LETTERS TO THE EDITOR

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Importance of physical activity during and after the SARS-CoV-2/COVID-19 pandemic: A strategy for women to cope with stress

We read with interest the letter entitled "Gender issues during the times of Covid-19 pandemic" by Grisold et al. [1] and find it significant in the context of the present pandemic.

The current SARS-CoV-2/COVID-19 pandemic is associated with an increase in emotional stress and fear that have greatly affected women's mental health [2]. Stay-at-home measures, together with financial and security concerns, can lead to high stress levels. The additional care burden associated with childcare and caring for sick family members during the pandemic can contribute to significant psychological stress. In the present context, it is difficult to find strategies for reducing stress and anxiety [2-4]. Good options are physical activity and relaxation tools. During the pandemic the World Health Organization has provided guidance for individuals in selfquarantine consisting of practical advice on how to stay active and reduce sedentary behavior while at home following online exercise classes, and using video- or app-guided aerobics training [available at https://www.euro.who.int/en/health-topics/health-emergencie s/coronavirus-covid-19/publications-and-technical-guidance/nonco mmunicable-diseases/stay-physically-active-during-self-quarantine #:~:text=WHO%20recommends%20150%20minutes%20of,equip ment%20and%20with%20limited%20space]. Despite these useful suggestions, physical activity has been significantly reduced during guarantine [2-4]. In addition, women are more likely than men to develop food cravings to cope with stress [2]. This difference has been attributed to the hormonal differences between women and men [2] Food cravings are characterized by a high intake of fat- and sugar-rich foods leading to obesity [2,4]. Obesity is a risk factor for COVID-19 and is associated with high levels of inflammation [2]. Regular physical activity helps in the fight against obesity as it both reduces inflammation and facilitates weight reduction. In addition, regular physical activity helps in managing stress and anxiety.

In the current pandemic situation it is important to find strategies for coping with stress, and also ones specifically dedicated to women, including social support, stress management and, when appropriate, psychological support (Table 1). Gendered differences associated with COVID-19 are present not only at the biological level, but also at the psychological, social, and societal levels [2,4]. Yan et al. found that strong risk factors for stress in women were poorer health, a worsening local pandemic status, a desire for more knowledge about COVID-19, problems relating to non-COVID

TABLE 1 Key points regarding physical activity in managing stress during and after COVID-19 pandemic restrictions

During quarantine and isolation

- Reduce sitting time (i.e., watching TV, sofa time)
- During smart working and distance learning take frequent pauses and stand up
- Contact friends using appropriate technologies
- Perform low-impact physical activities after online classes
- Involve friends/family in online gym classes
- Contact psychological support online
- Perform relaxing activities (i.e., yoga, chi-kung, tai-chi)
- Watch and follow workout videos on YouTube

After quarantine and isolation

- Go outside
- Take daily short walks, possibly with friends
- Go running, possibly with friends
- Start or resume gym/pool activities
- Use a step-counter to monitor exercise
- Download smart phone apps and start following a fitness program
- Choose a variety of physical exercises to avoid monotony
- Play with children
- Go out in the fresh air and enjoy the sunshine

healthcare situations, and inability to work/study [5]. These data suggest that although women are resilient, prevention measures specifically dedicated to women's health are needed. It may well be, however, that in countries with lower resources these options are not available.

KEYWORDS

COVID-19, physical activity, women

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CONFLICT OF INTEREST

None.

DATA AVAILABILITY STATEMENT

Data sharing is not applicable to this article as no new data were created or analyzed in this study.

AUTHOR CONTRIBUTIONS

Anna Vittoria Mattioli: Conceptualization (equal); Data curation (equal); Writing-original draft (equal); Writing-review & editing (equal). Francesca Coppi: Conceptualization (equal); Writing-review & editing (equal). Sabina Gallina: Conceptualization (equal); Writing-review & editing (equal).

Anna Vittoria Mattioli¹ (o Francesca Coppi² Sabina Gallina³

¹Surgical, Medical and Dental Department, University of Modena-Reggio Emilia, Modena, Italy ²Cardiology Division, Azienda Ospedaliero-Universitaria di Modena, Modena, Italy

³Department of Neuroscience, University of Chieti-Pescara, Chieti, Italy

Correspondence

Anna Vittoria Mattioli, University of Modena and Reggio Emilia, Via del Pozzo, 71 41100 Modena, Italy. Email: annavittoria.mattioli@unimore.it

ORCID

Anna Vittoria Mattioli https://orcid.org/0000-0003-1487-9530

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