Outcome measures and evaluation

SPR(UK) hosted launch webinar

9/2/21 18.30-19.30 UTC

Presenters: Chris Evans & Jo-anne Carlyle

Hosts: Charlie Duncan & Afra Turner

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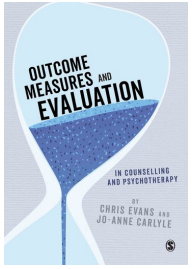
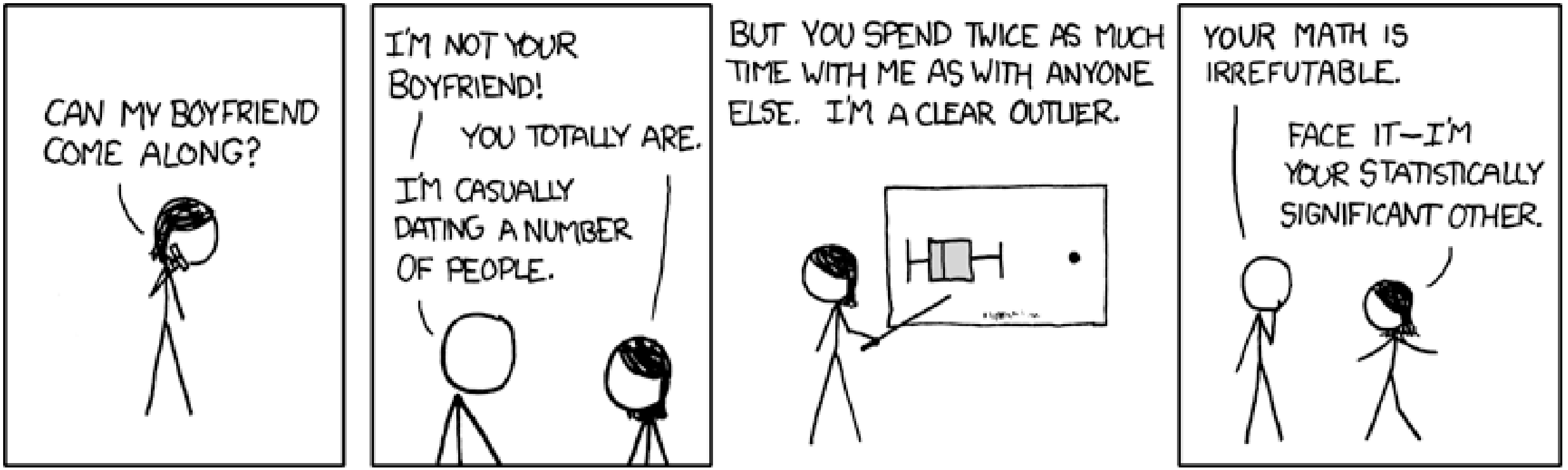
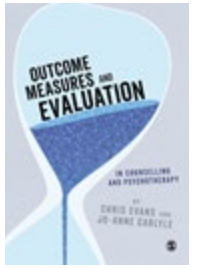




https://xkcd.com/539/



Contents of the book

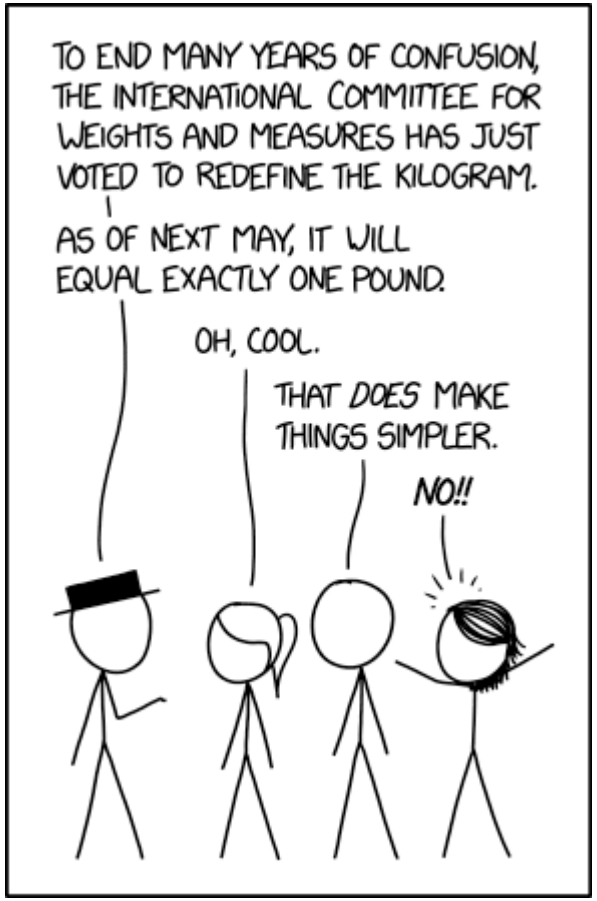
- **All this is at https://ombook.psyctc.org/book/#book-contents**
- Intro
- Part I: Outcome measures and evaluation
  - Chapter 1. An introduction to outcome measures and evaluation
- Part II: Outcome measures
  - Chapter 2. A framework for outcome measurements
  - Chapter 3. How to judge the quality of an outcome measure
  - Chapter 4. An overview of outcome and change measures
  - Chapter 5. Analysing change data from outcome measures
- Part III. Evaluation – applying outcome measures in practice
  - Chapter 6. Planning an outcomes exploration: design and be SMART
  - Chapter 7. Outcome measurement for individual practitioners
  - Chapter 8. Service-level change and outcome measurement
  - Chapter 9. Working with clients and supervisors when using outcome measures
- Part IV. Communication and critique
  - Chapter 10. A ‘snapshot’ review: Constructive critique as a core practitioner skill

Part I. Outcome measures and evaluation

Chapter 1. An introduction to outcome measures and evaluation

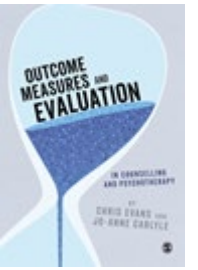
- Why bother? No one on their death bed …
- Political reasons
- Knowledge-led reasons (and a bit of epistemology)
- Therapeutic reasons
- Is it doable? What are the barriers?
- So where do I start?

Part II. Chapter 2. A framework for outcome measurements



https://xkcd.com/2073/

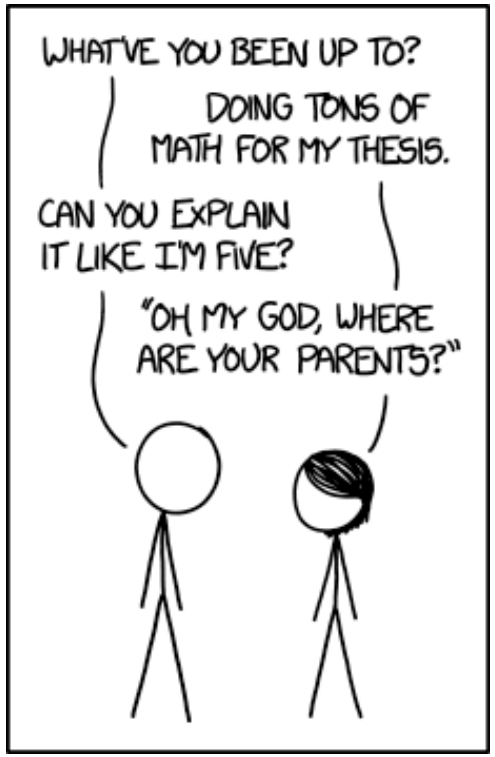
A theme through the book is that our OMs are not simple, they are not like hard science measures



Part II. Chapter 2 continued

- Develops general ideas from Part I.
- Recognises that there are many OMs all with advantages and disadvantages: self-report, multi-item, nomothetic questionnaires are *not* the only option.

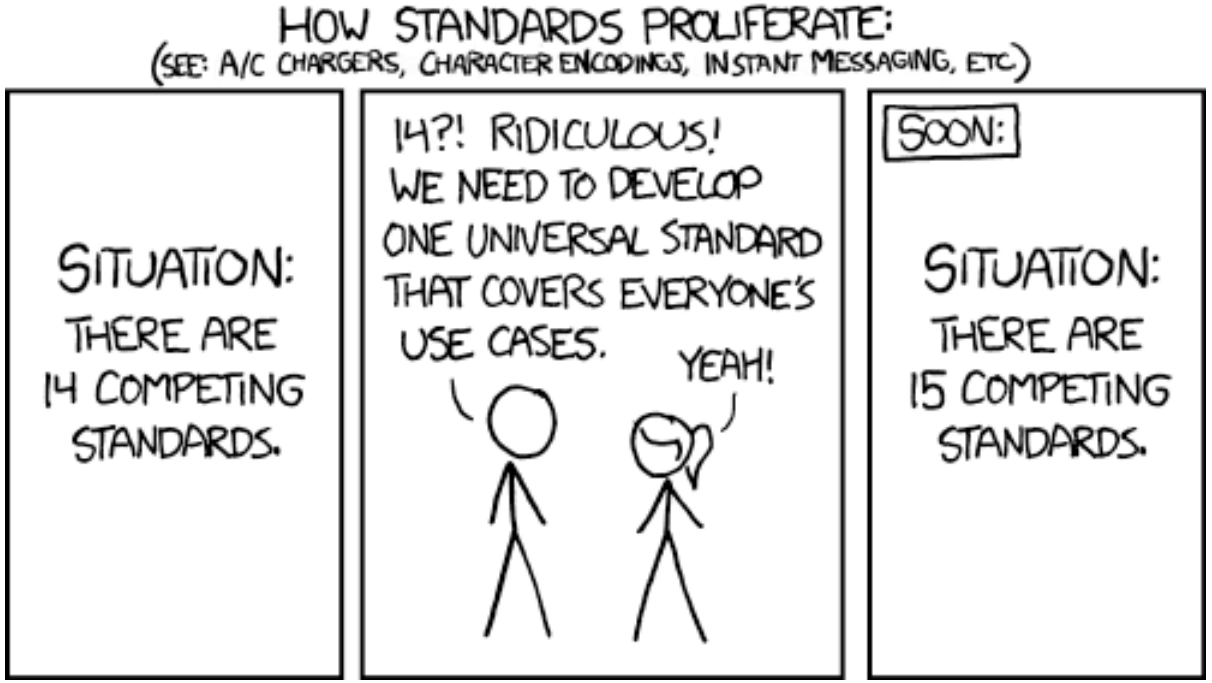
Part II. Chapter 3. How to judge the quality of an outcome measure



https://xkcd.com/1364/

- An OM is not fixed like the definition of a kilogram and judging the qualities of OMs is *not* just psychometrics
- We introduce GULP: Generalisability, Usability, Linguistics/culture and Psychometrics:
- We do explain basic quantitative psychometrics, reliability and validity
- “Shall I just invent my own measure? Stop! Don’t do it!”

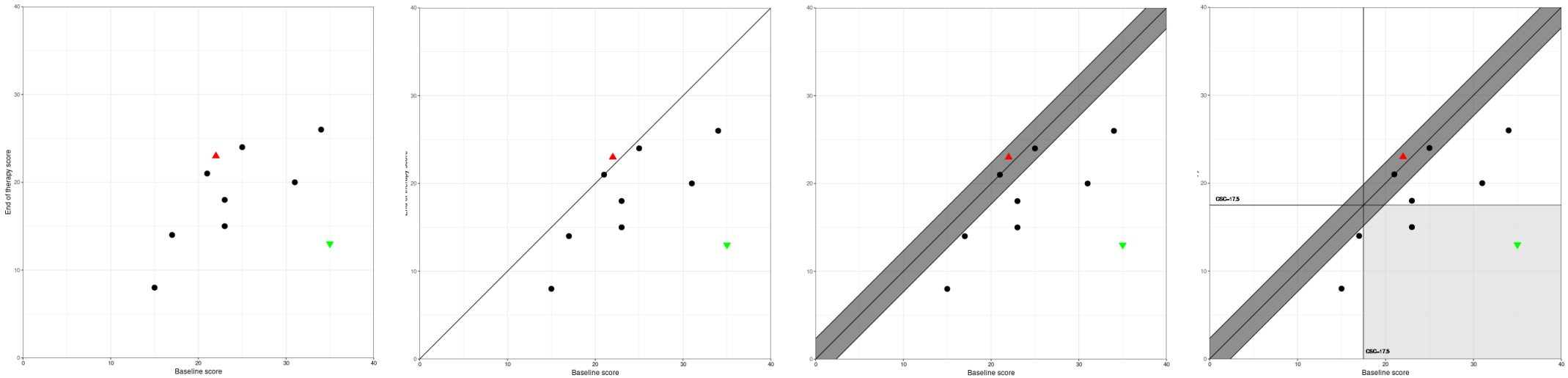
Part II. Chapter 4. An overview of outcome and change measures



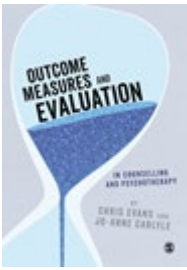
https://xkcd.com/927/

- Back to the framework of OMs from chapter 2 but with examples

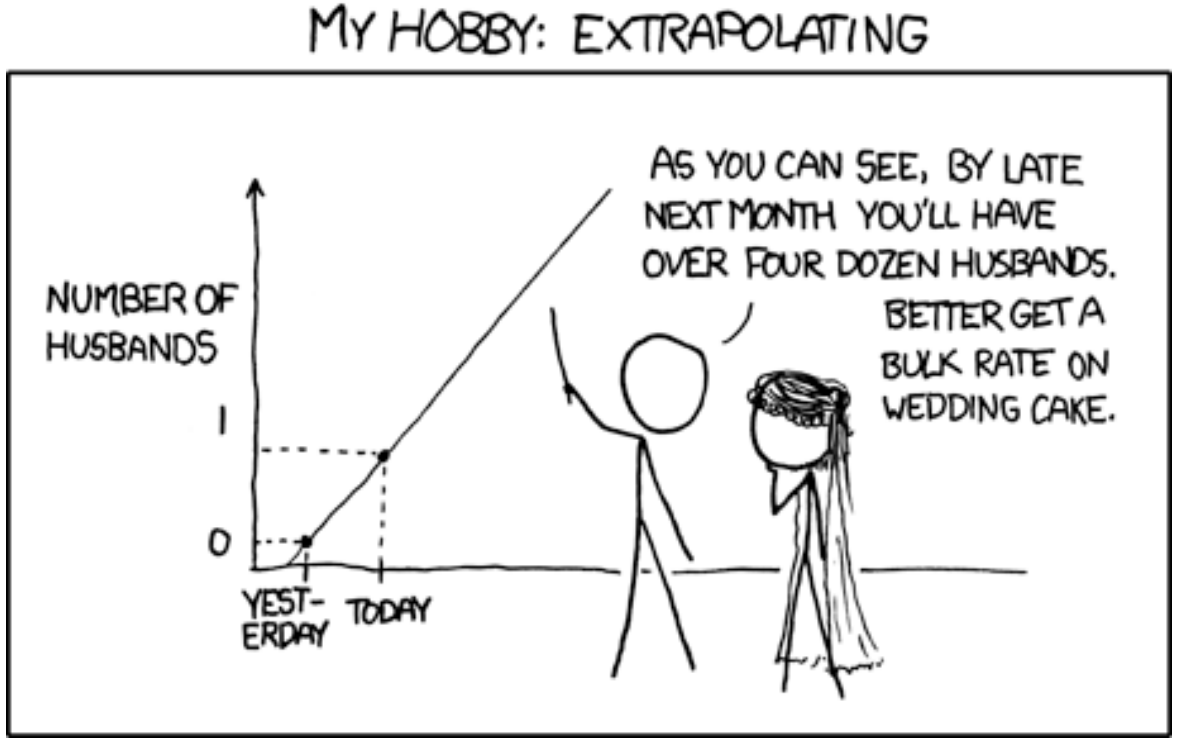
Part II. Chapter 5. Analysing change data from outcome measures



- Introduction to procedures to analyse change: tables, graphs and statistical summaries
- Explanation of statistical significance tests and confidence intervals



Part III. Chapter 6. Planning an outcomes exploration: design and be SMART



https://xkcd.com/605/

- That's not how to do it!

Part III. Chapter 6 continued

- What do you want to tell and *to whom*: the vital issue of audience
- Fit your design to your audience (and aim)
- Good design and SMART design
  - "*n*": data set size
  - Quantitative, qualitative and mixed data and methods
  - Confidentiality and ethics
- When *not* to measure
- Making the best of imposed OMs

Part III. Chapter 7. Outcome measurement for individual practitioners

- Simulated examples for short term and longer term practitioners
- Comparing with other practitioners and with trial reports
- “Little data” *versus* “Big data”

Part III. Chapter 8. Service-level change and outcome measurement

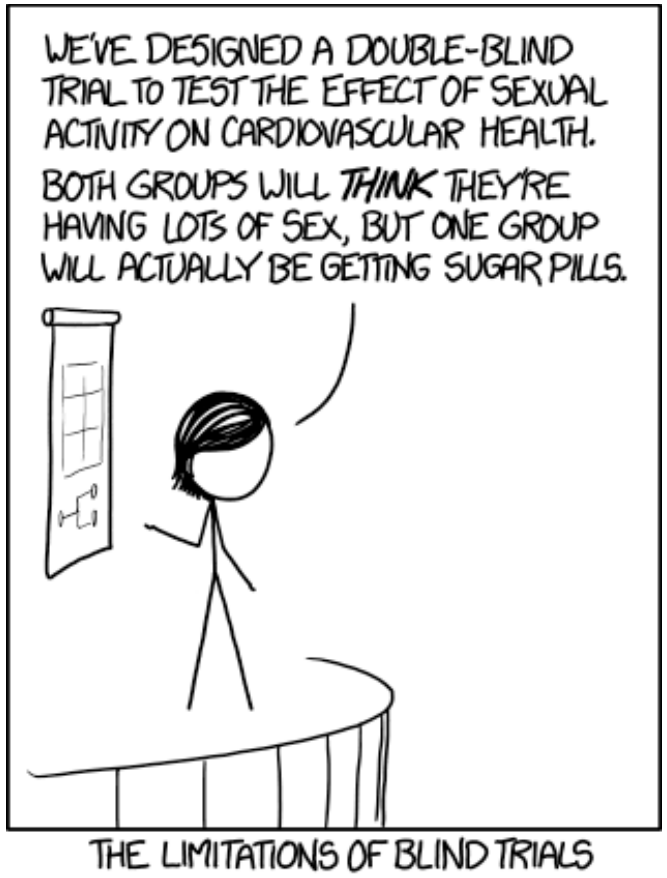
- Simulated stepped care service: how to choose what to examine
- Looking at:
  - Opting out
  - Effects of social deprivation and of therapist experience on change
- Equipoise and how to avoid misinterpreting data

Part III. Chapter 9. Working with clients and supervisors when using outcome measures

- Using feedback, even OM feedback, in therapies is not new!
- Model/modality specificity
- Need for clarity and planning: What OM? Where? When?
- Using OMs is relational:
  - Talking about OMs and OM scores with clients
  - Embedding in …
    - Line management
    - Therapy supervision
- Beware measures ***versus*** therapy (with examples in the book!)

Part IV. Communication and critique

Chapter 10. …Constructive critique as a core practitioner skill



https://xkcd.com/1462/

- That's not how to do it!

Part IV. Chapter 10 continued

- Section 1: Dominant myths
  1. ‘we know what works for whom and just need to hone this’
  2. ‘only randomised controlled trial evidence ascribes causality: that is all we need’
  3. ‘there are lies, damned lies and statistics’
     … and …
     ‘I can prove anything by statistics except the truth’
- Accepting incompleteness
  1. Viewpoints: perspective and position
  2. Omissions and incomplete data
  3. Descriptive quality
- Equipoise in clinical and research setting

Supporting materials and resources: book pages

https://www.psyctc.org/psyctc/book/

Work mostly by CE other than CORE (for which, see : www.coresystemtrust.org.uk)

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Outcome measures book

OM book glossary (general use, not just for book)

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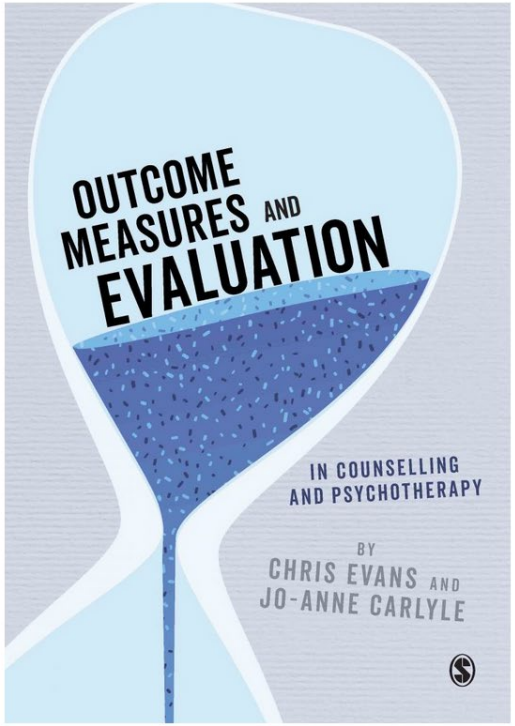

Paperback ISBN: 9781473906730
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SAGE page

Available from

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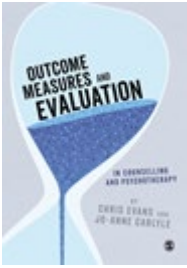
- GooglePlay
- eBooks.com



Supporting materials and resources: glossary

https://www.psyctc.org/psyctc/book/glossary/

Home
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Against score levels?
Blended & layered research: Avdi & Evans 2020

OM book glossary

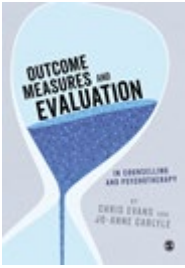
This is the glossary for the book "Outcome measures and evaluation in counselling and psychotherapy" written by myself and Jo-anne Carlyle and available now from SAGE.

Just type in whatever you want to look up below and you should see pertinent entries if I have created them yet (150 now and climbing!)

The full list of entries follows, if what you want is not there and you think it should be, contact me and tell me and I will put it on the list of entries to be added!

All OM book glossary entries

"Big data"
"Hard" measures
"Normal" distribution
"Soft" measures
Age
Aggregation
Audit, Clinical Audit
Authenticity Scale (AS)
Barplot / bar plot
Beck Anxiety Inventory (BAI)
Beck Depression Inventory (BDI)
Between groups tests
Bias
Blinding
Body Shape Questionnaire (BSQ)



Supporting materials and resources: Rblog

https://www.psyctc.org/Rblog/

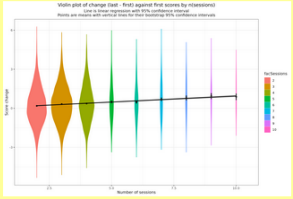
Chris (Evans) R SAFAQ | Search... | USE | Home | Welcome | About | Wisdom! | Copyright/permissions

An R SAFAQ: go to USE (menu above) to get advice on using this!

Feb. 5, 2022
Chris Evans

Pre/post analyses

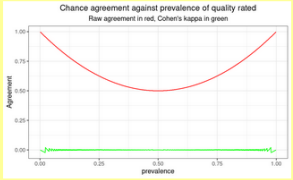
Teaching myself about pre/post therapy change analyses using R. Probably the first of a series of posts.



Jan. 24, 2022
Chris Evans

Chance corrected agreement

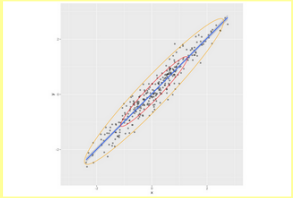
Simple plotting of raw agreement and Cohen's kappa for various prevalences of the rated quality and only chance agreement



Jan. 15, 2022
Chris Evans

Data ellipses and confidence ellipses

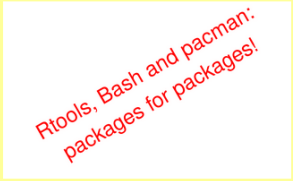
This just clarifies the distinction between a data ellipse and a confidence ellipse, i.e. an ellipse describing the joint confidence intervals on two parameters of a model

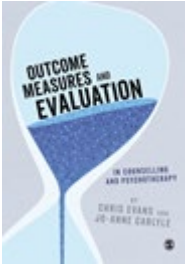


Nov. 12, 2021
Chris Evans

Compiling packages reporting missing headers in windows

For anyone else who hits this and doesn't want to wait for someone to put the compiled package into CRAN





Supporting materials and resources: CECPfuns

https://cecpfuns.psyctc.org

CECPfuns 0.0.0.9041 Reference Articles Changelog

CECPfuns

The goal driving the creation of CECPfuns is largely selfish: to make sure I have a single, up to date, repository where I can find potentially reusable functions I have written. However, it is something that has been very much encouraged by (Dr. Clara Paz)[https://investigacion.udla.edu.ec/udla_teams/clara-paz/] and she has contributed to some of these functions and to the general idea of the package. Input has also come from (Emily Blackshaw)[https://www.researchgate.net/profile/Emily_Blackshaw2]. It is possible that these functions may be of use to others so I am now uploading it to GitHub at https://github.com/cpsyctc/CECPfuns after any significant changes.

There is also now a pkgdown produced web site for the package at https::/cecpfuns.psyctc.org/.

Installation

You can install the latest version of CECPfuns from https://github.com/cpsyctc/CECPfuns.

```
devtools::install_github("cpsyctc/CECPfuns", build_vignettes = TRUE)
### or
remotes::install_github("cpsyctc/CECPfuns", build_vignettes = TRUE)
```

If you really want to make sure you always have the latest version, you can look for it every time you launch R, see here.

Background information

- As above, you can find out more about Clara at https://investigacion.udla.edu.ec/udla_teams/clara-paz/,
- you can find out more about Emily at https://www.researchgate.net/profile/Emily_Blackshaw2 and about her PhD which I am supervising on ResearchGate, here and
- my own biggest research programme, which overlaps with Emily's work, is the CORE system: https://www.corestemtrust.org.uk/ and a web site about my non-CORE work is slowly building (from a much earlier one) at https://www.psyctc.org/psyctc/ and my personal site is https://www.psyctc.org/pelerinage2016.

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Code of conduct

Citation

Citing CECPfuns

Developers

Chris Evans

Author, maintainer, copyright holder

All authors...

Dev status

codecov unknown

R-CMD-check failing

Developed by Chris Evans.

Site built with pkgdown 1.6.1.9000.

Emerging supportive resources: shiny apps

https://shiny.psyctc.org/apps/Cronbach1Feldt/

Parametric confidence interval for Cronbach alpha

This shiny app is part of a number from my site at PSYCTC.org . There is a form there to contact me so do please use that if you think there is anything wrong here, or anything that could be improved.

Put your values in here, replacing the existing ones

Sample size (n), positive integer

110

Number of items (k), positive integer

34

Observed/reported Cronbach alpha value (<=1.0)

0.94

A referential alpha (if you need this)

0

Width of CI (usually .95, i.e. 95% CI, <=.99)

0.95

Number of decimal places

2

Your input and results

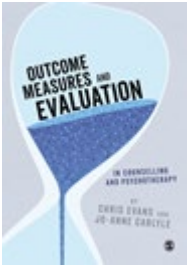
```
Given:
   Observed alpha  = 0.94
   n               = 110
   Number of items = 34
   Gives two-tailed p = 0
      against alternative alpha of 0
 95% confidence interval from 0.92 to 0.96
```

App created by Chris Evans PSYCTC.org licenced under a Creative Commons, Attribution Licence-ShareAlike Please respect that and put an acknowledgement and link back to here if re-using anything from here.

The breakout groups

- We need new models!!
- New to OM
- Seasoned researchers and OM users
- Interested in OM but not from therapies/counselling

Questions for your groups

- What changes in OM would help therapy modalities and groups not well served by current methods?
- Anything you really agree or disagree with in what you've seen, heard or read of the book?!

What would help you more from this?