Reviewer's report

Title: Medicinal Cannabis for Psychiatric Disorders: A Clinically-Focused Systematic Review

Version: 0 Date: 13 Jun 2019

Reviewer: Anthony H. Ecker

Reviewer's report:

The manuscript entitled "Medicinal Cannabis for Psychiatric Disorders A Clinician-Focused Review" is a narrative review that aims to present findings of the extant literature on medicinal utility of cannabis for a set of mental health conditions with a focus on applicability to clinicians. This topic is important, as few resources exist to summarize the literature for clinicians to communicate to patients and make clinical decisions. However, as written, the current review has several problems that detract from this purpose, making the contribution of this paper to the literature unclear as written. Broadly, inconsistency throughout the manuscript in the presentation of findings and interpretation of these findings and unclear definitions (e.g., generalized anxiety) make interpretation of the literature through this review difficult. Specific concerns are outlined below:

1. It is noteworthy that the title sets this paper up to be a clinician-focused review, but this aim is largely missing from the paper. The introduction lacks rationale for carrying the review out in this way, how a clinician-focused review would differ scientifically from other types of reviews, and what types of clinicians this is focusing on. Further throughout the paper, some of the conclusions aimed toward clinicians seem to lack sufficient rationale based on the data the authors claim to focus on. For example the statement "THC should be avoided in people with MDD or low mood" on page 9, although a reasonable recommendation, given the studies this claim was based on (i.e., epidemiologic study) such a causal effect cannot be implied.

2. The section on the historical context detracts from the scientific, clinician focus of the paper. The authors' use of the term "evidence" for the use of medical cannabis historically is also misleading as these are not scientific studies showing medicinal benefit for mental health disorders as currently defined. It is recommended that this section be substantially reduced or removed, and space used in the introduction for expanding on the scientific rationale for the review.

3. Understandably this topic is fraught with political issues surrounding legality, however, this paper would be strengthened by refocusing statements (especially on page 5) on the scientific merit of medicinal cannabis and avoiding phrases like "liberal and tolerant" and focusing solely on scientific rationale for potential medical applications.

4. On page 6 authors describe other reviews but do not cite them.
5. Clearer description of the differences between excluded synthetic cannabinoids and the those included in the review is necessary. Especially given that the majority of the studies reviewed are not necessarily whole-plant smoked cannabis, clearer descriptions why CBD oils for example, are included in the review and considered medical cannabis use.

6. Throughout the review, authors should more clearly describe the conditions and how they are being defined. What are the diagnostic criteria? Most notably, the generalized anxiety section seems to alternate between descriptions of generalized anxiety disorder, which is characterized by uncontrollable worry, general anxiety, which is not a diagnostic category but a way do describe elevated anxiety more broadly, and specific types of anxiety (e.g., social anxiety).

7. Within each disorder section, the presentation of different types of cannabinoids makes it difficult to follow what is a pre-clinical, lab type study vs. a study on medicinal cannabis as defined by the authors. Perhaps subheadings for different types of studies?

8. Some context from the broader literature is missing, especially from the anxiety section. There is a large body of work demonstrating the potentially maintaining effects on anxiety of cannabis (Buckner, Heimberg, Ecker, & Vinci, 2013). In some sections (e.g., depression, psychotic disorders) this type of work is somewhat included, but excluded elsewhere.

9. Define outcomes throughout. For example "PTSD scores" is unclear. What scores? What measure?

10. When describing the secondary effects of depression on page 9, also describe the primary outcome of the study reviewed.

11. The section describing an ongoing trial (page 10) goes into much detail on a study with no results currently, especially given the lack of detail for other studies in the review.

12. The clinical and occupational safety considerations section seems out of place. Especially after a review that largely found little conclusive evidence for clear-cut uses of medical cannabis. This should be more clearly stated before the occupational/safety considerations, because as written it implies more clear evidence for the use of MC for the disorders covered.

Reference cited in this review

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