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Health Problems Accompanying the Call for 'Stay-at-Home' During the Pandemic

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ABSTRACT

The 'stay-at-home' order is a kind of mass quarantine strategy and has been enforced globally in response to the COVID-19 pandemic. However, various problems have been reported as well. An electronic research was performed in PubMed and Web of Science databases to determine these problems. This study indicates in a holistic approach to determine some of the potential problems during staying at home mandates. Nutritional disorders, sedentary life, disrupted checkups, eye diseases, increase in alcohol and cigarette consumption, psychological negative influences, sleep disorders, and conflict of generations are among them.

Keywords: Pandemic, Stay-at-Home, Quarantine, Strategy, Holistic Approach

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INTRODUCTION

Since the World Health Organization declared a global pandemic in March 2020, healthcare systems worldwide have been under pressure to implement strategies and various containment measures against COVID-19 have been observed in societies across the globe.

Physical distancing measures aim at reducing the frequency of social contact and subsequent transmission of the virus between individuals (Medline et al., 2020). Many studies have showed the protective impact of such measures on controlling the spread of COVID-19 (Lin et al., 2021) and effective prevention of the overloading of health systems during the pandemic (Gostin and Wiley, 2020); consequently, these social distancing measures have been adopted by the governments in a global scale (Eubank et al., 2020). However, compliance with stay-at-home orders has varied among countries (Hong et al., 2021). As calls to "stay-at-home" by ministries of health and other governmental bodies eventually progress to lockdowns nested within the framework of the fight against COVID-19, a new concept of the "normal" came into our lives. Together with such changes, the stay-at-home mandates brought with it difficulty in implementing physical activity.

The World Health Organization (WHO) defines 'health' as a state of complete physical, mental, and social well-being, not merely the absence of disease or infirmity (International Health Conference, 2002) which requires consideration of the holistic approach in a biopsychosocial model. Stay-at-home mandates is an effective way to prevent the transmission of the COVID-19 (Fowler et al., 2020). However, studies have indicated that prolonged intensive stay-at-home isolation may be associated with physical and psychological problems (Toprak Celenay et al., 2020).

The current compilation highlights some of the potential problems associated with staying in an indoor environment for human health over a prolonged period of time and explores solutions and interventions that could be explored and potentially implemented at various levels.

METHOD

We have conducted a rapid review of studies that gathered data from general populations during the on-going stay-at-home phase in 2020-2021 (Munn et al., 2018). PubMed and Web of Science were chosen as the search databases. The following terms were searched: "stay-at-home" OR "lockdown", and "health problems" OR "negative effects" OR "adverse effects" OR "negative impacts" OR "adverse impacts". Included language was English. There was no funding source for this study.

RESULTS

A total of 187 articles related to searched terms were found in the PubMed and Web of Science databases. Various problems like nutritional disorders, sedentary life, disrupted checkups, eye diseases, increase in alcohol and cigarette consumption, psychological negative influences, sleep disorders, conflict of generations, etc. have been reported.

Nutritional Disorders

During this period, food buying patterns for both individuals and families have changed significantly due to a wide variety of factors including access and availability, safety concerns, and financial considerations. In many cases, procurement and consumption of less nutritious foods has increased with foods that may be cheaper to purchase or with longer shelf lives being prioritized over nutritional value. Many individuals have increased intake of refined foods which may be associated with increased serotonin secretion and thus correlate with improved mood (Eskici, 2020). Additionally, we have seen an increase in hoarding behaviors (Ongan et al., 2020). In this

period, we advise home-cooked natural dishes should be consumed and dietary supplement suggestions should be taken from health care professionals.

As time spent indoor increases for both children and adult, a lack of sun exposure can also contribute to deficiency in Vitamin D synthesis; thus, supplementation of Vitamin D may also be considered. Further, Zinc and Vitamin C, D, and E supplements may positively contribute to immunomodulation. The use of prebiotics and probiotics may regulate phagocyte function of the immune system (Eskici, 2020; Grant et al., 2020).

There are also hypotheses that the active ingredients in some foods reduce pulmonary involvement in COVID-19 patients; for example, it was indicated that protein deficiency is significant in the course of respiratory insufficiency (Kartal et al., 2020).

As schools were also shut down during the COVID-19 pandemic, students are also at an increased risk for weight gain and even obesity secondary to decreased physical activity. The available data shows that children put on weight particularly during out-of-school times, partially because they consume increased amounts of unhealthy foods during these periods. This is observed more specifically in the already overweight children (Rundle et al., 2020), which may further risk amongst this population.

In considering diet changes, it is notable that a change of diet in prison inmates was previously shown to show improvement in management of chronic diseases at a population level; in particular, adding olive oil dishes to diets has been shown to be a positive intervention (Gil Delgado et al., 2011).

Sedentary Life

In this period, typical daily activities such as "going to work" or "going to school" are suspended; sports competitions and sports activities are cancelled; and broader circumstances do not allow routine socialization. The changes contribute to an increasingly sedentary lifestyle associated with a decrease in physical activity for many during the pandemic. Tracking data shows that tens of thousands of steps in pedometers were reduced to around 1500 (Ozturk and Bayraktar, 2020). Individuals will likely benefit from increased access to affordable activities that can be performed while observing "stay-at-home" in order to increase overall physical activity (Ozkan and Dilicikik, 2020). As schools begin to re-open, physical education and gymnastics classes should be prioritized alongside traditional academic curriculum such as science and mathematics, while of course social distancing and other safety measures are safely observed (Rundle et al., 2020).

Musculoskeletal Pain

Musculoskeletal disorders have been assessed in a few COVID-19 studies, and it was shown that musculoskeletal disorders, may increase during intensive and prolonged COVID-19 lockdowns (Fallon et al., 2020; Lippi et al., 2020). Sitting down for a long time increases the probability of suffering from musculoskeletal complains (Condrowati et al., 2020).

Disrupted Checkups

Emergency service visits for conditions such as appendicitis, heart attack, and stroke were reduced to a great extent during the COVID-19 pandemic. Various accounts have highlighthed that patients might have avoided seeking medical attention for both longituduinal and emergency care due to fear of exposure to COVID-19 in medical settings; this, an unintended result of the orders for staying at home included a disruption in typical medical care not directly related to COVID-19

(Masroor, 2020). As many chronic diseases require routine and periodic examination,this has been of critical concern for many primary care providers. Particularly in cases that require regular follow-up such as the use of insulin, warfarin, lithium, and immunosuppressive drugs, patients may benefit from being examined in presumably safer environments including their homes; for this, home health care units and/or telemedicine cooperation are critical. The increased risks arising from COVID-19 may lead to updating instruments, roles, and available mediums in the delivery system of health care (Flint and Tahrani, 2020).

Eye Diseases

The people that stay-at-home all day are increasingly spending their time in virtual media. Continuous exposure to screens may increase the risk of xerophthalmia (Akca Bayar and Akova, 2012). Synthetic teardrops, taking breaks in looking at screens, wearing eye relaxing glasses, and consuming foods containing flavonoids, lutein-component and Omega-3 fatty acids may be considered amongst potential interventions (Cakmakci and Tahmas Kahyaoglu, 2012; Coskun, 2005; Huang et al., 2002).

Increase in Alcohol and Cigarette Consumption

The increase in the period of staying at home can also be associated with increases in alcohol and cigarette consumption. Given concurrent increased in financial difficulties and unemployment, one must also consider the role these substances can play as maladaptive coping mechanisms during periods of increased stress. Notably, increases in alcohol consumption has been suggested to weaken the long-term acquired immunity (Rehm et al., 2020); in 2003, a study on the SARS pandemic, which was caused by another virus from the coronavirus family, reported that 12.9% of smokers increased cigarette consumption after the pandemic compared to the period before the pandemic (Lau et al., 2005). Remarkably, cigarette consumption was proven to increase

COVID-19 morbidity and mortality rates (Zhang et al., 2020; Zhao et al., 2020). Further education, regulation, and the addressing of underlying stressors will likely be most impactful at a population level in decreasing overall consumption of these potentially harmful agents.

Psychological Negative Influences

Emotional disorders, panic disorders, and suicidal ideation have been shown to be correlated with increases in feelings of social isolation (Klomek, 2020; Marroquín et al., 2020). The utilization of messaging and video chatting programs to contact their loved ones more frequently, exploring new hobbies, and engaging in organized, planned activities – e.g., doing housework that one had postponed previously due to lack of time – can be critical in keeping psychologically healthy (Everett et al., 2020).

Previous studies have shown that patients that stay in intensive care units have benefited from addressing psychological distress by engaging in practices such as utilizing diaries as a means of recording and reflecting on difficult experiences (Aitken et al., 2013). Thus, keeping diaries can also be recommended for the people staying at home during this global pandemic. Online concerts can be watched in order to make up for the closure of social areas and cancellation of concerts (Kaya Deniz, 2020). Other options for spending time include playing domestic recreative games, online games, and surfing on the internet, but they should be kept within healthy bounds (Gumusgul and Aydogan, 2020; King et al., 2020; Király et al., 2020).

Sleep Disorders

Studies report that sleep quality of people is deteriorating day by day in the pandemic period; it is reported not only for the socially isolated people but also the personnel who fight the pandemic (Xue et al., 2020). Sleep problems are caused by increased body mass index, tea and

coffee consumption, and suchlike circumstances as well as one's mental health (Aktas et al., 2015). A reason-oriented approach can be adopted to solve such problems.

Conflict of Generations

Some people in risk groups and particularly the elderly people were isolated from the society for a length of time. It led to the social issues causing generation gap and conflict of generations (Soysal, 2020). Differences of opinion are on the rise even within the same generation; therefore, additional problems may arise from a teenager and an elderly person spending a long time in the same home. Although these situations can be challenging due to various relational and interpersonal factors, establishing communication through common hobbies and needs might be good option.

CONCLUSION

A stay-at-home order restricts movements of a population as a mass quarantine strategy. Public trust is required for the orders to be effective while it should not be confused with a shelter-in-place situation. Although stay-at-home strategy is an effective way against COVID-19 exposure, it may be accompanied by negative consequences. Therefore, during strict social distancing measures, necessary precautions should be taken in accordance with the holistic health approach against the potential negative consequences. It is suggested to take into account by health system to implement measures for the promotion of good health and quality-of-life with a holistic approach. This research has the limitations of a rapid review with shortcuts; therefore, it is not as comprehensive. It can impact policy, but systematic reviews are still needed.

Ethical Approval: Non applicable. This article does not contain any studies with human participants or animals performed by any of the authors.

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