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Letter to Editor: Vicarious traumatization in the general public, members, and non-members of medical teams aiding in COVID-19 control

With great interest we have read the recent article entitled" Vicarious traumatization in the general public, members, and non-members of medical teams aiding in COVID-19 control" which was published in your valuable journal (Li et al., 2020). We want to congratulate the authors for this successful article, and make some contributions. The psychological problems associated with working during COVID-19 are presented in this article. It may be argued that the most important result of this paper is that, these disorders are more prevalent in non-members of medical teams than in frontline healthcare professionals.

Because of the overwhelming physical and mental demands, it is essential to protect the frontline Healthcare professionals (The, 2020). Up to date psychological problems during COVID-19 in frontline healthcare workers is taken into consideration (Kang et al., 2020; Chen et al., 2020). In all these studies, unacceptable status has been reported for frontline healthcare workers alone or compared to other workers and even their citizens in society. Following we summarized the results of some studies in relation to mental status of healthcare professionals during COVID-19.

Chen et al. studied the Medical staffs' need for mental healthcare programs during COVID-19. In this paper the authors declared the urgent need of studied staffs to interventions related to their mental status (Chen et al., 2020). In another study by JZ et al. the mental health of 230 medical staff in a tertiary infectious disease hospital for COVID-19 was reported. The researchers concluded that, during COVID-19 epidemic, the incidence of anxiety and stress disorder is prevalent among participants (Huang et al., 2020). In a recent study, Nursing Staff in Wuhan city during the 2019 Novel Coronavirus Disease Outbreak was studied in terms of their mental parameters (Kang et al., 2020). Also Due to lack of required personal protective equipment in Iran, frontline healthcare professionals despite of having good knowledge about COVID-19 have not had a good situation both physically and mentally (Nemati et al., 2020; Takian et al., 2020). So in this situation a national study, suggested psychological interventions specially for medical staffs (Shojaei and Masoumi, 2020). Almost all of the results are contrary to Li et al. study (Li et al., 2020). The bad situation of the frontline staffs in comparison to the general public in terms of mental parameters was also repeated in previous infectious epidemic (Park and Park, 2020).

For conclusion, we think that one crucial statistical issue goes unnoticed in Li et al. study which can match their study with past studies.

As shown in Table 1, the groups under study are heterogeneous in most general characteristics, including gender, age, Hospital, Departments, Professional titles, Marriage, Single-child. This heterogeneity can distort the results of Table 2. When the existing experimental units are not homogeneous, grouping the experimental units into blocks of homogeneous units reduces the variance of the experimental error as well as the range of validity for inference about therapeutic effects. This is valid when the confounding variables are qualitative and this is known as the random block model. This model can be used in this article to adjust the gender, hospital, Departments, Professional titles, Marriage and Single-child variables (Kutner et al., 2005).

When the confounding variable is quantitative, using Analysis of covariance (ANCOVA) model is suggested. It is suggested that covariance analysis can be useful in correcting bias with observational data. With such data, the study groups may be different with respect to the concurrent variable, and this may be contrary to the comparison of the groups. The ANCOVA model can be used to modify the effect of age in this article (Kutner et al., 2005). Appropriate transformations can also be used to normalize the data according to the data conditions (Kutner et al., 2005).

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.bbi.2020.04.006.

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