Reviewer’s report
Title: Cognitive medicine - a new approach in health care science

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Reviewer: Gary Christopher

Reviewer's report:
BPSY-D-17-00290

Abstract

I do not feel this is the best summary of the paper. It could be a little more focused and definite in its message.

Main body

As with the Abstract, the opening paragraph could be more attention grabbing. What exactly is 'cognitive medicine'?

The statement, "working-memory system, which is one of several components of executive functioning," is not particularly accurate.

This section seems to flit all over the place. One minute the focus is briefly on attention, then working memory, then long-term memory. It is a little difficult to follow. There needs to be a stronger overall logic here.

p.7 ln.1, "Cognitive impairment is known to be a major denominator of disability": Should this read "determinant" rather than "denominator"?
There is an occasional lack of an evidence base (e.g., However, cognitive impairment is related to many other diseases and thus often represents a silent and underreported condition.). Need to provide appropriate references.

What is meant by, "Under the umbrella of cognitive medicine fragmented (methodological) knowledge about cognition and its relationship to the whole spectrum of medical conditions are integrated over the life course." This is not at all clear.

Many of the statements are not fully qualified (e.g., "The new classification system for mental disorders, The Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) [17], is well in agreement with the cognitive medicine perspective, in that categories such as "dementia disorders" have been substituted by the term "neurocognitive disorders.").) More of an explanation is needed to make the necessary leap.

"In short, cognitive medicine fills the gap between (cognitive) neuropsychology and medicine which, with some exceptions, has an oversimplified approach to cognition and cognition-related disability." In what way is it over-simplified?

"Cognitive medicine is aiming at obtaining specific knowledge about the relationships between disease processes, cognitive functions and disabilities in a broader medical context than is represented by the current memory clinic approach focused on Alzheimer's disease and related disorders." Not clear what is meant by this.

"Under the umbrella of cognitive medicine, the most urgent need is to establish valid and reliable tools for identification of cognitive impairment in various medical conditions." Is this entirely accurate?

Overall, phrasing could be a little clearer (e.g., p.4 ln.54).

On the whole, there are too many holes in the argument. There needs to be more evidence of a consistent, solid argument underlying the structure. Some points need to be elaborated upon in
order to make a stronger case. The level of detail is a little sporadic. A more transparent evidence base is required.

I feel this is a good idea. However, a stronger argument is needed to justify it.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.
Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.
Unable to assess

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.
No

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