PP86 Development Of A Tool To Assist In The Identification Of Study Designs For The Purposes Of Health Technology Assessment

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Introduction: As the most internally rigorous design, randomized controlled trials (RCTs) are the gold standard for assessing the efficacy and safety profile of interventions. Increasingly, health technology assessment (HTA) considers evidence from non-randomized studies. Guidance recommends synthesizing different study designs separately due to their different inherent biases/limitations. But when authors or reviewers misclassify studies, this could affect which studies are included and therefore have an impact on review results.
Methods: We are conducting a methods project to (i) identify a clear study design classification system, (ii) explore whether its use produces consistent study design categorizations among reviewers, and (iii) iteratively improve the classification system. We performed a pragmatic web-based search for study design categorization tools and used the resulting schemas to develop a clear algorithm for use by reviewers of all levels of experience, specifically in reviews of treatment interventions. Next, we tested tool consistency and user experience by web-based survey in a small internal sample of reviewers, each independently using the system to categorize 18 published studies.
Results: A median of seven reviewers (range four to eight) categorized each study. Rater agreement using the chart varied widely, with 100 percent agreement on the designs of three studies (17%), and at least 75 percent of reviewers agreeing on one design for nine studies (50%). The most common agreement was reached on RCTs and non-randomized controlled trials. The most common sources of disagreement were between different types of cohort studies and between case series and controlled cohort studies, largely due to inconsistent reporting. We also identified several improvements: the wording of prompt questions, the ordering of designs, and the addition of new elements.
Conclusions: The classification system as initially designed led to too much variation in study design categorization to be useful. Consequently, we present a revised version that we now aim to evaluate in a larger sample of reviewers. Further research will also investigate whether using the tool would change the results of systematic reviews, using a small sample of published reviews.

PP87 A Descriptive Study Of The Use Of Data Visualization In Full Health Technology Assessment Reports: 2021 To 2023

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Introduction: Data visualization is a powerful communication tool to facilitate the understanding of a complex process or data. Data visualization has been used in health technology assessment (HTA) reports for a long period (e.g., PRISMA flow diagrams, critical assessments, or GRADE). This study aims to investigate the number and manners in which HTA reports have been using descriptive data visualization for the years 2021 to 2023.
Methods: The international HTA database was used to identify and download the HTA reports from the years 2021 to 2023. We applied the database limits: full HTA and completed reports. The records were imported into a Microsoft Excel spreadsheet and screened by eight independent researchers applying the inclusion criteria: full HTA (according to methodological definition), access to the full text, and use of data visualization with a descriptive purpose (we excluded PRISMA flow diagrams, forest plots, and others). The data were observed with the software Power BI. Our analysis included variables such as agency name, country, section, type of visualization, and software.
Results: From the international HTA database, 1,128 records were exported: 89 records were directly excluded from this set as they were tagged as ongoing or other types of reports in the database; 1,039 records were screened. Around 30 percent of records were included for the data visualization screening criteria after fulfilling our inclusion criteria (full HTA and available full text). Finally, 12 percent of the reports included data visualizations for a descriptive purpose of their results or conclusions. The countries with a higher number of records included in this analysis were Germany (28%), Canada (18%), the UK (16%), and Spain (11%).
Conclusions: In our sample, we observed that data visualization is not widely used so far to describe outcomes and/or conclusions from HTA reports. An additional finding was the number of records tagged as full HTA in the international HTA database that were excluded as non-full HTA from our study.

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