Reporting the results of the MMAT (version 2018)

In the version 2018, we advised not to present an overall score. This decision was made from the literature that discouraged to use metrics because it is not informative. By presenting a single number, it is not possible to know what aspects of studies are problematic. We often see people presenting a global score and nothing else in the results or discussion or description of included studies. This often raises the question of why quality appraisal was performed.

This suggestion is, however, problematic for reporting the results of the MMAT. Several MMAT users have contacted us for advice to report their results. If there is a need to report an overall score, here is a suggestion based on the previous version of the MMAT:

For each retained study, an overall quality score may not be informative (in comparison to a descriptive summary using MMAT criteria), but might be calculated using the MMAT. Since there are only a few criteria for each domain, the score can be presented using descriptors such as stars (*) or %:

5***** or 100% quality criteria met
4 **** or 80% quality criteria met
3 *** or 60% quality criteria met
2 ** or 40% quality criteria met
1 * or 20% quality criteria met

For mixed methods studies, since there are 15 criteria to rate (instead of 5), the premise is that the overall quality of a combination cannot exceed the quality of its weakest component. Thus, the overall quality score is the lowest score of the study components. The score is 20% (*) when QUAL=1 or QUAN=1 or MM=1; it is 40% (**) when QUAL=2 or QUAN=2 or MM=2; it is 60% (***) when QUAL=3 or QUAN=3 or MM=3; it is 80% (****) when QUAL=4 and QUAN=4 and MM=4, and it is 100% (*****) when QUAL=5 or QUAN=5 or MM=5; (QUAL being the score of the qualitative component; QUAN the score of the quantitative component; and MM the score of the mixed methods component).

Regarding questions on cut off value, we have not studied values that could characterize low, medium or high quality studies. The categories are arbitrary, but useful for performing qualitative or quantitative sensitivity analysis. We have seen some papers with 2 categories (lower vs higher quality) or 3 categories (e.g., low, medium, and high). What is important is to clearly describe how the results of the appraisal were interpreted and used in the review (transparency).

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Examples of tables presenting the results of the MMAT:

Table presenting the ratings of each study

Studies	Criteria from the Mixed Methods Appraisal Tool																								
	1.1	1.2	1.3	1.4	1.5	2.1	2.2	2.3	2.4	2.5	3.1	3.2	3.3	3.4	3.5	4.1	4.2	4.3	4.4	4.5	5.1	5.2	5.3	5.4	5.5
Author, date	0	1	1	1	1											1	0	1	1	1	1	1	1	1	1
Author, date											0	1	1	1	1										
Author, date					1	1	1	0	1																
…..																									

Table of characteristics of the included studies with a column on the overall score of each study

Studies	Country	Population	Intervention	Comparator	Outcome	….	Quality
Author, date							*****
Author, date							*
Author, date							***
…							