

Review of: "The Impact of physical exercise and alcohol conditions on self-reported health among cancer patients? An analysis of the Health Information National Trends Survey 2019"

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Potential competing interests: No potential competing interests to declare.

1. Abstract:

The sentence: "Sleep hours, physical exercise, and alcohol conditions were report to reduce or increase the detrimental side effects of cancer treatment" is unclear. Correction needed: were report to were reported.

"This study was aimed to evaluate the associations of outcomes of physical exercise and alcohol conditions". What/which alcohol conditions? Better state what's being investigated.

Keep the statistics within a 2 decimal limit.

2. Introduction:

Overall good and informative but the language needs to be improved. Some sentences are unclear and confusing.

"There were some sleep disturbances, mental disorders, and pain among cancer patients." I am not sure what this sentence means and/or what its point is.

"Multiple current studies documented opioid use disorder". Multiple/various studies documented.

"Thus, it is difficult to control and mitigate the disadvantages of cancers". What do you mean by "disadvantages of cancers"? Please rephrase.

"Physical exercises were confirmed to be beneficial to cancer patients." Which physical exercises? Do you mean physical activity? If so change accordingly.

"A systematic review with meta-analysis indicated people with advanced cancer engaged in exercise experienced an increase in quality of life..." Unclear sentence. Suggestion: A systematic review and meta-analysis indicated that people with diagnosed with advanced cancer and who engaged in exercise..."

"Alcohol conditions were confirmed to be harmful to cancer patients". Again, which alcohol conditions?

"Two studies documented the causal relationship between alcohol intake and glucose levels". Was the causal relationship

positive/negative? When referencing someone's work, please be more descriptive on their findings.

"The purpose of this study is to determine whether benefits of physical exercise can tradeoff disadvantages of alcohol conditions in the health change among the cancer patients." What do you mean by tradeoff? This sentence is unclear and needs rephrasing.

3. Methods

After dropping the missing values of the variable "time since diagnosed with cancer", 826 observations were obtained. All the variables related to this study were decoded the responses options with "missing data", "inapplicable", "unreadable or non-conforming numeric response", and "question answered in error". Very unclear. The methods section needs some work.

Dependent variables

Measuring the benefits of physical activity through the use of one question does not make for a reliable assessment. The question itself is biased and with its wording, may lead to more positive answers.

Socioeconomic factors

"The continuous age (n= 826) was grouped by aged <65 years (=0) and aged ≥65 years (=1). Gender (n= 819) was divided into female (=0) and male (=1)." No need to provide coding for gender and age groups (=1/=2).

"Race/Ethnicity (n=737) was distributed by Hispanic (7.06%), Non-Hispanic White (78.43%), Non-Hispanic Black or African American (8.55%), Non-Hispanic American Indian or Alaska Native (0.27%), Non-Hispanic Asian (2.31%), Non-Hispanic Native Hawaiian or other Pacific Islander (0.14%), and Non-Hispanic Multiple Races Mentioned (3.26%)". This looks more like a direct copy and paste from a government form than a description of the actual ethnicities involved in the study. Better to simplify the ethnicity in groups as: Caucasian, Hispanic, African American, Asian, etc. Needs rephrasing.

Supplementary Table 1: Keep decimal vales to 2. Table is confusing, what does Ref.:no means? I see no need to keep it on the table.

Figure 4: "Cancer patients with Higher education was also associated with a 437.9% increase in helping sleep (MOR =5.379, 95% CI: 2.939-9.844, $p=0.000$) than cancer patients without". Confusing and unclear. Grammar issues. The use of wrong grammar and verb tenses occurs throughout the whole text.

Discussion

I am not sure if the study provided the valuable insights it asserts. Physical activity and alcohol consumption were measured by 2 questions which in turn is insufficient to draw any valid conclusion on associations and effects. Besides that, the language is unclear and misleading.

