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17TH ANNUAL CHILD HEALTH RESEARCH DAYS

Nutrition for a Changing World

The Science of Nourishing the Next Generation

CHRD 2021: Abstract & Poster Submission Form

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Research Category:

- Basic Science
- Clinical
- Community Health / Policy

What was your role in the project?

- Design
- Perform Experiments
- Analyze Data
- Write Abstract

Presenter Status:

- Undergraduate Students
- Masters Student
- PhD Student
- Post-Doctoral Fellows
- Residents
- Non-Trainee

Title

Risk of bias in cluster randomized-controlled trials: a methodological review of child health trials published in 2007 and 2017

Background

Cluster randomized-controlled trials (RCTs) are preferable when the individual unit of allocation is not feasible to address research questions. Accumulating evidence suggests that cluster RCTs are often poorly designed and executed leading to potential risk of bias.

Objective

To investigate the sources of bias and examine if the proportion of bias has changed in a sample of child health cluster RCTs published in 2007 and 2017.

Methods

We searched the Cochrane Central Register of Controlled Trials to identify relevant samples of child health RCTs published in 2007 (n=300) and 2017 (n=300). One reviewer selected all cluster RCTs in health research conducted among individuals aged 21 years and below in 2007 (n=20) and 2017 (n=38) for inclusion and another reviewer verified them. We extracted and analyzed 58 trials for change in the proportion of trial characteristics and level of bias using Pearson/Fisher Exact tests. The association between trial characteristics and evidence of bias was assessed in a logistic regression model.

Results

Most of the cluster RCTs were from Europe (21, 36.2%) and North America (14, 24.1%). We observed a difference in the proportion of the trial characteristics between 2007 and 2017. Of the sources of bias investigated, recruitment bias (33, 57%) accounted for most of the bias observed with an increase between 2007 (12, 20.6%) and 2017 (21, 36.2%). Of the 58 trials, 37 (63.7%) showed evidence of bias with the proportion of bias observed in 2007 (65%) similar to 2017 (63%). None of the trial characteristics was statistically significantly associated with evidence of bias in cluster RCTs.

Conclusion

This data suggests that the level of bias has not changed within the studied timeframe and recruitment bias is the main source of bias in cluster RCTs.

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- For each author, please click "[+] Add Item" and provide the author's information

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