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A CROSS-SECTIONAL STUDY ON AGGRESSION AND QUALITY OF HEALTH DURING COVID-19 PANDEMIC IN KASHMIR

Rehana Amin* MD Psychiatry, Lecturer at IMHANS-Kashmir. *Corresponding Author

Mohammad Maqbool Dar Professor and Head Department of Psychiatry, GMC Srinagar.

ABSTRACT

Background: The present study was aimed to investigate the levels of aggression and its impact on the quality of life of healthy adults during times of COVID-19 Pandemic. **Methods**: The data was collected by an online survey conducted during COVID-19 Pandemic. During the survey a questionnaire of 65 questions was created on a goggle form and shared on social media platform to reach to the maximum of participants. The questionnaire comprised of sociodemographics, Buss Perry aggression questionnaire and WHO-BREF Quality of life questionnaire. The responses were collected and descriptive statistics was done. The average mean score and standard deviation of different variables have been calculated followed by the t-test and ANOVA to check the significance. The multiple regression analysis was performed to find the correlation across subscales of aggression and quality of life. **Results**: A total of 192 responses were received over a period of 5 months. It was found that aggression scores were more and quality of life scores were less when compared to the results of previous studies. A positive correlation was found between subscales of aggression and quality of life while as a negative correlation was found between aggression and quality of life. Verbal aggression was found to have a non-significant but positive correlation with physical and psychological quality of life. It was found that the major factors influencing the QOL were anger and hostility and can be considered as risk factor for ill health. **Conclusion:** Healthy adults often under look various forms of aggression. In order to avoid risk of compromising health it is recommended that a psychological help will help in dealing with anger without exposing the person to any kind of risk to his wellbeing.

INTRODUCTION

An individual goes through various transitions and encounters different forms of aggression in life (Liu, J., Lewis, G., & Evans, L. 2013). Aggression is said to be appropriate if self-protective and destructive when causes damage to self or others (Trappes-Lomax, H. 2007). Aggression is a most common symptom shared by mental disorders but it is often neglected when not associated with overt signs and symptoms of psychiatric illnesses (Elbogen, E. B., & Johnson, S. C. (2009). When aggression goes in excess can prove destructive and results in social maladjustment (Merrell, K.W., & Walker, H. M. 2004). Aggression is a risk factor for various medical problems (Yusuf, S., and et al. 2001). Aggression is considered to be a normal reaction of humans and can be provoked by any type of stressful situation like COVID-19 (Moreira, D. N., & da Costa, M. P. 2020). COVID-19 Pandemic, a socioeconomic crisis resulted in various psychological problems globally (Serafini, G., et al 2020). The aim of the present study was to investigate the impact of aggression levels on the quality of life (QoL) of healthy adults during times of COVID-19 Pandemic.

METHODS

Study rationale and design

To examine the hypothesis, an online survey was conducted during the lockdown period of the COVID-19 Pandemic. A Google form of 65 questions (9 questions asking about socio-demographic variables, 29 questions enquiring about aggression and 27 questions about quality of life) was created with a starting question about consent to participate in the survey. The hypothesis of the study was mentioned at the top of the survey page. The inclusion criteria's were that the participants with minimum of high school qualification so that they can easily understand the questionnaire with age between 18 to 55 years could participate in the study. There should be no history of psychiatric illness at the time of survey or in past and use of psychotropic medication for the same.

Measures

The Google form was shared on social media (Facebook, Watsapp, and Gmail). After fulfilling the inclusion criteria, the participants gave responses to questions about sociodemographic characteristics such as age, gender, employment, education, marital status, background, type of family, social support and socioeconomic status.

Instruments used

The further assessment of participants was done by using the instruments like Buss Perry aggression questionnaire (von Collani, G., & Werner, R. 2005) and WHO-BREF Quality of life questionnaire (Su, C.T., et al 2014). The Buss-Perry Aggression Questionnaire is a 29 item scale divided into 4 subscales to measure physical aggression (8items), verbal aggression (4items), anger (6items) and hostility (7items). Each item is scored on a 5 point Likert Scale (1=extremely characteristic to 5=extremely not characteristic). The Quality of Life was assessed by WHO-BREF. The scale has been developed from SF-36 to reduce the burden and has been validated in the general population and various subpopulations in a cross-sectional manner. It is a 26 item questionnaire. This form is designed to measure the quality of life among those with physical disease and psychiatric disorder, as well as among healthy subjects. The scale investigates four dimensions of health: Physical functioning, Psychological functioning, Social role functioning, and Environment functioning.

STATISTICAL ANALYSIS

The data was entered in SPSS.21 a software package of a comprehensive system for analysing data (International Business Machines Corporation Company). The descriptive statistics were used for various socio-demographic and clinical variables. The average mean score and standard deviation of different variables have been calculated followed by the t-test and ANOVA to check the significance.

RESULTS

Socio-demographic Data

A total of 192 healthy adults voluntarily participated in the online survey. The average age of the participants was 32.03±6.09 years. Out of 192, 60.41% were males and 39.58% were females, 51.56% were married and 48.43% were unmarried. Majority (85.41%) of the participants were graduates and postgraduates. The occupation of the participants were Government Employee, Private Employee/ Business/Daily Wagers and Homemaker/Students in the ratio of 1;0.62;0.51. Most of the participants were from Rural Background (62.5%, living in a nuclear family (59.37%) belonging to class II socioeconomic class (89.58%) with good social support (80.54%). The details are given in table 1

Table 1 Sociodemographic Characteristics Of Participants

Variable	N=192(%)
Mean Age (years)	32.03±6.09
Sex	
Male	116 (60.41)
Female	76 (39.58)
Marital status	
Married	99 (51.56)
Unmarried	93 (48.43)
Education	
10^{th}-12^{th}	12 (6.25)
Graduation- Postgraduation	164 (85.41)
Doctorate- Postdoctorate	16 (8.33)
Occupation	
Government Employee	90 (46.87)
Private Employee/Business/Daily Wagers	56 (29.16)
Unemployed/Homemaker/Students	46 (23.95)
Background	
Urban	72 (37.5)
Rural	120 (62.5)
Family	
Nuclear	114 (59.37)
Joint	78 (40.62)
Socioeconomic Class	
I	14 (7.29)
II	172 (89.58)
III	06 (3.12)
Social Support	
Poor	22 (11.45)
Good	170 (80.54)

Differences in subscale scores across various sociodemographic variables

The total aggression score was found more in males than females with a mean of 77.78, 71.0 and standard deviation of 20.35, 20.26 respectively. The t-value was found to be 2.3283, P-value of 0.02. The males also scored higher in physical and verbal aggression. However, there was no significant difference in anger, hostility and quality of life between genders. From this study, we found no significant difference in aggression and quality of life subscales across different occupations. Psychological quality of life was found less in joint families with a Mean±SD of 19.10±2.9 than nuclear families (20.38±3.0) and the difference was statistically significant (S=.004) From this study we did not find any significant difference in other subscale scores between two families. Physical aggression was found more in the married group with a Mean±SD of 20.68±8.4 than the unmarried group (18.30±7.1) and the difference was statistically significant (S=.036). the social quality of life was found less in the unmarried group with a Mean±SD of 10.10±1.9 than married group (10.96±2.3) and the difference was statistically significant (S=.006) From this study we did not find any significant difference in other subscale scores between the two marital groups. The participants from urban background scored higher in Anger (20.68±8.4), verbal (15.55±4.7) and total aggression (77.98±20.35) than rural group (18.30±7.1, 13.55±3.8, 71.00±20.26, respectively) and the difference was statistically significant (S=.036, .003, .021, respectively). From this study, we did not find any significant difference in other subscale scores between the two background groups (table 2)

Table 2 Differences in subscale scores across various sociodemographic variables

Variable	**Sex** Male (n=116); Female (n=76)	**Occupation** GOV.EMP (n=90) Self EMP (n=56) Homemaker (n=46)	**Family** Nuclear (n=114) Joint (n=78)	**Marital status** Married (n=99) Unmarried (n=93)	**Background** Urban (n=72) Rural (n=120)
Anger	19.62±6.5; 18.89±5.4	19.26±6.8; 20.07±5.7; 18.56±4.7	19.43±6.5; 19.17±5.4	19.78±6.8; 18.84±5.2	20.68±8.4; 18.30±7.1 t value= 2.109, p=**.036**
PHY AGG	21.22±8.1; 16.94±6.8 t value=-3.79, p=**.0001**	19.17±8.2; 21.17±7.8; 18.21±6.9	19.42±8.4; 19.69±7.0	20.68±8.4; 18.30±7.1 t value= 2.109, **p=.036**	19.42±8.4; 19.69±7.0
Hostility	21.58±6.3; 21.60±7.5 t value=-3.049, p=**.003**	21.11±7.3; 22.25±6.08; 21.73±6.8	21.17±7.0; 22.20±6.4	20.88±7.3; 22.34±6.2	21.58±6.3; 21.60±7.5
VER AGG	15.55±4.7; 13.55±3.8 t value=-2.329, p=**.021**	14.51±4.9; 15.39±4.0; 14.47±4.2	14.77±4.7; 14.74±4.2	15.55±4.7; 13.55±3.8 t value=-3.049, **p=.003**	15.55±4.7; 13.55±3.8
Total AGG	77.98±20.35; 71.00±20.26	74.06±21.6; 78.89±19.39; 73.0±19.59	74.80±21.74; 75.82±18.78	76.17±22.1; 74.20±18.7	77.98±20.35; 71.00±20.26 t value= -2.329, p=**.021**
Total QOL	87.62±11.12; 87.26±13.40	87.77±11.73; 86.96±9.9; 87.52±14.95	88.40±11.9; 86.12±12.17	88.44±11.7; 86.45±12.8	88.44±11.7; 86.45±12.8
PHY QOL	21.58±2.7; 21.18±4.2	21.28±4.1; 21.25±1.9; 21.91±3.3	21.47±3.1; 21.35±3.8	21.76±3.2; 21.06±3.6	21.76±3.2; 21.06±3.6
PSY QOL	20.06±3.0; 19.55±3.1	19.80±2.7; 20.03±2.5; 19.7±4.1	20.38±3.0; 19.10±2.9 t value=2.88, **p=.004**	20.16±2.6; 19.54±3.5	20.16±2.6; 19.54±3.5
SOC QOL	10.55±2.2; 10.55±2.0	10.71±2.1; 10.17±2.2; 10.69±2.1	10.45±2.2; 10.69±2.1	10.96±2.3; 10.10±1.9 t value= 2.774, **p=.006**	10.45±2.2; 10.69±2.1
ENV QOL	28.10±4.4; 28.42±5.1	28.33±4.0; 28.50±4.7; 27.69±5.9	28.63±4.6; 27.64±4.8	28.11±4.4; 28.35±5.1	28.11±4.4; 28.35±5.1

Correlation between aggression subscales and quality of life subscales

From this study, a positive and significant correlation between subscales of aggression and subscales of quality of life was found. The results also showed a negative and significant correlation between the aggression scale and the quality of life scale Table 3

Correlation between aggression subscales and quality of life subscales

Pearson correlation	A	PA	H	VA	TA	TQ	PQ	PSQ	SQ	EQ
Anger										
PHY AGG	.648**									
HOS	.509**	.521**								
VER AGG	.539**	.510**	.447*							
Total AGG	.834**	.863**	.783*	.726*						
Total QOL	-.399**	-.291**	-.382**	-.214**	-.405**					
PHY QOL	-.326**	-.314**	-.286**	-.060	-.326**	.803**				

PSY QOL	-.255**	-.061	-.238**	-.064	-.192**	.852**	.659**			
SOC QOL	-.313**	-.326**	-.417**	-.297**	-.423**	.711**	.526**	.468**		
ENV QOL	-.334**	-.218**	-.326**	-.250**	-.347**	.843**	.476**	.622**	.497**	

*Correlation is significant at the 0.05 level (2-tailed)
**Correlation is significant at the 0.01 level (2-tailed)

DISCUSSION

The present study investigated the various types of aggression and its impact on quality of life during times of COVID-19 Pandemic in healthy adults. The results pointed out that male had higher levels of verbal, physical and total aggression and is supported by most of the studies conducted before (Tapper, K., & Boulton, M. J. 2004). The participants from urban background had also reported higher levels of anger, verbal and total aggression. In a study by Miller, L. S., et al (1999) an association was witnessed between community violence and urban boys. Similarly, married population had higher levels of physical and verbal aggression which can be explained by increases levels of responsibilities and demands (Stets, J. E. 1990). The poor social quality of life in unmarried group and poor psychological quality of life in nuclear families could be explained by the fact that COVID-19 pandemic, lockdown, decreased social interactions, increased economic losses and lack of recreational activities had a direct impact on mental health of people (Every-Palmer, S., et al 2020) The Pearson's correlation test had detected a negative correlation between aggression and quality of life. The major determinants of various dimensions of quality of life were anger and hostility. The results are supported by other studies (Fantaguzzi, C., et al 2018). When compared with the previous studies; the levels of aggression were higher during pandemic which can be because of lockdown, COVID-apprehensions and economic crises (Killgore, W. D., et al 2021).

CONCLUSION

From above study we conclude that healthy adults who under look various forms of aggression for not having any psychiatric illness or need any sort of intervention or medication should involve in a psychological help that insists on ways of dealing with anger without exposing the person to any kind of risk for his health or wellbeing. For maintaining a good psychological and social health it is necessary to keep aggression under control by seeking immediate help from a mental health professional.

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