	Correlation Coefficient	-,127	,041	1,000	-,021	-,036	-,032
	Sig. (2-tailed)	,185	,672	.	,825	,706	,738
	N	110	110	110	110	110	110
totalnumber	Correlation Coefficient	,059	,107	-,021	1,000	,868**	,927**
	Sig. (2-tailed)	,539	,267	,825	.	,000	,000
	N	110	110	110	110	110	110
Depresivetwo	Correlation Coefficient	,000	,089	-,036	,868**	1,000	,936**
	Sig. (2-tailed)	1,000	,354	,706	,000	.	,000
	N	110	110	110	110	110	110
cutoff_3factor	Correlation Coefficient	,009	,046	-,032	,927**	,936**	1,000
	Sig. (2-tailed)	,926	,634	,738	,000	,000	.
	N	110	110	110	110	110	110

*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).
 Cause of spearman result only between COVID-19 groups and age groups are seen significant relationship. r =-.204   P=0.032 (<0.05).
Comparison test results...variables data are normality distributions depends on variance, skew-ness-kurtosis, and normality Q-Q Pylot.

Test: 1. COVID-19, non-COVID-19 groups and GAD-7 total score number independent (t) test result

Group Statistics

	group	N	Mean	Std. Deviation	Std. Error Mean	Sign(2. tailed)
totalnumber A		55	10,8727	5,89744	,79521	t = -,736 P=-,463 (>0,05)
B		55	11,6909	5,75382	,77584	

We found that, there were not any anxiety total values significant differences between two   (A and B) groups.

Table: 3 gender and anxiety score numbers independent (t) test result
Group Statistics

	gender	N	Mean	Std. Deviation	Std. Error Mean	Sign (2.tald)
totalnumber F		55	11,4000	6,12100	,82536	t= .212 P=,832(>0.05)t
M		55	11,1636	5,54364	,74750	

There were not any anxiety significant differences between gender and total anxiety. ..number.

Table: 4 age groups and anxiety score numbers independent (t) test result

Group Statistics

	age groups	N	Mean	Std. Deviation	Std. Error Mean	Sign (two tailed)
total number	1,00	80	11,0500	6,05230	,67667	T=-.681 p=.497 (>0.05)
	2,00	30	11,9000	5,16854	,94364	

There are not significant differences between gender's anxiety score
COVID-19 and non COVID-19 cutoff 8 clinic under and above corporation Chi-square.

As a result there is not any significant relation between A and B groups with clinic cutoff8 scores chi-square=0.042 sign= 0.838 P>0.05, However, GAD-7 cutoff clinic8 two group U(under and above)analysis show that both groups chi-square homogeneity test was performed significant relationship(differences). On values spanning both groups, 35 participants (31.81) remained below the cutoff8 clinical level. On the other hand, a total of 75 participants increased to 68.18% cutoff 8 and above.chi-square test result showed that there was a significant difference between the data at both levels (cutoff 8)

Chi-square value: 14.545 "p<0.000

Table: 6

clinic_cutoff1

	Observed N	Expected N	Residual
1,00	35	55,0	-20,0
2,00	75	55,0	20,0
Total	110		

Test Statistics

	clinic_cutoff1
Chi-Square	14,545[a]
Df	1
Asymp. Sig.	,000

We divided GAD-7 totaly scores three cutoff subgroups. Low-9 mild anxiety group: 10-14 moderate anxiety group and 21- above high anxiety group. We calculated the relationship between sub-anxiety groups and COVID -19 affected and non COVID-19 affected (A, B) groups. As a result, there is not any significant relationship between (A, B) and scale cutoff sub-groups chi =0.072 sign=0.965 P>0.05

As a same, there is not significant relationship between sub- cutoff anxieties groups and age and gender groups. For age: chi-square=2.135 sign=0,344 P> 0.05; for gender: chi square= 0.149, sign=0.928.

Descriptive

total number

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
1,00	52	6,3654	2,14228	,29708	5,7690	6,9618	,00	9,00
2,00	23	11,0000	,73855	,15400	10,6806	11,3194	10,00	12,00
3,00	35	18,7714	2,52150	,42621	17,9053	19,6376	15,00	21,00
Total	110	11,2818	5,81383	,55433	10,1832	12,3805	,00	21,00

Test Statistics

	cutoff_3factor
Chi-Square	11,582[a]
df	2
Asymp. Sig.	,003

a. 0 cells (0,0%) have expected frequencies less than 5. The minimum expected cell frequency
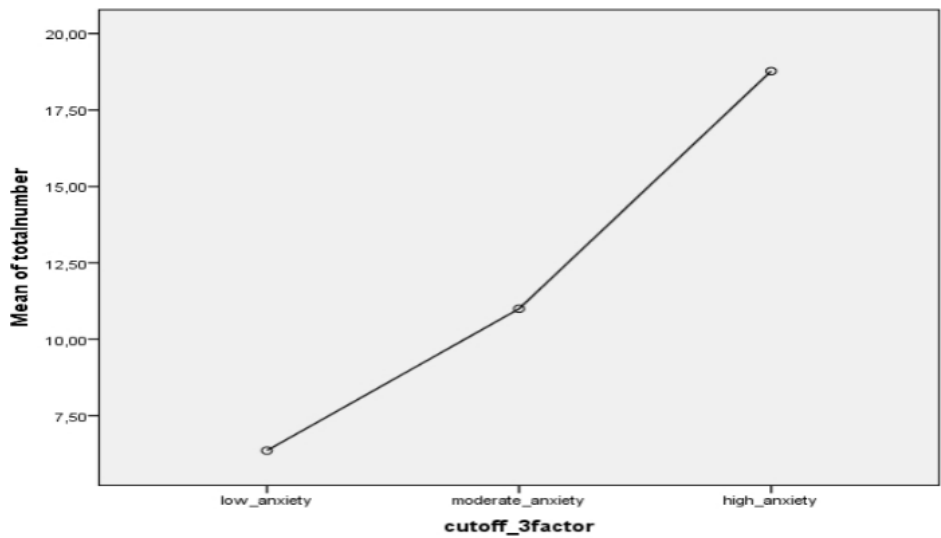
Discussion: As a statically result we found that there are not anxiety differences between effected cavid-19 and non-COVID- 19 groups total scores at quarantine groups. But, more participants in both groups anxiety level were higher than normality. There are many studies which reported quarantine effect on and increase anxiety level of the subjects [1.2.3.4.6] .But all these studies is applied on with and without quarantined participants. It was different from our study but, to found high level of anxiety was similar. All these studies are applied on individuals of different ages, participant number and social life positions, the common view that they all meet is that the quarantine practice in the COVID-19 period negatively effect on the anxiety state. We compared both groups scale scores cutoff 8 clinical degree. There weren't any differ Under and above cutoff 8 clinical value between groups, However, when we compared the participants' total

score as below and above the cutoff8 clinical score, the proportion of those above the cutoff was quite high (31, 81 % and 68, 18%), On the other hand in our study anxiety scores between groups did not differ in terms of gender either. The some studies reported that gender effects on anxiety score as a differently. In a study conducted in China, it was reported that the anxiety level of men in quarantine was higher than those who were not in quarantine [7]. There may be some reasons for this difference, some of them are fact that the group we are working with is from the same country, as a foreign student status and is both group was in quarantine simulating the possible impact factors of the subject. We divided the ages of the participants into two groups since the ages of participants distributions were narrow range. There was a significant relationship correlation between groups and ages at the level of (r-.204) sign 0.032.But it doesn't mean that we found different anxiety level between both group. There are some studied reports on gender and age groups. One studied in japan there were participants in quarantine affected and non-affected patients, in this study reported that gender was not show differences, Ages groups range was to more from our study and in these study reported difference statistical result between some age groups [8] .We also applied cut-off (9 and below, 10-14 and 15-21) to the GAD-7 total scores of both groups. The three sub-categories was mild, moderate and severe anxiety. We couldn't use 0-5 cutoff in both groups since non COVID- 19 group has not any scores in this categories. There are some published articles reports groups differences. [9, 10] but these articles specialty are not same as our participant situations. We tested differences between sub anxiety categories (cutoff groups) scores, COVID -19- non COVID -19, gender and age groups, there weren't any significant relationship or difference. Apart from the comparison values, when the GAD-7 scale test total and Cutoff scores were examined, it was found that the totally and cutoff mean and median scores of anxiety were high in both groups. This result is in agreement with the reports of the anxiety effect of COVID-19 in individuals in previously published studies [10] .The reason why our study was conducted with face-to-face interviews in a quarantine environment is the reason why the number of subjects is limited compared to other studies and this is the reason of limitation of our study. In addition, in the groups compared in our study, other factors other than exposure and non-exposure to COVID-19 were not selected from participants living in different conditions and with different demographic characteristics. In this case, we can conclude that the high anxiety values in both groups are above the clinical cutoff and that COVID-19 has a negative impact on the anxiety level of the whole society. We determined that the homogeneity assessment of the sub-categories the GAD-7 cutoff on the anxiety data the participants was significantly different, So we can interpret that COVID-19 affected all participants at a different, but significant level of anxiety.

Conclusion : This study, in which foreign students in Kyrgyzstan participated, was planned and implemented to measure whether the anxiety level of young students affected and unaffected by an equal number of COVID-19 is different in one-month quarantine conditions. However, it was found that he showed a high level of anxiety in general. In this result, we can think that quarantine conditions bring the effect of anxiety closer, and that common factors such as living in a foreign country for all student participants reduce the possibility of different levels of being affected by COVID-19.

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