

Transparent Reporting for Essential Oil & Aroma Therapeutic Studies (TREATS) Checklist



In addition to conventional research quality appraisal tools, research involving essential oils and aromatherapy should meet requirements for validity and reliability. Complete reporting facilitates study replication and progression for programs of research. For clarity, use the companion TREATS explanatory document during this critique process.

As you fill in the tool, we suggest you use X's. The columns are designed to show the value of the X. So, in the first column, an X = 1, fully met. And in the middle column, X = 0.5 or ½ a point. And, finally, in that last column, the X = 0 points. The explanation and comment section is there for you to write those things that might help you remember ‘why’ you thought that X went in that column. When used as a critique tool, these comments serve as feedback to the researcher.

Reviewer:

Article reviewed:

Delivery method: Topical ____ **Inhalation** ____ **Both** ____

Category (see Explanatory document for more details of each item)	Met =1 or *N/A	Partially met = 0.5 (Explain)	Not Met = 0	Explanations/ Comments/ Questions
Section 1: Essential oils (EO)				
1	Essential oil (EO) binomial (botanical) name (<i>Genus species</i>)			
2	Production method			
3	Plant part			
4	Cultivation Method			
5	Country of Origin			
6	Source			
7	Batch number of the EO			
8	Identification of plant constituents			
	Total Section 1 (possible points = 8)			
Section 2A: Topical Application- Complete ONLY if topical delivery method used				
1	Dilution of EO (if applicable)			
2	Dose of EO			
3	Body surface area EO contacts			
4	Frequency of EO			
5	Duration of EO			
6	Description of control or placebo			
7	Carrier(s) name, including full binomial			
8	Source of carrier or delivery system			
	Total Section 2A (possible points = 8)			
Section 2B: Inhalation- Complete ONLY if inhalation delivery method used				
1	Mode of inhalation			
2	Dose of EO			
3	Frequency of EO			



Category (see Explanatory document for more details of each item)		Met =1 or *N/A	Partially met = 0.5 (Explain)	Not Met = 0	Explanations/ Comments/ Questions
4	Duration of EO				
5	Description of control or placebo				
6	Carrier(s) name, including full binomial *Mark N/A if no carrier used				
7	Source of carrier or delivery system				
Total Section 2B (possible points = 7)					
Section 3: Aromatic Intervention					
1	A clear description of aromatherapy interventions, outcome measures, and adherence to the researcher's protocol Give partial credit if the description of intervention & outcome measures is cited but not clear enough to replicate, or the research protocols were not followed				
2	The rationale for EO(s)				
3	Theoretical or conceptual framework				
4	Professional aromatherapist consulted				
5	Safety considerations				
6	Report of allergic and adverse reactions				
7	Safety consideration of EO storage during trial				
Total Section 3 (possible points = 7)					
Section 4a: Olfactory function questions (Asked prior to trial)					
1	Anosmia				
2	Previous use of EOs				
Total Section 4a (possible points = 2)					
Section 4b: Olfactory bias questions if practical in an experimental setting (Asked as part of the trial. If not asked, the researcher may give an explanation for excluding these steps. Give partial credit if mentioned in the limitations section).					
1	Olfactory testing				
2	Odor recognition testing				
3	Participants' expectations stated				
4	Odor preference bias				
5	Perceived aroma intensity				
6	Any adverse effect from olfaction testing				
Total Section 4b (possible points = 6)					

**Please transfer points from each section in the table below. Add points to obtain total.

*FOR N/A—when NA is used to describe the non-applicability of something within this tool, that should be taken out of the calculation and the total number changed (e.g., 16/29 if NA used for 2B: 6 Carrier(s) name and using the INHALATION only pathway).

Section (Points)	Total section points INHALATION	Total section points TOPICAL	Total section points Topical AND Inhalation
Section 1 (8)	/8	/8	/8
Section 2 (7-15)	/7	/8	/15
Section 3 (7)	/7	/7	/7
Section 4a (2)	/2	/2	/2
Section 4b (6)	/6	/6	/6
Total (30-38) Poor, Fair, Good	/30	/31	/38

0-10 = Poor; 11-20 = Fair; 21-38 = Good

(These ratings serve as guidance. Additional comments & conclusions are necessary to qualify these ratings. For example: “16/30—Fair quality for aromatherapy practice in this study with acknowledgment of best practice observed for essential oil reporting and safety. No mention of how olfactory bias or function was accounted for.”

ADDITIONAL REVIEWER COMMENTS: