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Research Waste when Justifying New Research

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When do researchers have to justify a new study?

- Internal:
 - During the ideation phase
- External:
 - In your proposal to research funder(s)
 - In your submission to ethic committee
 - In the Introduction section of your manuscript submission to relevant journal(s)
 - Presentations about your work

How are researchers currently justifying their new study?

- **Method: Systematic review**
 - Literature search:
 - Seven databases searched: MEDLINE, EMBASE, CINAHL, Web of Science, Social Sciences Index, Arts & Humanities Citation Index, Cochrane Methodology Register
 - Reference lists checked and experts asked for relevant literature
 - Search period: Inauguration to 28th June 2015 (currently being updated)
 - Keyword themes: 'Earlier'; 'Evidence'; 'Selective'; 'Citation'; 'Cumulative Meta-Analysis'; 'SR'; 'Planning'
 - Inclusion/exclusion criteria:
 - Study type: Primary studies
 - Question: Do clinical health researchers take into account a systematic synthesis of earlier similar trials when justifying and designing a new study, and when placing new results in the context of earlier similar trials?
 - Excluded: Studies evaluating the issue in other scientific disciplines and basic health science

How are researchers currently justifying their new study?

- **Results:**

- Number of hits: 25,997 studies
- Included from reference lists: 421 studies
- Total screened by 17 people based on abstract: **26,418 studies**
- Appraised in full text: 288 studies
- Included: 90 studies
- Identified from their reference lists: 237 studies
- Excluded based on appraisal: 192
- Total included: 135 studies
- Stricter inclusion criteria: Final number included: **74 studies**

How are researchers currently justifying their new study?

Preliminary mapping and results	Number of studies	References
Continue irrelevant research	10 studies	Andrade 2013; Clarke 2014; Fergusson 2005; Haapakoski 2015; Habre 2014; Juni 2004; Ker 2012, Lau 1992, Lau 1995, Poolman 2007
No use or poor use of SR in Introduction	3 studies	Clarke 2013; Jones 2013; Goudie 2010
No references to all studies	5 studies	Goudie 2010; Robinson 2011; Sawin 2015; Schrag 2011; Sheth 2011
Positive, supportive and significant studies are more often cited than negative, critical and non-significant	6 studies	Bastiaansen 2015; Fiorentino 2011; Greenberg 2009; Jannot 2013; Puder 1987; Shadish 1995;
Subjective reasons for choosing references	3 studies	Amancio 2012; MacRoberts 1986; Thornley 2015

How are researchers currently justifying their new study?

Analysis of 8 eligible studies (4 studies included relevant figures)	
Outcome	Result
Average PRCI (prior research citation index)*	About 0.22 = only 22% of relevant prior research cited
Average SSCI (sample size citation index)*	About 0.23 = only 23% of study participants in prior trials acknowledged

* Defined by Robinson K, 2011

Problem:

Three out of four studies and three out of four study participants are not mentioned in new studies!

Thank you

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