IOSR Journal Of Humanities And Social Science (IOSR-JHSS)
Volume 27, Issue 4, Series 3 (April. 2022) 37-44
e-ISSN: 2279-0837, p-ISSN: 2279-0845.
www.iosrjournals.org

Analyzing the Stress Anxiety and Depression with Quality of life in work from home and working from office professionals in COVID-19 lockdown.

Yachika Gaba[1], Shagun Agarwal[2],Amandeep Singh[3]

Abstract
Background: The day marks the beginning of many years in lockdown of COVID-19 pandemic where many professionals experience emotional distress during their working hours. This in turn reduces their efficacy and hampers their personal and professional lives.
Methods:: This study is conducted with the two groups working from home and working from office. Participation in the study was voluntary and an informed consent was obtained. The participating students were briefed about the purpose of the study and informed that their data would be safe and was guaranteed confidentiality. The Scale used to collect the data are: DASS-21; and Short Forms Scales: SF-36 and SF-12 for the Health-Related Quality of Life. The scales have been tested and found to possess excellent reliability, good validity and simple language.
Findings: Based on the DASS-21, moderately strong correlations have been found between the depressive and anxiety domains and the self-depression rating scale and the state trait anxiety scale.
Interpretation: It was found that Stress, Anxiety and Depression is significantly effective on the Health-Related Quality of Life (HRQOL). Future studies should include larger sample sizes, as demonstrated by the power analysis calculations, to allow for more advanced statistical analysis and further clarification of the efficacy of the psychological analysis in the different parameters of both the groups i.e., Working from Home and Working from Office.
Funding: There is no Funding sources are involved in the present study.
Keyword: Depression, Anxiety, Stress, Health-Related Quality of Life.

Date of Submission: 01-04-2022 Date of Acceptance: 10-04-2022

I. Introduction

A pandemic of the corona virus disease 2019 (COVID-19) was declared on March 11, 2020 which was preceded by a declaration of a public health emergency of international concern on January 30, 2020[1]. The first case of COVID-19 was reported in Wuhan, China in December 2019 which then spread around the world [2].

India is a densely populated country with a population of 1.3 billion people spread across diverse states having wide economic and social disparities, health inequalities, and distinct cultures that possess great challenge in this era of the COVID-19 pandemic[3]. The first COVID-19 case was reported in India on 30th January 2020. Taking a precautionary measure, India announced 'Janta Curfew' or lockdown from 7am to 9 pm on 22 March 2020 where people were urged to stay inside their homes However, during this period, the number of confirmed positive cases of COVID-19 reached around 500 and up to 10th May 2020 some 67,152 confirmed COVID cases and 2,206 deaths had been reported across the country[4]. India went into a lockdown 25th March 2020 to combat the spread of COVID-19 infections and reduce the pressure on healthcare systems [5]. Lockdown is an action when there are restrictions on assembly but essential services are available. Due to this lockdown, people are prohibited from going out, except for emergencies like to buy only necessary groceries or medical supplies [6].

The COVID-19 pandemic changed the daily routines of each individual worldwide in tandem with efforts to prevent and control the transmission of COVID-19[7]. The increasing trend of suspected and confirmed cases of COVID-19 required healthcare workers, particularly doctors, to be involved in the management of the COVID-19 pandemic such as contact tracing, diagnosis, treatment, and care of patients with COVID-19 [8].

Healthcare workers are involved with infected patients' care faced with an unknown threat to their own life. Excessive workload, fear of contagion, feeling of being under pressure, lack of specific drugs, and

[1] Master's Scholar- Neurology @ IAMR, Ghaziabad, Uttar Pradesh-INDIA
[2] Prof. (Head), IAMR, Ghaziabad, UP, India shagun.aggarwal@iamr.ac.in

isolation of community were the major issues faced by healthcare workers during the time of the COVID-19 outbreak[9]. Healthcare workers assisting patients infected with the COVID19 may face further stress due to the stigma. In this situation, doctors may face a higher level of work demands related to the mental (such as working on diagnosis as COVID-19 symptoms mimic other mild common diseases), physical (such as prolonged working in complete personal protective equipment attire under hot and humid conditions)[10], temporal (such as managing multiple urgent cases under time constraints) and emotional (such as dealing with patients' death and dying) context. Those doctors who were not directly involved in the management of COVID-19 cases could also be similarly affected [11].

On the other hand; fear of COVID-19 seems to be positively related to depression and job insecurity. Recovery experiences refer to the psychological state that people experience related to the activities they pursue during non-work time such as psychological detachment from work, control over leisure time, relaxation and mastery [12]. The lockdown mechanism to hold the economic situation viable from May 31, 2020, thereby restarting workplaces, industries, and transport after suspending it for more than 2 months. It is found that 98% of transactions of the state-owner banks are not digital where 99% of the country's banking is branch-based. So, banks are kept open in this lockdown period[13].

High work demands potentially spillover into the non-work home domain, causing difficulty in psychologically detaching from work or in controlling their leisure time, consequently resulting in poor recovery [14]. Being mentally or emotionally attached to work as a consequence of high mental or emotional demands may also make psychological detachment from work difficult during the intershot period [15].

The implementation of movement control order or lockdown could also limit involvement in outdoor physical activities that potentially affect recovery. As a result, it is plausible that doctors do not recover from their ever-increasing job demands, which could lead to multiple adverse consequences. As a result of increasing work demands and possible poor experiences of recovery, healthcare workers, including doctors, are at risk of developing psychological distress and other mental health symptoms [16]. Healthcare workers found that 49.38% expressed posttraumatic stress symptoms, 24.73% symptoms of depression, 19.80% symptoms of anxiety, and 21.90% high perceived stress. High psychological distress, anxiety, and depression accounted for the need for psychological support among professionals [16].

Lockdown, i.e., home confinement as a measure to mitigate disease outbreak but can affect physical and mental well-being, sometimes drastically. Social isolation as a measure to reduce infection curtails access to family, friends, and other social systems that as a consequence can cause loneliness, anxiety, and depression [17].

In times of an epidemic, people tend to experience fear of getting infected with the virus disease resulting in anxiety, stress, and depression, etc. Stress can be explained as a feeling of emotional and physical tension which arises from any event that threatens our homeostasis. On the other hand, the fear of the unknown is termed as anxiety that is the body's natural response to Stress. Depression is viewed as a state of disinterest in daily activities. It is surmised that people facing a pandemic with no vaccination would result in fear of the unknown (in this case, the corona virus) making them anxious, stressed and depressed. Keeping in mind the concerns regarding psychological distress raised around the globe have argued for a timely action on mental health during the Covid-19 pandemic [18].

Furthermore, it is also evident that unpredictability, unreliability, the extremity of the COVID-19 pandemic along with the deception, and social isolation measures contribute to widespread stress apart from the escalation in human welfare[19]. This pandemic further triggers a significant global economic recession that adversely impacts psychological health and induces a wide variety of emotional depression and mental problems such as stress, depressive symptoms, and anxiety [20].

Experts from the Psychiatric Society of Goa reported anxiety, depression, stress and other mental health issues were common during the lockdown (PTI, 2020). A recent survey conducted by the Indian Psychiatry Society indicates 20% rise in patients suffering from mental illness [21]. Several studies have been conducted on the mental health of people during situations such as lockdown, isolation and quarantine to contain the spread of pandemics[22]. They showed that when people are restricted to a certain kind of environment, their mental health gets adversely affected. For example, Sprang and Silman (2013) found that 25% of quarantined or isolated parents and 30% of isolated or quarantined children had posttraumatic stress disorder [23].

While being in such a precarious condition, there is no research comparing the effect of the COVID-19 pandemic on the psychological distress and quality of life of professionals working from home and professionals working from office. The study is therefore the first attempt to analyze the effect of this COVID-19 pandemic on the psychological health of professionals working from home and professionals working from office. This study would investigate the quality of life and health-related association of psychological consequences such as depression, anxiety, and stress among professionals working from home and professionals working from office during the COVID-19 pandemic, and the analysis results would visualize the significance of research in the field of mental health.

II. Material and Methods

Study Design: This is the prospective cross-sectional study design to assess the level of depression, anxiety, stressand associated health related quality of life during the COVID-19 pandemic of work from home and work from office workers. The samples are selected from the different sources of contacts. Duration for this study was six months and this comprises of 380 participants. According to the inclusion criteria, all genders are invited to take part in this study, with the mentioned age group of between 25 to 35 years. Similarly, for the exclusion prospective the participants should not be exceeding 35 years.

Method: This study is conducted with the two groups working from home and working from office. Participation in the study was voluntary and an informed consent was obtained. The participating students were briefed about the purpose of the study and informed that their data would be safe and was guaranteed confidentiality. The Scale used to collect the data are: DASS-21; and Short Forms Scales: SF-36 and SF-12 for the Health-Related Quality of Life. The scales have been tested and found to possess excellent reliability, good validity and simple language.

Data Analysis

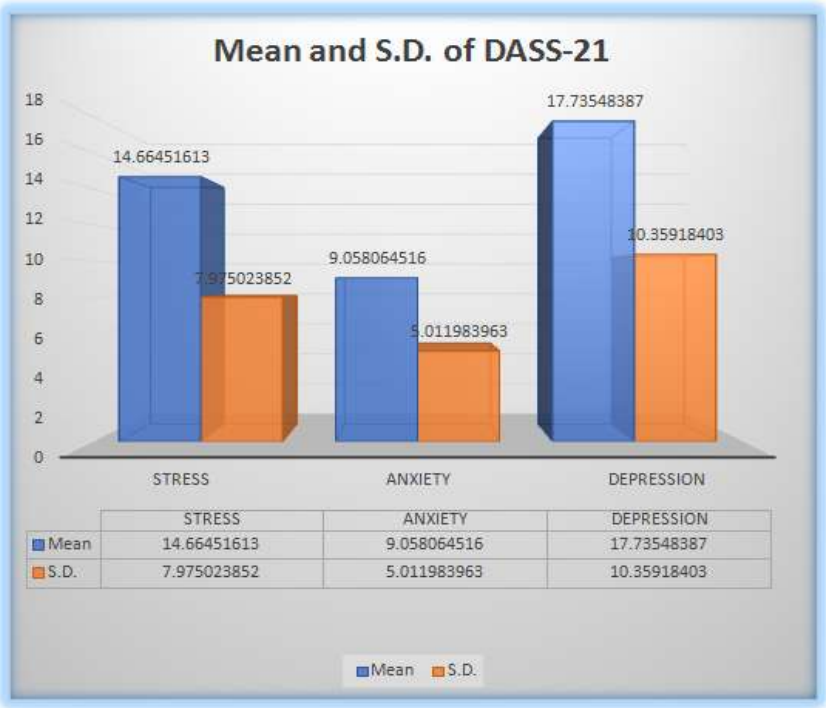
The Data were entered in to the computer database. The responses of the data were calculated with the JASP (Jeffrey's Analyzing Statistics Program) Version 0.16 (2021) with new updates and Microsoft Excel (2016). Descriptive Statistical Tests, Independent T-Test, Paired T-Test in some groups and Correlation Test is done between each parameter of scales used and within the groups also.

III. Results

Table No. 1: - Shows the descriptive statistical Mean and S.D values for whole as combined factors of Male and Females in the study of the samples (N=155), Working from Home.

	DASS-21		
	STRESS	**ANXIETY**	**DEPRESSION**
Mean	**14.6645**	**9.05806**	**17.7355**
S.D.	**7.97502**	**5.01198**	**10.3592**

This table is showing the combined Mean and S.D. values of DASS-21 parameters of Males and Females collectively.



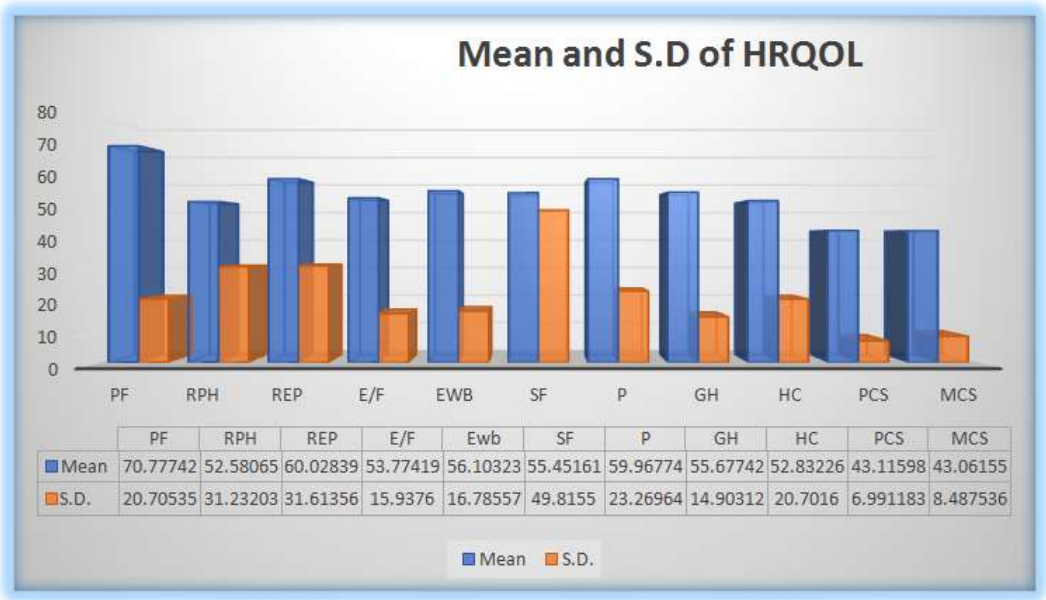
Graph No. 1: - Shows the Graphical View of the descriptive statistical Mean and S.D values for whole as combined factors of Male and Females in the study of the samples (N=155), Working from Home of DASS-21 parameters.

Presented the Total Mean and S.D. value of Stress as 14.66451613 and 7.975023852 respectively and values of Anxiety represents as 9.058064516 and 5.011983963 respectively at last parameter of DASS-21 i.e., Depression shows the values of 17.73548387 and 10.35918403 respectively.

Table No. 2: - Shows the descriptive statistical Mean and S.D values for whole as combined factors of Male and Females in the study of the samples (N=155), Working from Home of HRQOL with PCS and MCS.

	HRQOL										
	PF	RPH	REP	E/F	Ewb	SF	P	GH	HC	PCS	MCS
Mean	70.7774	52.5806	60.0284	53.7742	56.1032	55.4516	59.9677	55.6774	52.8323	43.116	43.0615
S.D.	20.7053	31.232	31.6136	15.9376	16.7856	49.8155	23.2696	14.9031	20.7016	6.99118	8.48754

This table is presenting the combined Mean and S.D. Values of HRQOL parameters of Males and Females collectively.



Graph No. 2: - Shows the Graphical view of Shows the descriptive statistical Mean and S.D values for whole as combined factors of Male and Females in the study of the samples (N=155), Working from Home of HRQOL with PCS and MCS.

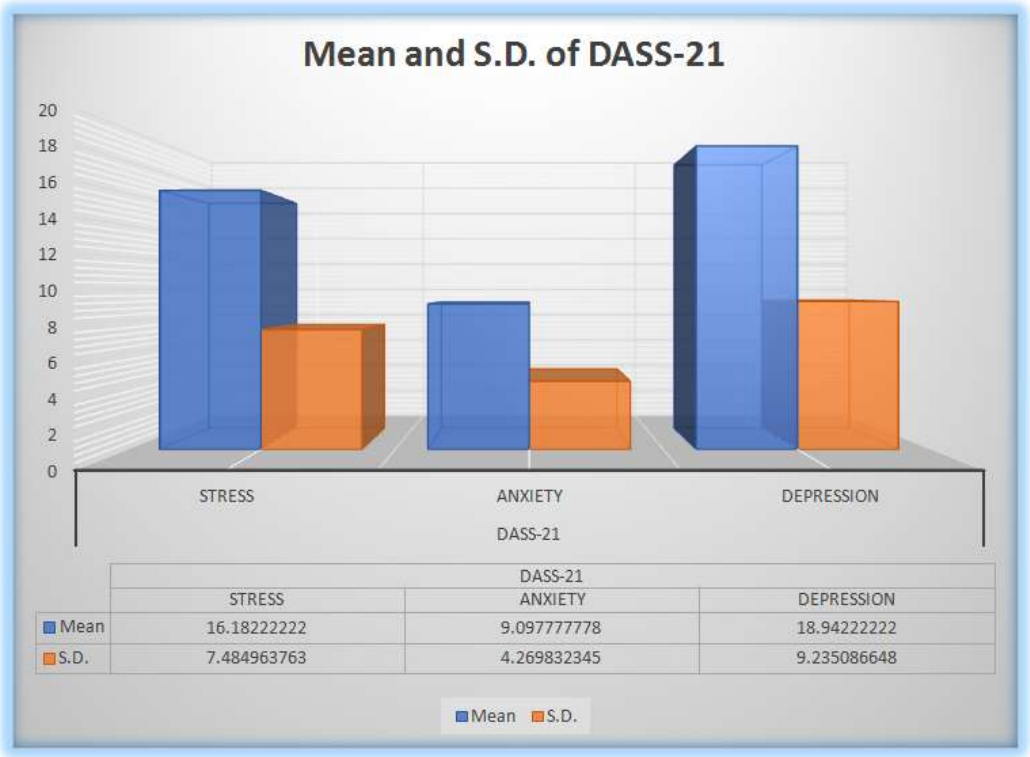
There are nine separate components in the HRQOL (Health Related Quality of Life) parameters associated with two separate parameters, which shows the Mean and S.D values as PF (Physical Functioning) as [70.7774, 20.7053] respectively, RPH (Role limitation due to Physical Health) as [52.5806, 31.232] respectively, REP (Role limitation due to Emotional Problem) as [60.0284 and 31.6136] respectively, E/F (Energy/Fatigue) presented as [53.7742 and 15.9376] respectively, Ewb (Emotional Well-being) values as [56.1032 and 16.7856] respectively, SF (Social Functioning) presented as [55.4516 and 49.8155] respectively, P (Pain) presents as [59.9677 and 23.2696] respectively, GH (General Health) shows the values as [55.6774 and 14.9031] respectively and HC (Health Change) presented the values as [52.8323 and 20.7016] respectively.

The associated parameters are PCS (Physical Score) which is presented the Mean and S.D. Values as 43.116 and 6.99118 respectively and MCS (Mental Score) presented the Mean and S.D. Values as 43.0615 and 8.48754 respectively.

Table No. 3: - Shows the descriptive statistical Mean and S.D values for whole as combined factors of Male and Females in the pilot study of the samples (N=30), Working from Office.

	DASS-21		
	STRESS	**ANXIETY**	**DEPRESSION**
Mean	**16.1822222**	**9.097777778**	**18.94222222**
S.D.	**7.48496376**	**4.269832345**	**9.235086648**

This table is showing the combined Mean and S.D. values of DASS-21 parameters of Males and Females collectively.



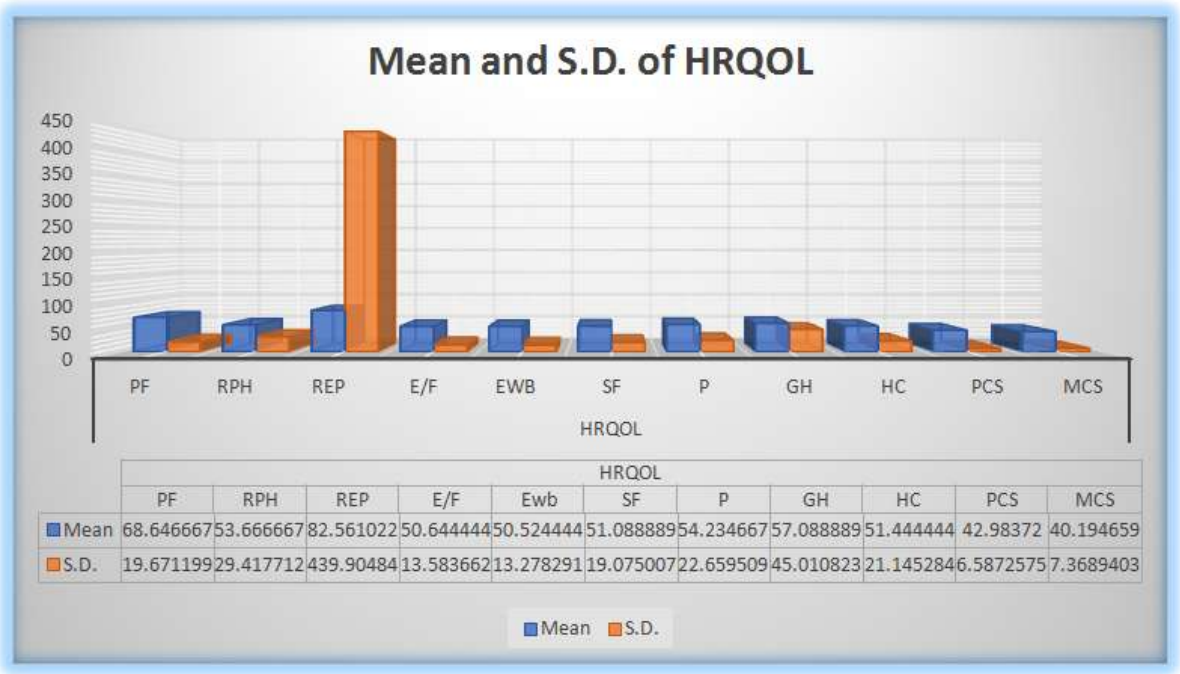
Graph No. 3: - Shows the Graphical View of the descriptive statistical Mean and S.D values for whole as combined factors of Male and Females in the pilot study of the samples (N=30), Working from Office of DASS-21 parameters.

Presented the Total Mean and S.D. value of Stress as 16.1822222 and 7.48496376 respectively and values of Anxiety represents as 9.097777778 and 4.269832345 respectively at last parameter of DASS-21 i.e. Depression shows the values of 18.94222222 and 9.235086648 respectively.

Table No. 4: - Shows the descriptive statistical Mean and S.D values for whole as combined factors of Male and Females in the study of the samples (N=225), Working from Home of HRQOL with PCS and MCS.

	HRQOL										
	PF	RPH	REP	E/F	Ewb	SF	P	GH	HC	PCS	MCS
Mean	68.6467	53.6667	82.561	50.6444	50.5244	51.0889	54.2347	57.0889	51.4444	42.9837	40.1947
S.D.	19.6712	29.4177	43.9905	13.5837	13.2783	19.075	22.6595	45.0108	21.1453	6.58726	7.36894

This table is presenting the combined Mean and S.D. Values of HRQOL parameters of Males and Females collectively.



	HRQOL										
	PF	RPH	REP	E/F	Ewb	SF	P	GH	HC	PCS	MCS
Mean	68.64667	53.66667	82.56102	50.64444	50.52444	51.08889	54.23467	57.08889	51.44444	42.98372	40.19465
S.D.	19.67119	29.41771	439.9048	13.58366	13.27829	19.07500	22.65950	45.01082	21.14528	6.587257	7.368940

Graph No. 4: - Shows the Graphical view of Shows the descriptive statistical Mean and S.D values for whole as combined factors of Male and Females in the pilot study of the samples (N=30), Working from Home of HRQOL with PCS and MCS.

There are nine separate components in the HRQOL (Health Related Quality of Life) parameters associated with two separate parameters, which shows the Mean and S.D values as PF (Physical Functioning) as [68.6467, 19.6712] respectively, RPH (Role limitation due to Physical Health) as [53.6667, 29.4177] respectively, REP (Role limitation due to Emotional Problem) as [82.561, 43.9905] respectively, E/F (Energy/Fatigue) presented as [50.6444, 13.5837] respectively, Ewb (Emotional Well-being) values as [50.5244, 13.2783] respectively, SF (Social Functioning) presented as [51.0889, 19.075] respectively, P (Pain) presents as [54.2347, 22.6595] respectively, GH (General Health) shows the values as [57.0889, 45.0108] respectively and HC (Health Change) presented the values as [51.4444, 21.1453] respectively.

The associated parameters are PCS (Physical Score) which is presented the Mean and S.D. Values as 42.9837 and 6.58726 respectively and MCS (Mental Score) presented the Mean and S.D. Values as 40.1947 and 7.36894 respectively.

IV. Discussion

The aim of this study was to find out the effect of Stress, Anxiety and Depression on the Quality of life of the workers who are working from their home and those who are working from their office during the COVID-19 pandemic. This study was done on Males and Females both of different Profession Groups who have the different working field, samples were included in study from online method of collection. The Group which consists of the professional s who are working from home has manifests the Moderate Depression, Mild Anxiety and Normal Stress Level during their work time in Covid-19 Pandemic. On the other hand, the Group Working from the Office showing that, Mild Anxiety as approximately similar to the Group i.e. working from home and Moderate Depression Slightly high in the value as compare to the Group who are working from home. However, in the Stress level there is a difference, Group who are working from office is showing the Mild Stress which is approaching towards the moderate stress level as seen to the value that calculated.

In following with the next correlations in both the groups with individual factors as are- the correlation between Stress and Anxiety in the Group who are working from home is positively correlated with the r= 0.713, in the same group Stress and Depression is correlated positively with r= 0.877 and Anxiety and Depression is also correlating Positively with showing the r= 0.743.

Similarly, the Stress and Anxiety, Stress and Depression and Anxiety and Depression all are correlates positively with different R-values which is as r= 0.693, r= 0.838, r=0.673 respectively in the group who are working from the office.

This result is also facing on their HRQOL in both groups. The HRQOL is showing the reduced values in the personal who are working from Office in the Pandemic time in the sub division the mental health is detecting low score as compare with the physical health score with the working Percent as 85.96% as Physical

working Score and 80.38% as Mental score as active or working in the personnel who are working from Office. 86.22% as Physical score and 86.12% as Mental Score in the group who are working from Home are showing almost similar working capacity comparing with the group working from Office.

As the COVID-19 pandemic is going to persist for some time and this high level of stress is going to possibly persist and increase, there is a need to develop a policy for the personnel, so that their duty hours can be regulated, they can be provided with adequate protective gears and there should be provision for their isolation in safe places. Governments should also take necessary and immediate steps to mitigate the psychological impact of the COVID-19 pandemic on the police personnel by holding stress management programs and evaluating at-risk police personnel and providing timely psychiatric help by mental health professionals.

V. Conclusion

According to the results of data analysis, it was found that Stress, Anxiety and Depression is significantly effective on the Health-Related Quality of Life (HRQOL). Future studies should include larger sample sizes, as demonstrated by the power analysis calculations, to allow for more advanced statistical analysis and further clarification of the efficacy of the psychological analysis in the different parameters of both the groups i.e., Working from Home and Working from Office.

VI. Limitation

The study was conducted in limited period. The study was conducted in a small population in limited area. The samples consist of no transgender subjects. This study can be done with more advance outcome measures. Study can be conducted in different occupational areas with a wide aspect of psychological theories.The longest follow-up of the articles chosen was six years, with the majority of studies selected for the review assessing the short-term effects of psychological treatment. Therefore, specific recommendations detailing that different Level and Parameters can be used for assessing the score in the subjects. However, practically speaking, variability within Psychological Parameters is prescription is likely to exist in clinical practice based on the degree of impairment and of the clinical Psychologist philosophical treatment bias. The co-interventions undermine the ability to determine the effectiveness of Stress, Anxiety and Depression alone on the Health-Related Quality of Life. Consequently, the results should be interpreted with caution for long-term improvements in patients who needs psychological assistance.

Ethical Clearance: As per the Ref. No: IAMR/22/3170 Institute of Applied Medicine and Research given the ethical Clearance for the research. There is no funding and no Conflict of interest.

References

[1]. ISSN : 2229-9327. 2021;(April):172–82.
[2]. Chen X, Xu Q, Lin H, Zhu J, Chen Y, Zhao Q, et al. Quality of life during the epidemic of COVID-19 and its associated factors among enterprise workers in East China. BMC Public Health. 2021;21(1):1–8.
[3]. Coker AO, Coker OO, Sanni D. Psychometric properties of the 21-item Depression Anxiety Stress Scale (DASS-21). African Res Rev. 2018;12(2):135.
[4]. Duay M, Morgiève M, Niculita-Hirzel H. Sudden changes and their associations with quality of life during covid-19 lockdown: A cross-sectional study in the french-speaking part of Switzerland. Int J Environ Res Public Health. 2021;18(9).
[5]. Encyclopedia BO. Amygdala. 2021;1–5.
[6]. Epifanio MS, Andrei F, Mancini G, Agostini F, Piombo MA, Spicuzza V, et al. The impact of COVID-19 pandemic and lockdown measures on quality of life among Italian general population. J Clin Med. 2021;10(2):1–19.
[7]. Everly, GS, Lating JM. A Clinical Guide to the Treatment of the Human Stress Response. A Clinical Guide to the Treatment of the Human Stress Response. 2013.
[8]. Fauzi MFM, Yusoff HM, Robat RM, Saruan NAM, Ismail KI, Haris AFM. Doctors' mental health in the midst of covid-19 pandemic: The roles of work demands and recovery experiences. Int J Environ Res Public Health. 2020;17(19):1–16.
[9]. Grover S, Sahoo S, Dua D, Mehra A, Nehra R. Psychological Impact of COVID-19 Duties During Lockdown on Police Personnel and Their Perception About the Behavior of the People: an Exploratory Study from India. Int J Ment Health Addict. 2020;
[10]. Knapen J, Vancampfort D, Moriën Y, Marchal Y. Exercise therapy improves both mental and physical health in patients with major depression. Disabil Rehabil. 2015;37(16):1490–5.
[11]. Lenzo V, Quattropani MC, Sardella A, Martino G, Bonanno GA. Depression, anxiety, and stress among healthcare workers during the covid-19 outbreak and relationships with expressive flexibility and context sensitivity. Front Psychol. 2021;12(February):1–9.

[12]. Majumdar P, Biswas A, Sahu S. COVID-19 pandemic and lockdown: cause of sleep disruption, depression, somatic pain, and increased screen exposure of office workers and students of India. Chronobiol Int [Internet]. 2020;37(8):1191–200. Available from: https://doi.org/10.1080/07420528.2020.1786107
[13]. Martinotti G, Alessi MC, Di Natale C, Sociali A, Ceci F, Lucidi L, et al. Psychopathological Burden and Quality of Life in Substance Users During the COVID-19 Lockdown Period in Italy. Front Psychiatry. 2020;11(September):1–8.
[14]. Mccammon RB. University of North Dakota, Grand Forks, North Dakota. J Geol. 1962;70(4).
[15]. Nayeema B. In covid-19 lockdown who are engaged? Moderation analysis of stress on government hospital nurses engagement. Turkish J Comput Math … [Internet]. 2021;12(10):792–802. Available from: https://turcomat.org/index.php/turkbilmat/article/view/4250
[16]. Pieh C, Budimir S, Probst T. Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID- 19 . The COVID-19 resource centre is hosted on Elsevier Connect, the company ' s public news and information . 2020;(January).
[17]. Purba FD, Kumalasari AD, Novianti LE, Kendhawati L, Noer AH, Ninin RH. Marriage and quality of life during COVID-19 pandemic. PLoS One [Internet]. 2021;16(9 September):1–11. Available from: http://dx.doi.org/10.1371/journal.pone.0256643
[18]. Rehman U, Shahnawaz MG, Khan NH, Kharshiing KD, Khursheed M, Gupta K, et al. Depression, Anxiety and Stress Among Indians in Times of Covid-19 Lockdown. Community Ment Health J [Internet]. 2021;57(1):42–8. Available from: https://doi.org/10.1007/s10597-020-00664-x
[19]. Shah M. EFFECT OF RECREATIONAL ACTIVITIES VERSUS AEROBIC EXERCISES ON STRESS , ANXIETY , SLEEP , QUALITY OF LIFE AND NECK RANGE OF MOTION IN BANK EMPLOYEES POST COVID-19 LOCKDOWN : A COMPARATI ... EXERCISES ON STRESS , ANXIETY , SLEEP , QUALITY OF LIFE AND NECK R. 2021;(April).
[20]. Ströhle A. Physical activity, exercise, depression and anxiety disorders. J Neural Transm. 2009;116(6):777–84.
[21]. Tiller JWG. Depression and anxiety. Med J Aust. 2012;1(October):28–32.
[22]. Verma S, Mishra A. Depression, anxiety, and stress and socio-demographic correlates among general Indian public during COVID-19. Int J Soc Psychiatry. 2020;66(8):756–62.
[23]. Yasmin S, Alam MK, Ali F Bin, Banik R, Salma N. Psychological Impact of COVID-19 Among People from the Banking Sector in Bangladesh: a Cross-Sectional Study. Int J Ment Health Addict. 2021;

Yachika Gaba, et. al. "Analyzing the Stress Anxiety and Depression with Quality of life in work from home and working from office professionals in COVID-19 lockdown."*IOSR Journal of Humanities and Social Science (IOSR-JHSS)*, 27(04), 2022, pp. 37-44.