

Peer Review File

Article information: <http://dx.doi.org/10.21037/jphe-20-61>

Review Comments:

Comment 1: - Line 32: missing 'there' between "recently" and "has" at end of line

Reply 1: Thank you for pointing out this grammar issue. We added "there" between "recently" and "has" as advised.

Changes in the text: See details in Page 2, line 49.

Comment 2: - Line 34: Given this is a large part of the narrative in this paper, I think some more discussion of the frequency of gambling problems amongst firefighters would strengthen the argument. Are there statistics on how many firefighters report gambling addiction?

Reply 2: Thank you for such helpful suggestions. We added the following discussion of the trend of gambling issues amongst U.S. firefighters. "Despite limited statistical report about the number of firefighters with gambling addiction in U.S., there is an upward trend of gambling addiction prevalence in the Australian fire service [1]. Previous research has found that 2% of U.S. military personnel reporting gambling problems, twice as high as in the general population [2]. Considering that gambling is an alternative way to cope with stress among high-stress demanding occupations, the similar upward trend of gambling problems amongst U.S. firefighters could be expected to be in line with U.S. military personnel."

Changes in the text: See details in Page 2, line 52 to 58.

Comment 3: - Line 72: Suggestion to include references and discussion of previous literature to discuss this point

Reply 3: Thank you for your comment. We added the following discussion of how previous studies will be in support of this claim. "Previous research has shown the comorbidities of gambling problems with other mental health issues and addictive behaviors like substance use problems [3]. This finding demonstrates that the regulation of distress through gambling is in relation to mental disparities. The co-occurrence of mental disorders and addictive behaviors could be explained by peer influence amongst the fire service."

Changes in the text: See details in Page 4, line 95 to 99.

Comment 4: - Line 73: I think overall the narrative of the introduction works well, but some more information on the link between gambling problems and mental health status would strengthen this argument

Reply 4: Thank you for advice. We added the following information to improve the association between gambling problems and mental health status. "Additionally, evidence demonstrates that gambling problems may be accompanied by clinical mental health disorders including psychiatric disorders, namely problem gambling [4]."

Changes in the text: See details in Page 4, line 99 to 101.

Comment 5: - Line 75-80: This section needs much more discussion to fully argue the stance of this paper. Suggestion to explain or define the social-ecological conceptual framework for the

reader and discuss how this will be used to understand gambling problems in firefighters. This section would also benefit from some suggestions for future research on how to integrate the social-ecological framework moving forward

Reply 5:

Thank you for the concerns about what the social-ecological framework is and how this framework works. We added the following definition and example. “The social-ecological framework refers to the surround of the individual of interest [5], that is, the interaction between environment and relationship among people. Those relationships and the effects on their lived environment are not only shaped physically (e.g., structure), but also politically and culturally (e.g., cultural and religious beliefs). For example, the macho culture of remaining silent and stopping complaints toward mental disorders and addictive behaviors in the fire service may greatly contribute to their gambling development that is used to release the pressure. Such macho culture of keeping silent also discourages firefighters to reach out for help.” from line 104 to 111.

We also specified the intervention strategies like consulting programs and on-the-job site support would benefit stopping gambling problems in the fire service according to a constructed social-ecological framework.

Changes in the text: See details in Page 4, line 104 to 111. Also, see details in Page 5, line 113.