

**The Impact Of Physical Activity On The Psychological Welfare
During The Covid-19 Pandemic- A Review Article**

ABSTRACT:

The COVID-19 epidemic and its accompanying public health limitations are having a growing negative influence on mental health, and steps must be done to reverse this trend. Although there is a well-established link between physical activity and mental health, space and facilities for physical activity are restricted during the COVID-19 epidemic because of different constraints. Based on the most recent study findings released in 2019–2021, this article investigates the association between physical activity and mental health during the COVID-19 pandemic. First, physical activities during COVID-19, particularly supervised activities, are beneficial to happiness and mental health. Second, during the COVID-19 epidemic, physical activity decreases people's anxiety, melancholy, and despair. Third, the intensity and frequency of physical activity are linked to mental health maintenance and improvement. Physical activity that is both intense and frequent is beneficial to mental health. Finally, this study suggests crucial research directions for the future. The corona crisis has handicapped all of us in more than one way and we had to force ourselves live within the rigid norms the government had pushed upon us. The tight lockdown, the strict curfews, the curbing of any sort of dopamine releasing factor. All of this made us feel like we were inmates in an institution, and the feeling of helpless crept in despite of the elaborate measures the government took to make us feel that this was for the 'greater good of our communities'. The lockdown us made us all couch potatoes endlessly switching channels on our television, scrolling on our exuberant number of social media applications or reading the same news over and over again, keeping track of the extent of the spread of the deadly virus hoping to find something worth spending our already wasted time on. In time this has opened a portal to which we never batted an eye and made us realize how precious our freedom is to us. This article is a small glimpse of how precious our bodily movements are to us, how ever miniscule or ordinary they might be.

Keywords: Covid-19, Physical Activity, Psychological Impact, Mental Issues

INTRODUCTION:

In December 2019, Wuhan saw an epidemic of novel coronavirus pneumonia (Hubei, China). Coronavirus illness (COVID-19) began to spread at a pace so fast that in a blink of an eye it had spread to a large number of countries and took the whole world by surprise in early 2020, initially in China and then fast around the world, with Europe as a whole, and some nations in particular, such as Spain and Italy, becoming heavily affected by the pandemic's infection and mortality(1). This unusual and quick epidemic has resulted in severe mental health problems like as stress, overthinking, and melancholy for both medical professionals and the general public as well as other professional populations such as teachers, lawyers, professional athletes, school going children, daily wage worker etc.

50 Physical activity or exercise is well-known for improving and/or maintaining physical and
51 mental health, as well as improving overall quality of life. To explain the good effects of
52 physical activity, many physiological and psychological processes have been proposed.
53 Exercise may raise hormones, endorphins, and Brain-derived Neurotrophic Factor (BDNF)
54 levels in the body, making people feel happier and less stressed. Furthermore, exercise
55 provides a psychological "time out" from the stressor, and regular exercise enhances self-
56 efficacy to manage the challenges they confront.

57 The COVID-19 epidemic has brought the importance of physical activity to the forefront of
58 people's minds. Throughout the pandemic, the news media has reported extensively on the
59 beneficial effects of physical activity on physical health and persons with moderate
60 coronavirus infection. Regular and long-term physical activity boosts immunological
61 surveillance, functions as an anti-inflammatory agent, lowers the chance of acquiring a
62 variety of chronic illnesses, and improves overall physical health and disease prevention and
63 resistance.

64 65 **DISCUSSION:**

66
67 Economic impact which eventually led to the drastic plunge in the physical movement which
68 further resulted in psychological stresses and illnesses: (1)

69
70 The corona crisis, resulted in development of a huge number of stress related disorder
71 ,for instance quite a number of families have gone in a bitter financial crisis due to the
72 lockdown. The lockdown has put the whole economy on a standstill and had slowly started
73 going in a recession. This affected a vast majority of the population especially the middle
74 class and the lower middle class who solely depended on their everyday bread from daily
75 wages, and had burnt through their savings just to eat and buy essential goods.

76 Their has been a study which states that men had developed a slightly higher percentage of
77 mental illness that their female counterpart during the recent pandemic. Researchers have
78 said that there is good probability that has happened as usually men are the sole breadwinners
79 of the household. They are held as well as hold them self responsible if they can not provide
80 for their families in time of dire circumstances. Such individuals may have experienced
81 traumatic stress. Traumatic distress is defined as an acute anxiety and powerlessness felt as a
82 danger to the bodily autonomy of the individual and everyone around them.

83 The curbing of physical activity did not assist in this stressful situation even in a teeny tiny
84 way. A large number of population do some or the other physical activity, whatever it may
85 be, a game of football, basketball, cricket, tennis, table tennis, squash, going for a brisk walk,
86 a run, or even go to the gym for a workout. Already has been proved that any sort of bodily
87 movements of any nature has always been ,and will continue to be always constructive in
88 nature.

89 The cutting of such daily stress busters, mood uplifting activities have affected the personal
90 lives of many individuals on physical level which has directly affected their mental wellbeing
91 which has led to mood related disorders as well. There had been a rampant epidemic of
92 depression, anxiety, and such mood related disorders during the corona crisis. This may have
93 happened due to an amalgam of 'accumulation of stress and frustration and no way to get
94 away from the stress'.

95
96 The impact of physical activities on different categories :(2)

97 General population:

98 What classifies as a physical activity?

Comment [R01]: The citation of literature in the paper should be standardized. It is necessary to decide how to write the citation of the source (either within the text or in the underlined initial part of the text). It is clearer to cite literature within the text.

Comment [R02]: The comment is the same as in line 68.

99 Is it only confined to a some kind of sport like basketball, football, cricket, tennis etc., or is it
100 going out for a run or going for a workout at the local gym or is it attending
101 a Zumba/aerobic class or is it going for a yoga session ? It can be anything you want it to be.
102 In the same way there are many people who don't like or are less fortunate individuals who
103 cannot do these leisure activities due to some financial or physical condition which do not
104 permit them the luxury of such activities.
105 So, a physical activity cannot be confined to all the things mentioned above, for some
106 individuals it can be taking their dog for a walk, or going to the market to buy the
107 groceries everyday, or it can be the daily walk from home to the train station or
108 bus station, or it can be delivering some goods etc.
109 So once these small things which people did in the disguise of a physical activities is cut off
110 from their lives all of a sudden as it did during the covid crisis. These individuals didn't know
111 how to deal with it. It was sort of like hampering somebodies daily routine, initially the
112 individual will feel relaxed but as time passes he/she will become restless and will want to go
113 back to their routines and this also has been proved time and time again.

114
115 The impact on physical activity during the covid pandemic and professional athletes and
116 organized sports:

Comment [R03]: The source of the literature is missing in this passage.

117
118 The recent the recent corona crisis, which started early in the year 2020 has had a huge
119 impact on the lives of various individuals in various sector had been affected. The sector
120 which we will be menting here is the organized sports sector which took a devastating hit
121 during the pandemic and had come to an absolutely for a very long period of time.

122 All organized sports may it be individual or team sports ad ben suspended indefinitely as well
123 as all social activity.

124 It has been stated time and time again that physical activities have established themselves in a
125 tremendously essential position in the overall well-being of an individual, and have a positive
126 effect on mental illnesses such as depression and anxiety.

127 Team sports have said to boost confidence, integrity of the individual, boost social interaction
128 and social skills , boosts self esteem and self worth, increase their communication skills
129 drastically, and have a feeling of acceptance. This drastically reduces depression and anxiety
130 levels, and proves that individuals who play team sports are less likely to develp mental
131 health issues than individuals who individual sports .

Comment [R04]: develop

132 People who play sports(athletes) vs people who don't(non-athletes):(3)

Comment [R05]: The comment is the same as in line 68.

133 Furthermore, if we dive deep into the spectrum of the effect sports have on the total well
134 being of a person , it has been s established in many findings that athletes who play any sort
135 of team sport or even an individual sport are less likely to develop any mental illness like
136 depression and anxiety in comparison to those who don't play any sports on a regular basis.
137 According to many studies it has been proved on multiple occasions that athletes are better at
138 social interactions than non athletes. Not being able to interact with your peers can also have
139 an effect on the individuals mental status indirectly and leads to anxiety. Sports not only
140 helps us deal with victory but also teaches us how to deal with failure gracefully and be open
141 to criticism, known as constructive criticism. This level of mental stability is one of the
142 principles on why anybody should take up a sport. You can phrase it as 'sports might be the
143 immunity to mental health issues', inspite of all the advantages sports has on the total
144 wellbeing of a person , athletes also fall to the prey of mental illnesses. But
145 sports definitely bolsters the mind against mental illnesses.

146
147 Effect on the mental stability of the common residents of given area by stopping organized
148 sports: (4)

Comment [R06]: The comment is the same as in line 68.

149
150 Furthermore, this has affected the normal working-class population in more than one way. As
151 all organized sports had been suspended due to the deadly virus, the general population was
152 left dumbfounded as a huge chunk of the working-class population used to invest time in
153 watching organized sports and it used to keep them occupied with something to constantly
154 think about. With the disappearances of all organized sports people had nothing to go to or to
155 keep themselves occupied with, all the hours they invested of their weekends and during their
156 daily lives in this activity had suddenly been reduced to nothing. A lot of people who were
157 hardcore sports fan had to suddenly pick up something different to do with their past time. A
158 lot of people coped up with this change quickly, but a lot of people couldn't come up with
159 something as exhilarating as watching their favorite football team win a match by scoring a
160 goal in last minute of extra time, or their favorite tennis player win an unwinnable set. This
161 became an issue with a certain set of people and had hours on the weekend free with nothing
162 to do, as there is a saying "an empty mind is the devils workshop". This allowed some people
163 of this category to become prey to mental health issues.

164 Watching organized sports is not only a matter personal involvement,
165 but involves communities altogether. They spent time on the weekend watching the matches
166 together and spend the week analyzing the results of the games that were conducted on the
167 weekend, this is a great past time for a lot of individuals including myself. Having organized
168 sports on the weekends gives an opportunity for social gatherings as well and
169 provides and excellent pass time as well as a stress buster.

170 Individuals who had failed to pick up some other hobby in the meantime might have suffered
171 mental illnesses.

172
173 The triad of rest, bodily exertion and psychological wellbeing during the covid-19 pandemic:
174 Sleep is an integral part of our lives which ensure the total wellbeing of an individual, which
175 includes the physical as well as the mental realm. Adequate amount of Sleep helps our body
176 repair itself and helps in a speedy recovery, not only does it help our body repair itself, but
177 also helps our mind relax and keep us at bay from all the distress and various other
178 illnesses. (5-6)

179 Due to the corona crisis, there has been a reduced amount of exposure from the sun which is
180 an essential component for us to maintain our circadian rhythm i.e., our sleep-wake cycle.
181 With the disturbance of our circadian rhythm there has been reported disturbance of sleep, in
182 individuals. The further stresses such as unemployment, economic instability, stoppage of
183 education, solitude, have increased the general population to risk of mental illnesses.

184 Furthermore, the curbing of physical activities due to the to the restrictions of
185 movement imposed by the government have confined the whole population to their
186 households. This reduction of physical activity due to the lockdown has had a major role to
187 play with the disturbance of sleep pattern in a large number of individuals. (7)

188 We all know, and it has been proved staying physically fit i.e., doing some sort of physical
189 activity improves the quality of the sleep of an individual directly. Hence enhanced sleep
190 quality improves the symptoms of depression and anxiety.

191 With lack of physical activity during the lockdown, there have been reports of increased
192 sleeping disorders like insomnia, narcolepsy and increased the reports of depression and
193 anxiety as well. This is solely due to the cracks in our body's defense system against mental
194 illnesses.

195
196
197 Factors that Make Physical Activity Difficult

Comment [R07]: results

Comment [R08]: that

Comment [R09]: The source of the literature is missing in this passage.

198 Physical activity can help people cope with the epidemic by lowering their stress levels,
199 improving their physical and mental health, and improving their overall quality of life.
200 Physical activities, both planned and spontaneous, are crucial explanatory factors for personal
201 wellbeing, whether before or during the lockdown. During the COVID-19 shutdown, we first
202 investigate the issues that obstruct normal sports or activities.

203 204 Existing Health Conditions

205 Physical health concerns are expected to result from a lack of physical activity during the
206 epidemic. Sedentary behavior and physical inactivity can lead to persistent and high-level
207 inflammation, making people more vulnerable to COVID-19's most severe form. When
208 infected with the COVID-19 virus, patients with immunosuppression and persistent low-
209 grade inflammation (particularly the elderly) had more severe illness and increased death,
210 according to studies. As a result, moderate physical activity is especially beneficial, as it can
211 boost immunity and give immunological protection. (8)

212 Regrettably, pre-existing health problems can make physical exercise difficult, increasing the
213 chance of infection. If infected, the severity of the sickness will be significant, resulting in
214 even more serious health concerns.

215 Lockdown, self-isolation, and quarantine

216 Quarantine, self-isolation, and confinement have all hampered the growth of sports and other
217 activities due to a lack of facilities and time limitations. Non-physical workouts like positive
218 thinking activities, meditation, and art, as well as mild physical activities like walking, grew
219 increasingly popular as the pandemic lockdown cycle lengthened, whereas heavier physical
220 activities like cycling, hiking, and jogging became significantly less popular. Some people's
221 motivation to exercise may be harmed as a result of quarantine, self-isolation, or lockdown.
222 Throughout times of quarantine, self-isolation, and lockdown, the population's overall
223 physical movement is said to be drastically reduced, with severe negative impacts on people's
224 quality of life and well-being. (9)

225 226 Nature, duration, and regularity of physical activity (10)

227
228 The pandemic's constrained group activities have generated mental health
229 issues, emphasizing the significance of physical activity through alternate types of exercise,
230 particularly home workout, as a coping technique in such trying circumstances.

231 232 Physical Activity Types

233
234 Almost any sort of physical activity is beneficial, and both physical exercise and relaxation
235 training can assist to mitigate the detrimental effects of stress on one's physical and mental
236 health(10).

237 Pranayama, an ancient kind of exercise that focuses on both the body and the mind, has been
238 demonstrated to be particularly beneficial in increasing mental well-being by promoting
239 psychological reappraisal and autonomic stress coping behavior. All styles of yoga are good
240 for stress alleviation in the early stages.

241 During the COVID-19 pandemic, the frequency of physical exercise may not have the same
242 good influence on mental wellbeing, however greater physical activity is likely to be related
243 with better levels of mental health. The amount of people who exercise is a moderator of the
244 association between stress and general wellbeing, and general condition alone cannot
245 moderate the stress-mental-health relationship(11-15).

246 247 Degree of Physical Activity

Comment [RO10]: The comment is the same as in line 68.

Comment [RO11]: The source of the literature is missing in this passage.

248 Physical exercise intensity has a variable effect on mental health. During the epidemic,
249 people who engaged in more vigorous exercise activities reported higher mental health and
250 well-being. The step counting program, on the other hand, was not linked to mental health
251 ratings.
252

253 **CONCLUSION:**

254 In this article I have summarized the tremendous benefits that bodily activities have on our
255 overall wellbeing i.e. the physical realm as well as the mental realm. I have also emphasized
256 on the fact that physical exertion has on the overall development of any individual, may they
257 be a senior citizen, a child or even any adolescent. this article has added on the paramount
258 number of articles that have already been written, and yet again has proved that physical
259 activities only has positive outcomes which, greatly outweighs the drawbacks.
260

261 **COMPETING INTERESTS DISCLAIMER:**

262 Authors have declared that no competing interests exist. The products used for this research
263 are commonly and predominantly use products in our area of research and country. There is
264 absolutely no conflict of interest between the authors and producers of the products because
265 we do not intend to use these products as an avenue for any litigation but for the
266 advancement of knowledge. Also, the research was not funded by the producing company
267 rather it was funded by personal efforts of the authors.
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Comment [R012]: I suggest not writing the conclusion with personal pronouns. Rather, use a neutral form, e.g., "This article summarizes the tremendous benefits...", "Facts are also emphasized...", etc.

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