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Editorial

How to Scientifically Critique a Literature for Make a Sense of a Randomized Controlled Trial: Question of a Young Researcher

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Literature Critiquing is a scientific process of evaluation and interpretation of a literature. At the very beginning of a literature review, it is necessary to go through the background of that respective article. It will create an image in mind about the specific topic. Usually, Critical Appraisal Skills Program (CASP) is used to make a sense of Randomized Controlled trial (RCT). This literature critiquing technique consisted with 3 different sections including 11 questions. The first section titled "Section A: Are the results of the trial valid?" consisted with 6 questions. The second section titled "Section B: What are the results?" consisted with 2 questions. In addition, the 3rd section titled "Section C: Will the results help locally?" consisted with rest of the 3 questions. "Section A" and "Section B" used to measure the internal validity. On the other hand, "Section C" used to measure the external validity of a RCT. For appraisal of a literature, the researcher must need to assure the reference of the authors of that respective article [1].

As a researcher, my research interest is in "Urinary Incontinence of Women". Therefore, my probable concept to critiquing a literature using the CASP is described in the following:

"Section A: Are the results of the trial valid?"			
"1. Did the trial address a clearly focused issue?"	"Yes" "Can't tell" "No"	"HINT: An issue Can be focused in terms of • The population studied • The intervention give • The comparator given The outcomes considered"	Comments (as an example) • The trial described about the population studied (eg, Stress urinary Incontinence among the Postpartum Women) • The trial properly described about the intervention given • The study considered the objective or subjective measurements tools to measure the primary and secondary outcome. If the study used only subjective measurement tool, then needs to describe about the assurance of reliability and validity of that respective measurement tool which would eliminate the bias towards the treatment effect.

"2. Was the assignment of patients to treatments randomized?"	"Yes" "Can't tell" "No"	"HINT: Consider • How this was carried out • Was the allocation sequence concealed from researchers and patients"	Comments (as an example) • The study assigned the patients to treatment randomized by diagnostic procedure through clinical parameters, inclusion and exclusion criteria avoiding confounding variable. • The study conducted randomization by Random Allocation Software (RAS) & block randomization (usually the study mentioned about the randomization process) • Group allocation was concealed by a blinded 3rd person.
"3. Were all of the patients who entered the trial properly accounted for at its conclusion?"	"Yes" "Can't tell" "No"	"HINT: Consider • Was the trial stopped early • Were patients analyzed in the groups to which they were randomized"	Comments (as an example) • All the patients who entered the trail properly accounted for its conclusion; in other words the trial assured the Intention-to-treat analysis (ITT). • The trial clearly mentioned about the completion of intervention period. • The trial mentioned about the patients analyzed in the groups to which they were randomized.
Is it worth continuing?			
"4. Were patients, health workers and study personnel 'blind' to treatment?"	"Yes" "Can't tell" "No"	---	Comments (as an example) • Both the therapist and patients were blinded towards the treatment. or Neither the respondents nor the therapist was blinded towards the treatment group. • Moreover, random allocation was conducted by a blinded 3rd person which would minimize the bias. • The statistician was blinded
"5. Were the groups similar at the start of the trial?"	"Yes" "Can't tell" "No"	"HINT: Consider • Other factors that might affect the Can't Tell outcome, such as; age, sex, social class?"	Comments (as an example) • The groups were similar at baseline and there were no significant differences between the groups. Or • The groups were similar at baseline and there were no significant differences between the groups in terms of respective variables.

"6. Aside from the experimental intervention, were the groups treated equally?"	"Yes" "Can't tell" "No"	---	Comments (as an example) • The control group didn't receive any treatment. Therefore, outcome of experimental group is difficult to compare with single intervention. Or • Both the groups receive basic intervention which assures the groups were treated equally. Therefore, the outcome indicates the experimental intervention only.
Section B: What are the results?			
"7. How large was the treatment effect?"	"Yes" "Can't tell" "No"	"HINT: Consider • What outcomes were measured? • Is the primary outcome clearly specified? • What results were found for each outcome?"	Comments (as an example) • The primary outcome considered by the study was measurement of severity of SUI. The primary outcome measured by the translated and validated International Consultation on Incontinence Questionnaire (ICIQ). Or Any other subjective or objective measurement tool. • The intervention group showed better outcome according to each outcome measure within and in between the groups.
"8. How precise was the estimate of the treatment effect?"	"Yes" "Can't tell" "No"	"HINT: Consider • What are the confidence limits?"	Comments (as an example) • Effect size of intervention need to mention. For example level of significance of intervention considered the p value ≤ 0.05.
"Section C: Will the results help locally?"			
"9. Can the results be applied to the local population, or in your context?"	"Yes" "Can't tell" "No"	"HINT: Consider whether • The patients covered by the trial are similar enough to the patients to whom you will apply this? • How they differ?"	Comments (as an example) • The study results would be possible to apply to the similar studied population. The just might: A. The present literature conducted among the women with SUI who will be able to participate in outpatient unit. B. Those who will be unable to attend the outpatient session will allow to do home Pelvic Floor Muscle Training (PFMT).

"10. Were all clinically important outcomes considered?"	"Yes" "Can't tell" "No"	"HINT: Consider whether • There is other information you would like to have seen? • If not, does this affect the decision?"	Comments (as an example) • The researcher may critique the literature as- better to use objective measurement Pad test to measure the amount of SUI.
"11. Are the benefits worth the harms and costs?"	"Yes" "Can't tell" "No"	"HINT: Consider • Even if this is not addressed by the trial, what do you think?"	Comments (as an example) • The intervention is not harmful or doesn't have any side effects. • The treatment will be cost effective, if it would apply.

Bibliography

1. Critical Appraisal Skills Programme. CASP (insert name of checklist i.e. Randomised Controlled Trial) Checklist (2018).

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