

Evidence-Based Research

The project is supported by





Background and Introduction to the COST Action **EVBRES**

Hans Lund Bergen, February 4th, 2019



EVBRES

EVBRES (Evidence-Based RESearch) is a COST Action running from October 17th 2018 to October 16th 2022.

A COST Action is a network dedicated to scientific collaboration, complementing national research funds.

(See https://www.cost.eu/cost-actions/what-are-cost-actions/)





Sustainability of EVBRES is secured by the EBRNetwork



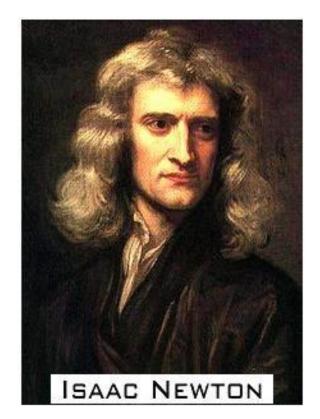




The scientific ideal

"If I have seen farther it is by standing on the shoulders of giants"

Letter to Robert Hooke, 15. February 1676.



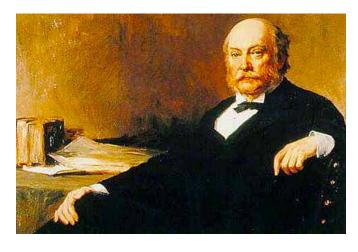
1643 - 1727



The scientific ideal

"If, as is sometimes supposed, science consisted in nothing but the laborious accumulation of facts, it would soon come to a standstill, crushed, as it were, under its own weight......

The work which deserves, but I am afraid does not always receive, the most credit is that in which discovery and explanation go hand in hand, in which not only are new facts presented, but their relation to old ones is pointed out."



Lord Rayleigh at the 54th meeting of the British Association for the Advancement of Science held in Montreal in 1884. (Thanks to I. Chalmers, LV Hedges, H Cooper, 2002)





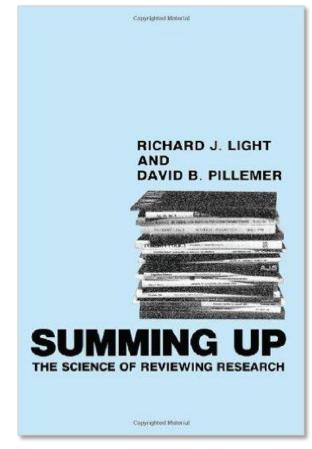
«Why do scientists think that new research is better, or more insightful, or more powerful?

The underlying assumption must be that new studies will incorporate and improve upon lessons learned from earlier work.

Novelty in and of itself is shallow without links to the past....

For science to be cumulative, an intermediate step between past and future research is necessary:

SYNTHESIS OF EXISTING EVIDENCE»



Harvard University Press 1984



The assumption

One would think:
No paper has ever been
published without references to
earlier published scientific
results. What's the problem?



The assumption

"Strictly speaking it seems hard to imagine any research not evidence-based.

At least it seems impossible to imagine that articles published in journals with a high impact factor do not relate to earlier research"

Norwegian Accreditations Committee, in 2014 (nokut.no)





EBRNetwork is preparing a Scoping Review of meta-research evaluating if science is cumulative

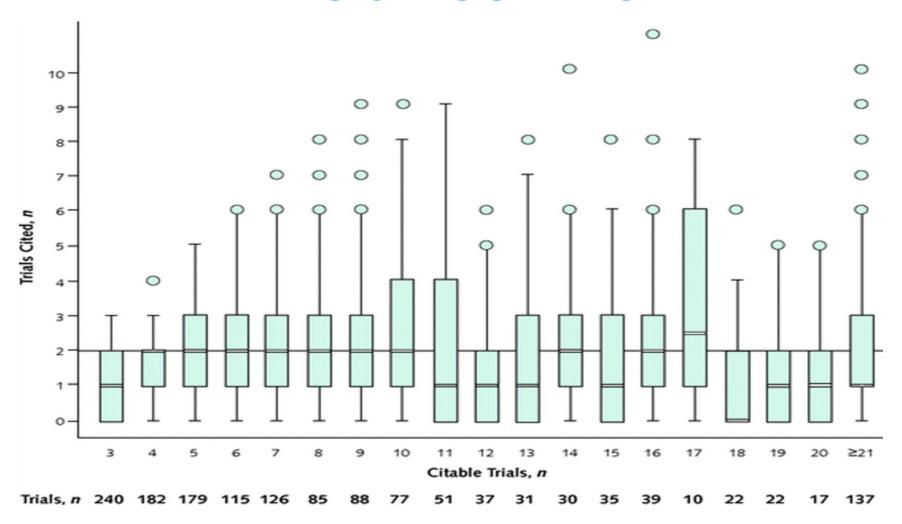


Some of the findings ...

	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 references to all studies	5 studies	Goudie 2010; Robinson 2011; Sawin 2015; Schrag 2011; Sheth 2011
No use or poor use of SR in Introduction	3 studies	Clarke 2013; Jones 2013; Goudie 2010
No use or poor use of SR in Discussion	6 studies	Clarke 1998; Clarke 2002; Clarke 2007; Clarke 2010; Clarke 2013; Helfer 2015

Robinson 2011





A Systematic Examination of the Citation of Prior Research in Reports of Randomized, Controlled Trials



Robinson 2011

Table 1. Number of Reports That Cited 0 or 1 Prior Relevant

Trial

Reports, n	Reports That Cited 0 Trials, n	Reports That Cited 1 Trial, n	Reports That
1523	363	370	741 (49)
1101	254	257	511 (46)
508	138	123	261 (51)
282	79	69	148 (52)
	n 1523 1101 508	n Cited 0 Trials, n 1523 363 1101 254 508 138	n Cited 0 Trials, n Cited 1 Trial, n 1523 363 379 1101 254 257 508 138 123

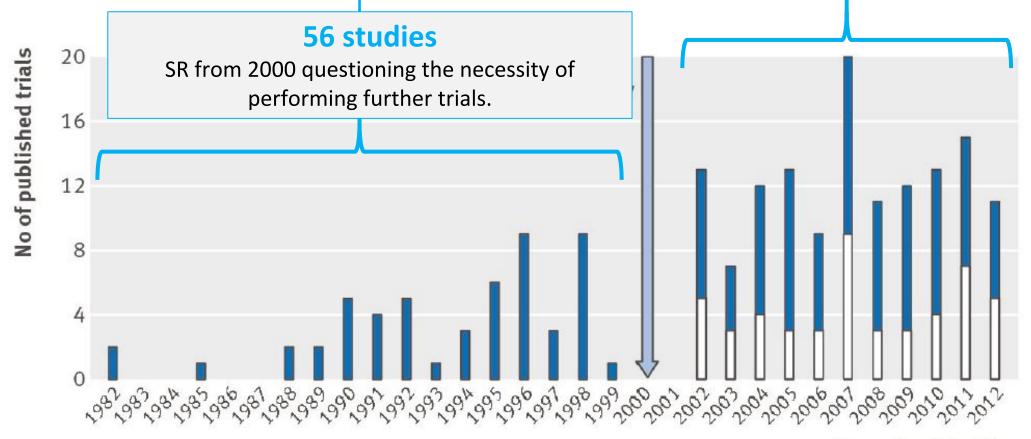
834/1,523 =

55% cited 0 trials





136 NEW studies since 2000 49 clinically relevant 87 REDUND ANT STUDIES





The problem

Meta-research (i.e. research on research) indicates that clinical researchers within health:

- rarely use a systematic and transparent approach to justify new studies
- rarely use a systematic and transparent approach to design new studies
- rarely use a systematic and transparent approach when placing new results in the context of existing results from earlier similar trials





- •To implement «systematicity» and «transparency» in all phases of research.
- To make sure that research is valuable, i.e. "relevant" and "necessary".

EVBRES is an international European-based network aiming to raise awareness of the need to use systematic reviews when planning new studies and when placing new results in context.

EVBRES



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Responses

More than 130 responded:

34 out of 38 possible COST Countries

In addition, individuals from NNCs (Egypt, Gaza, Lebanon, Russia) and IPCs (Australia, Canada, India, South Africa, USA) have joined too.

91 signed up for the meeting in Bergen, Norway February 4th to 6th, 2019 87 from European countries, 2 from NNCs, 2 from ICPS





Action MC

Core Group

Program Management Group

Grants

WG1

WG2

WG3

WG4

STSM

A1 Ethic Committees

A4 Training Schools

A8 Efficient production of SR

Α9 Standard for meta-research

Conference **Grants (ITC)**

A2 Funding Agencies

A3

Medical

Journals

A5

A7

TSs (Delphi)

Handbook

A10 Executing

3.





Thank you

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