

# Rapid Critical Appraisal of Scientific Literature

9<sup>th</sup> August 2024



Presented by

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Neonatology | Community Health | Mental Health | Perth Children's Hospital



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# Rapid Critical Appraisal of Scientific Literature

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# What skills do I need to critically appraise the evidence?

Three aspects of critically appraising the evidence:

- 1. Determine your research questions
- 2. Finding the evidence
- 3. Critically analysing the evidence













# Choosing and Finding the 'Best Evidence'

What to read depends on your type of research question!

Question	Question type	Study design				
How common is the problem?	Prevalence	Observational				
Is early detection worthwhile?	Screening	Observational; RCT				
Is the diagnostic test accurate?	Diagnosis	Observational				
What caused this problem?	Risk factors	Observational				
What will happen if we do nothing?	Prognosis	Observational				
Does this intervention help?	Treatment	RCT				
What are the harms of an intervention?	Treatment	RCT				
What are the barriers and facilitators of the interventions?	Treatment	Qualitative				
Adapted from CEBM University of Oxford, Prof Carl Heneghan; Observational = cohort, cross-sectional, case-control						







# Understanding 'Good' from 'Bad' research: Journals



# Understanding 'Good' from 'Bad' research: Authors







Critical appraisal is the process of carefully and systematically examining research to judge its <u>trustworthiness</u>, its <u>value</u> and <u>relevance</u> in a particular context (Burls, 2009)

- Does the study have a clearly focused question?
- Did the study use valid methods to address the question?
- Are the valid results of this study important?
- Are these valid, important results applicable in my setting?

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Should I believe the results of this study? All research has flaws!





# Key Concepts of Critical Appraisal No study is perfect → Examine validity There is more than one possible explanation for the result reported in a study: Truth Error eg bias and confounding Over- or under-estimate the outcome Chance Not all results can be applied in your setting



























Interventions	The potential impact of undisclosed conflicts of interest
Rosiglitazone	Following a meta-analysis showing an association between rosiglitazone and cardiovascular risk, articles authored by researchers with conflicts of interest were more likely to uphold the safety of the drug. Among the articles with identified conflicts of interest, 23 % did not disclose them. Rosiglitazone was withdrawn from the market for safety reasons in several countries but remains available in the USA.
Alteplase	Alteplase was strongly recommended for use in acute stroke in clinical guidelines despite resistance from emergency physicians concerned about intracerebral haemorrhage . Seven of eight panellists developing the guidelines had potential conflicts of interest (indirect financial ties to the manufacturer of alteplase), but only three of the panellists disclosed these conflicts. After the conflicts of interest were revealed, the American Heart Foundation withdrew statements that the intervention could save lives.
Risperidone	While failing to completely disclose financial relationships with the manufacturer of risperidone, an influential researcher was instrumental in expanding the diagnosis criteria for bipolar disorder in children and conducted a number of paediatric clinical trials demonstrating the benefit of the drug in children. A congressional investigation later found him guilty of violating federal and university regulations and conflicts of interest policies.
Measles, mumps, rubella (MMR) vaccine	A study linking the MMR vaccine to autism was eventually retracted after it was discovered that an author failed to disclose how he stood to gain financially by discrediting the vaccine. The impact on vaccine decision-making persists even a decade later, with surveys showing that more than one in five people believe that vaccines cause autism.

Study or subgroup	Industry n/N	Non-industry n/N	Risk Rato M-H, Fixed, 95% Cl	Weight	Bisk Rafo M-H,Fixed,95% Cl	
Alasbali 2009	7/29	2/10		0.9 %	1.21 [ 0.30, 4.88 ]	
Bero 2007	65/94	48/97	-	13.7 %	1.40 [ 1.10, 1.78 ]	
Booth 2008	49/120	50/165		12.2 %	1.35 [ 0.98, 1.85 ]	
Bourgeois 2010	222/260	48/85	-	21.0 %	1.51 [ 1.25, 1.83 ]	
Clittord 2002	46/66	21/34		8.1 %	1.13 [ 0.83, 1.54 ]	
Etter 2007	25/49	9/41		2.8 %	2.32 [ 1.23, 4.40 ]	
Kelly 2006	12/13	4/8	+	1.4 %	1.85 [ 0.91, 3.76 ]	
Momeni 2009	20/24	69/85	+	8.8 %	1.03 [ 0.84, 1.26 ]	
Monariett 2003	2/2	2/7		0.4 %	2.67 [ 0.85, 8.39 ]	
Perlis 2005b	93/113	37/49	+	15.0 %	1.09 [ 0.91, 1.31 ]	
Rasmussen 2009	66/109	14/28		6.5 %	1.21 [ 0.81, 1.81 ]	
Ratinger 2009	26/36	18/25		6.2 %	1.00 [ 0.73, 1.38 ]	
Tulikangas 2006	15/15	7/9	++	2.7 %	1.29 [ 0.89, 1.87 ]	
Vlad 2007	5/11	0/4		0.2 %	4.58 [ 0.31, 68.24 ]	Lundh A, Sismond S, Lexchin J, Busu OA, Bero L. Indus
Total (95% CI) Total events: 653 (Industry), Heterogeneity: Chi <sup>2</sup> = 22.28, Test for overall effect: 2 = 6.05 Test for a charge in differences	941 329 (Non-industry) d1 = 13 (P = 0.05); l <sup>2</sup> =42 5 (P < 0.00001) : Not anglicable	647 2%	•	100.0 %	1.32[1.21, 1.44]	sponsorship and research outcome <i>Cochrane Databa</i> <i>Syst Rev</i> 2012; (1













































# Coming up next 16 Aug Conducting Systematic Reviews Prof Sonya Girdler, Curtin University 23 Aug Knowledge Translation Prof Fenella Gill, Curtin University/CAHS Register -> trybooking.com/eventlist/researcheducationprogram We love feedback A survey is included in the back of your handout, or complete online

https://tinyurl.com/surveyAppraiseLiterature

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# Rapid Critical Appraisal of Scientific Literature

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RESOURCES

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# 1. What is evidence-based clinical practice (EBCP)?

Evidence-based medicine is the integration of best research evidence with clinical expertise and patient values" (David Sackett). Evidence-based clinical practice involves critically interpreting available evidence and applying it appropriately to clinical situations.

The 5 key steps of EBCP are:

#### A) Formulate an answerable question – PICOT (to ensure all key elements of a question are included)

- P patient or population
- I intervention or exposure or test
- **C** comparison
- O outcome
- T time frame (sometimes used)
- B) Track down the best evidence
- C) Critically appraise the evidence for:
  - Validity
  - Impact (size of the benefit)
  - Applicability/usefulness
- D) Integrate with clinical expertise and patient values
- E) Embed it into practice
- F) Evaluate our effectiveness and efficiency of the change in practice keep a record; improve the process
- G) Disseminate
- H) Implementation/scalability

# 2. So what is critical appraisal?

Critical appraisal is the process of carefully and systematically examining research to judge its trustworthiness, its value and relevance in a particular context (Burls, 2009).

# 3. Why do we need critical appraisal?

- a) Mass of rapidly expanding scientific literature need to have a relevant, efficient approach.
- b) Need to shift focus to current clinical issues/problems ("just in time" education), which is relevant to our practice, up to date and memorable rather than "just in case" reading where we try to read everything that crosses our desk in case we might need it one day.
- c) Systematic reviews with a meta-analysis, systematic reviews and RCTs provide the highest level of evidence and should be the focus wherever possible.
- d) We are (currently) poorly equipped to tell good from bad research (read Schroter et al for further explanation see below)

#### It's impossible to read everything relevant to your discipline!

# 4. Key Concepts Underpinning Critical Appraisal

4.1. **Key Concept 1:** No study is perfect. (Why we must assess Study Validity)

All research is flawed. We need to determine whether there are enough flaws to discard it, or interpret/use it. To meaningfully interpret results, as a minimum, a paper must have:

- a) Sufficient detail to assess the key elements making up study validity (Study Checklists help this see below)
- b) The right study design to be able to answer the study question. Different types of questions will require different kinds of evidence: Is the study design chosen able to answer the study question? There are different things to look for according to each study design/question type (Study Checklists help this – see below)
- 4.2. **Key Concept 2:** There is more than one possible explanation for a reported "effect" found in a study.

The published result(s) may reflect:

- **Truth**: a real effect what we hope from a "good" study
- Chance: according to a p value pre-determined by the researcher (eg p=0.05).
   Any statistical assessment is one of probability ie the result occurred by chance
- **Error**: an erroneous result due to problems with study design/ implementation/analysis/interpretation
- 4.3. **Key Concept 3:** Not all results can be applied in the setting in which you work. Can we apply the results in our setting? more detail below

Perth Children's Hospital **Foundation**  4.4. **Key Concept 4:** Don't rely on one study (unless there really is only one!) to change practice. Even if there is only one study you need a good reason to change practice.

Studies on the same topic will always have different estimates of effect and often different conclusions. This is why well-conducted systematic reviews/meta-analyses provide stronger evidence than a single trial. Are the results valid? (Study Quality)

# 5. Internal Validity

Is the study design, conduct, and analysis such that the study results are likely to reflect a true answer to the study question? To examine this, we must rule out the influences of bias and confounding that might be contributing to observed differences in outcomes between the treatment/exposure groups, or the measure of effect attributable to the study.

There are different check lists for internal validity according to the type of study: look at the Centre for Evidence-Based Medicine (CEBM) website: <u>https://www.cebm.ox.ac.uk/resources/ebm-tools/critical-appraisal-tools</u>. Other checklists are provided in the resources section

Internal validity will depend on how the study was:

- designed
- conducted
- analysed
- interpreted and reported

5.1. Important Concepts:

- **Bias or "systematic error"** Occurs when measurements deviate systematically from the true state of the attribute (eg sick people more likely to remember an exposure than well people)
- Noise or "Random error" Occurs when repeated measurements of the same attribute do not agree, but there is no systematic deviation from the true state of the attribute (eg measuring head circumference three times)
- **Confounding:** a confounder is a baseline variable or intervention that is extraneous to the study question, but potentially related to the outcome and is differentially applied to the intervention and control groups. Or: Were there alternative factors which differed between the compared groups that could have accounted for the outcome?

Confounding in Health Research – Part I https://www.teachepi.org/wpcontent/uploads/OldTE/documents/courses/fundamentals/Pai Lecture8 Confound ing\_Part1.pdf

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#### **Confounding in Health Research – Part II** <u>https://www.teachepi.org/wp-</u> <u>content/uploads/OIdTE/documents/courses/fundamentals/Pai Lecture8 Confound</u> <u>ing Part2.pdf</u>

• Study design features can minimise bias and confounding. But bias cannot be "fixed" once it has occurred; only described as a study weakness to allow appropriate interpretation of results.

### 6. What are the results? (Study effect size and interpretation including precision)

- 6.1. 3 Big Things to Consider:
  - 1) **Common sense**, including clinical relevance (eg 1mmHg difference in BP) Bradford Hill criteria, interpretation
  - 2) Size of the effect (RR, OR, NNT, RD, ARR, etc)
  - 3) **Precision** (was it measured appropriately, was the effect precise)
- 6.2. Summary measures of effect (measures of "occurrence") (using CIs wherever possible see below)
  - Categorical variables:
    - o Prevalence
    - o Incidence/absolute risk
    - Relative risk, Odds ratio
    - Absolute risk reduction or risk difference
    - o Relative risk reduction,
    - Number needed to treat/harm
  - Continuous variables:
    - Mean difference in final outcome measure (eg difference in means) (eg on average participants receiving an intervention scored 10 points lower than the control group)
    - Standardised mean difference (difference in means/pooled standard deviation of both groups – need SD and size of each group; also used in meta-analysis when different tools measure the same construct e.g. depression by BDI and HADS).

**Prevalence** = counts of events at one point in time / total number of people who could have had the event (the population at risk). It is not a rate as there is no time component.

**Incidence** = count of new events / <u>population at risk</u> over a given time period (a true rate described per unit of time). Those who already have the event at the start of the time period are excluded because they are not part of the population at risk.

Relative risk (RR)= prevalence in group 1/prevalence in group 2

**Risk difference** (RD) = prevalence in group 1- prevalence in group 2 = same thing as absolute risk reduction (absolute difference between two rates)

**Relative risk reduction** (RRR) = (1-RR) x 100% (proportional difference between two rates)

Number needed to treat (NNT) = 1/RD

Patient and clinician acceptance DOES vary according to which results are presented. Read: *Hux & Naylor Med Decis Making 1995;15;152-7.* <u>http://www.ncbi.nlm.nih.gov/pubmed/7783576</u>

Because measures of relative risk are relative to the comparator group, they can seem big or important. Very important to remember that the risk benefit ratio depends on the ABSOLUTE (baseline) risk.

Note that for Diagnostic-type Questions, other measures of effect are generally used:

- Sensitivity, specificity
- Positive predictive value
- Negative predictive value
- Likelihood ratio positive
- Likelihood ratio negative

Please see the CEBM website for formulae etc –Specific diagnostic study materials are listed below.

#### 6.3. Precision

How precise is the estimate of risk? Consider:

- Size of the P-value (never by itself)
- Size of the confidence intervals
- Have all the important variables been considered? Adjustments made? Were results robust?
- Was the effect of subjects refusing to participate evaluated? Sensitivity analyses? (see validity)
- What was the effect of missing data on the effect estimate?

# 7. Can we apply the results in our setting?

Consider external validity (generalizability), applicability, and individual preference (when considering patients or clients)

- 7.1. Important Questions to Ask
  - What if I do nothing?
  - What other options do I have?
  - What are the benefits and harms of all the options?
  - Do I have enough information to make a decision?
- 7.2. Summary Of Considerations In Critical Appraisal
  - Overall validity and quality
  - Consistency with other studies/evidence, Bradford-Hill criteria
  - Interpretation of results
  - Relevance to your patient
  - Practical issues (e.g. local costs, feasibility)

# 8. Key Resources

- 8.1. Evidence-Based Clinical Practice
  - Sackett DL, Rosenberg WMC, Gray JAM, Haynes RB, Richardson WS: Evidence based medicine: what it is and what it isn't. *BMJ 1996;312:71-2.* <u>http://www.bmj.com/content/312/7023/71</u>
  - Centre for Evidence-based Medicine. University of Oxford (including Critical Appraisal Sheets) <u>http://www.cebm.net/</u>
  - Polythenia gravis: the downside of evidence based medicine. BMJ 1995;311:1666 (for fun) <u>http://www.bmj.com/content/311/7021/1666</u>
- 8.2. Critical Appraisal information
  - What is critical appraisal. Amanda Burls. University of Oxford
     <u>http://www.bandolier.org.uk/painres/download/whatis/What\_is\_critical\_appraisal.pdf</u>
  - The Environment and Disease: Association or Causation? Sir Austin Bradford Hill, Professor Emeritus of Medical Statistics, University of London) <u>http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1898525/pdf/procrsmed00196-</u> <u>0010.pdf</u>
  - Schroter S, Black N, Evans S, Godlee F, Osorio L, Smith R. What errors do peer reviewers detect, and does training improve their ability to detect them? *J R Soc Med 2008; 101(10): 507–514* http://www.pcbi.plm.pib.gov/pmc/articles/PMC2586872/

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2586872/

 Critical Appraisal Skills Programme, UK <u>https://casp-uk.net/</u>

- GRADE working group
   <u>https://www.gradepro.org/resources</u>
- SIGN methodology
   <u>https://www.sign.ac.uk/what-we-do/methodology/</u>
- 8.3. Reviewing the Evidence
  - Cochrane Collaboration
     <u>https://www.cochrane.org/</u>
  - Campbell Collaboration
     <u>https://www.campbellcollaboration.org/</u>
  - Joanna Briggs Institute
     <u>https://jbi.global/</u>
  - Eppi-Centre https://eppi.ioe.ac.uk/cms/
- 8.4. Useful Checklists for Critical Appraisal
  - Critical Appraisal Tools (Check lists). CEBM Oxford.
     <u>http://www.cebm.net/critical-appraisal/</u>
  - BMJ Best Practice. Critical Appraisal Checklists
     <u>https://bestpractice.bmj.com/info/toolkit/ebm-toolbox/critical-appraisal-checklists/</u>
  - CASP Checklists
     <u>https://casp-uk.net/casp-tools-checklists/</u>
  - AMSTAR
     <u>https://amstar.ca/Amstar\_Checklist.php</u>
  - ROBIS https://www.bristol.ac.uk/population-health-sciences/projects/robis/
  - Risk of bias 2 tool
     <u>https://www.riskofbias.info/</u>
  - Risk Of Bias In Non-randomized Studies of Interventions (ROBINS-I)
     <u>https://www.riskofbias.info/welcome/home</u>
  - Joanna Briggs Institute
     <u>https://jbi.global/critical-appraisal-tools</u>
- 8.5. Checklists for study transparency
  - Equator network reporting guidelines for main study types <u>https://www.equator-network.org/</u>
  - Prognostic studies
     <u>https://www.cebm.net/wp-content/uploads/2014/04/cebm-prognosis-worksheet.pdf</u>

- 8.6. Communicating Results
  - Hux JE, Naylor CD. Communicating the benefits of chronic preventive therapy: does the format of efficacy data determine patients' acceptance of treatment? *Med Decis Making* 1995;15;152-7 http://www.ncbi.nlm.nih.gov/pubmed/7783576
  - SD Carley et al, Moving towards evidence based emergency medicine: use of a structured critical appraisal journal club, *Lancet (1997) 349:301-5* <u>http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1343126/pdf/jaccidem00025-0010.pdf</u>
- 8.7. Journal Clubs
  - Phillips RS, Glasziou P. What makes evidence-based journal clubs succeed? Evid Based Med 2004;9:36-37 http://ebm.bmj.com/content/9/2/36.full





Interactive in pdf format

Last updated 30/7/24

# **CAHS Research Education Program**

# **Research Skills Seminar Series**

A free, open-access resource designed to upskill busy clinical staff and students and improve research quality and impact.

# 2024 Seminar Schedule

DATE TOPIC PRESENTER WATCH # ENROL 1 9 Feb **Research Fundamentals** Dr Kenneth Lee, UWA \_ 2024 2 16 Feb Introductory Biostatistics Michael Dymock, TKI -2024 3 8 Mar Social Media in Research Dr Amy Page, UWA 2024 -<u>202</u>4 4 22 Mar Introduction to Good Clinical Practice Alexandra Robertson, CAHS -<u>202</u>4 5 19 Apr **Research Governance** Dr Natalie Giles, CAHS 6 3 Mav **Scientific Writing** A/Prof Tony Kemp, UWA 2024 7 17 May **Project Management** Melanie Wright, SMHS 2024 -8 7 Jun Dr Tamika Heiden, Vic <u>2024</u> **Research Impact** 9 21 Jun <u>202</u>3 Consumer & Community Involvement in Research Belinda Frank, TKI -10 19 Jul Getting the Most out of Research Supervision Dr Timothy Barnett, TKI \_ 2022 **Enrolling Incapacitated Patients into** Prof Daniel Fatovich and 26 Jul 11 2023 **Medical Research in WA** Mark Woodman, EMHS 12 2 Aug Sample Size Calculations Michael Dymock, TKI 2023 -13 9 Aug **Rapid Critical Appraisal of Scientific Literature** A/Prof Natalie Strobel, ECU 2023 \_ 14 16 Aug **Conducting Systematic Reviews** Prof Sonya Girdler, Curtin Uni 2023 REGISTER 15 23 Aug Knowledge Translation Prof Fenella Gill, Curtin/CAHS REGISTER <u>2023</u> 16 30 Aua Media and Communications in Research Peta O'Sullivan, CAHS REGISTER 2023 17 6 Sep Involving Aboriginal Communities in Research Cheryl Bridge, TKI and co. REGISTER 2023 18 11 Oct Grant Applications and Finding Funding Dr Tegan McNab, TKI REGISTER 2023 19 18 Oct **Oral Presentation of Research Results** Dr Giulia Peacock, CAHS REGISTER 2023 25 Oct 20 Statistical Tips for Interpreting Scientific Claims Michael Dymock, TKI REGISTER 2023 21 1 Nov Survey Design and Techniques Dr Giulia Peacock. CAHS REGISTER 2023 22 15 Nov Ethics Processes for Clinical Research in WA Dr Natalie Giles, CAHS REGISTER <u>2023</u> 23 22 Nov **Qualitative Research Methods** Dr Lorna Davin, Uni Notre Dame REGISTER 2023 Dr Helga Mikkelsen (Brandon 24 29 Nov Innovation and Commercialisation REGISTER 2022 BioCatalyst) & Ashley Schoof (TKI) 25 6 Dec Data Collection & Management (REDCap) Dr Giulia Peacock, CAHS REGISTER 2023

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Seminars are held from 12:30-1:30pm at Perth Children's Hospital Auditorium and are broadcast live online through Avaya and Teams. Seminars are recorded and uploaded to our website within a week of presentation. Topics are subject to change with appropriate email notice provided. Handouts are revised and updated regularly. Attendance certificates are available on request.



# **Research Skills Seminar Series**

A free, open-access resource designed to upskill busy clinical staff and students and improve research quality and impact.

## **Conducting Systematic Reviews** 16th August 2024 12.30 -1.30pm

Systematic reviews play an important role in health research. They provide a high level summary of studies and can inform policy and practice relevant to a particular area of inquiry. Understanding review methodologies is useful for those who wish to undertake a systematic review, or just read one. This seminar provides an overview of several types of reviews, along with simple strategies to focus a review and support review methodology.



#### Meet the presenter



Prof Sonya Girdler Director of the Curtin Autism Research Group (CARG) Director of Program 3 of the 'Living with Autism' CRC

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Sonya has published over 100 papers, including publishing more than 20 reviews (Systematic and Scoping), supervised 12 PhD students to completion and has extensive experience in conducting research in health and community settings.

Sonya is active in advocating and supporting other women in research in STEMM related fields.

#### Perth Children's Hospital Auditorium

Level 5, 15 Hospital Ave Nedlands Accessible via pink or yellow lifts or

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- **Fiona Stanley Hospital**
- Lions Eye Institute
- Pathways in Shenton Park
- **Royal Perth Hospital**





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Perth Children's Hospital Foundation A light lunch is provided for our in-person attendees. Bookings are essential.

The CAHS Research Education Program is proudly supported by the Perth Children's Hospital Foundation.



# **Research Skills Seminar Series**

A free, open-access resource designed to upskill busy clinical staff and students and improve research quality and impact.

# **Knowledge Translation**

# 23rd August 2024 12.30 - 1.30pm

Ensuring that research findings are translated into practice involves a systematic approach from the beginning when you are designing your research. Implementation science bridges the gap between developing and evaluating effective interventions and implementation and de-implementation in routine practice. This seminar covers key elements of implementation research; theoretical approaches, research designs, involvement of stakeholders, behaviour change interventions.



#### Meet the presenter



Professor Fenella Gill Acute Paediatric Nursing, Perth Children's Hospital and Curtin University

Fenella was an NHMRC Translating Research into Practice Fellow for post-doctoral research on partnering with parents in the care of their deteriorating child in hospital. She has undertaken training in implementation science in Canada and Australia and has held two further Implementation Science Fellowships. Fenella led the development of an evidence based paediatric early warning system with integrated family involvement and sepsis recognition. The ESCALATION System has been recently implemented throughout all WA hospitals where children are cared for and also adopted in pre-hospital emergency care by St John Ambulance WA. She now leads a research program Safer care for children in hospital to optimise the ESCALATION System.

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- Lions Eye Institute
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Image: Site



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A light lunch is provided for our in-person attendees. Bookings are essential.

The CAHS Research Education Program is proudly supported by the Perth Children's Hospital Foundation.





# **CAHS Research Education Program**

# REDCap Workshop Series



The Research Education Program - supported by the Perth Children's Hospital Foundation and the Telethon Kids Institute - offers a series of hands-on workshops that focus on the most integral features of REDCap and its application to your research project data. Workshops aim to directly build user skills in a guided environment, with time to ask questions and work on your own project. Dates below are still being finalised so check back again for latest version.

Presented by: Research Education Program Research Fellow Dr Giulia Peacock



C REDCap Resources

Location:

tion: PCH, TKI Seminar Room, Level 5 (West).

Торіс	Day	Date	Time	Max No (in person)
Workshop 1 – Basic Walkthrough	Tuesday	27 Feb	2:30pm to 4:30pm	<u>Watch</u>
Workshop 2 – Intermediate Walkthrough	Tuesday	12 March	1:00pm to 3:30pm	<u>Watch</u>
Workshop 3 – Advanced REDCap - Creating Surveys	Tuesday	30 April	1:00pm to 3:30pm	<u>Watch</u>
Workshop 4 – REDCap Troubleshooting Workshop	Tuesday	28 May	2:00pm to 4:00pm	cancelled
Workshop 5 – Basic Walkthrough	Tuesday	16 July	1:00pm to 3:30pm	<u>Watch</u>
Workshop 6 – Intermediate Walkthrough	Tuesday	20 Aug	1:00pm to 3:30pm	<b>40</b> <u>Register</u>
Workshop 7 – Advanced REDCap - Creating Surveys	Tuesday	10 Sep	2:00pm to 4:30pm	<b>40</b> <u>Register</u>
Workshop 8 – REDCap Troubleshooting Workshop	Tuesday	15 Oct	1:00pm to 3:30pm	<b>40</b> Register

#### IMPORTANT

(08) 6456 0514

Attendance is open to all Department of Health and Telethon Kids Institute staff.

Places are strictly limited and offered on a first-come, first-serve, basis. If you are not able to attend a workshop for which you have registered, please contact Research Education Program support via phone or email to cancel your reservation and/or be placed in another workshop or on the waitlist.

<u>Register</u> via Trybooking.com	Contact Us or Register here
<u>View</u> our online resources	☎       (08) 6456 0514         □       researcheducationprogram@health.wa.gov.au
<u>Subscribe</u> to our mailing list	cahs.health.wa.gov.au/Research/For- researchers/Research-Education-Program

ResearchEducationProgram@health.wa.gov.au

**CAHS** Research Education Program

# REDCap Workshop Series

# **REDCap Workshop 6: Intermediate Walkthrough**

20th August 2024 1.00 - 3.30pm

#### **Beyond the basics**

- This level offers a more comprehensive look at creating a database and using surveys, and builds upon the topics in the REDCap Basics Workshop.
- Those who attend this workshop should be familiar with navigating and using REDCap for project set-up and it will be most beneficial to those who have identified an upcoming need for the advanced functionality covered in this workshop.
- Do you already know how to create a project from scratch and use branching logic? If no, please register for a Basics Workshop. This workshop is for users who are already familiar with the REDCap interface. Open to all WA Health and TKI staff only.

## Meet the presenter

Dr Giulia Peacock CAHS Research Education Program Research Fellow

Giulia graduated medical school from the University of Notre Dame Fremantle in 2014. She supplements her clinical work as an Advanced Paediatric Trainee by conducting and publishing research in paediatric cardiology and through active involvement in medical education.

She is currently completing her Masters in Clinical Science, Child Health Research at the University of Western Australia. She hopes to ensure easy accessibility to research education and support, to create best outcomes for all patients.

#### PCH, TKI Level 5 Seminar Room





Government of Western Australia Child and Adolescent Health Service





The CAHS Research Education Program REDCap Workshops are proudly supported by the Perth Children's Hospital Foundation and Telethon Kids Institute.





# 2024 Research Skills Workshop Series

Perth Children's Hospital Foundation

The Research Education Program (REP) Research Skills Workshop Series, supported by the Perth Children's Hospital Foundation and the Telethon Kids Institute, offers a series of interactive workshops that focus on building the most fundamental research skills required to undertake clinical research projects.



Workshops aim to directly build user skills and knowledge in a guided environment, with time to ask questions specific to your own project.

#### Presented by: CAHS Research Department and invited guests

Location: PCH, TKI Seminar Room, Level 5 (W)

Торіс	Day	Date	Time	<b>Max</b> (in-person)
<b>Workshop 4 - Navigating Research Ethics and Governance in WA</b> If you are undertaking a research project or are thinking about becoming involved in research, understanding the review and approval requirements for your research project may appear intimidating. This workshop aims to help you understand the process of ethical and governance review for research approvals at CAHS - includes PCH, CACHS, CAHMS and Neonatology.	Tue	23 April	2.00pm - 4:00pm	<u>Watch</u>
Workshop 1 - Setting up Clinical Trials Clinical trials are the benchmark for testing interventions in healthcare. This workshop aims to provide practical advice to clinical researchers who want to gain insight on how to develop and complete their clinical trial on time and within budget. Come learn practical aspects of the steps involved in developing a clinical trial from the research idea to protocol development and execution.	Mon	20 May	12.00 noon - 2.00pm PCH level 6 TKI Manda	<u>Watch</u>
Workshop 2 - Manuscript Writing Journal publications are an integral part of dissemination of research findings. However, it can be overwhelming to convert several months of research into a succinct manuscript that will be loved by peer-reviewers and attract readers. This workshop is designed to give those who have completed their research projects, practical skills to transform their research data into publishable peer- reviewed literature.	Tue	11 June	2.00pm - 4:00pm	<u>Watch</u>
<ul> <li>Workshop 3 - Oral Presentation of Research Results</li> <li>Dissemination of research findings is integral in knowledge translation and clinical practice change. Oral presentations provide rapid dissemination of research findings to a target audience.</li> <li>We invite you to a practical session that will provide useful tips, practice sessions and personalised feedback to help deliver an adequate depth of your research findings to various research stakeholders.</li> </ul>	Tue	22 Oct	2.00pm - 4:00pm	<b>40</b> <u>Register</u>

#### IMPORTANT

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Register via Trybooking.com	Contact Us
O View recorded seminars	<ul> <li>☎ (08) 6<sup>4</sup></li> <li>∞ resear</li> </ul>
o <u>Subscribe</u> to our mailing list	C cahs.ł resear



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**CAHS Research Education Program** 

# 2024 Research Skills Workshop Series

# Oral Presentation of Research Results Workshop



# 22nd October 2024 2.00 - 4.00pm

Dissemination of research findings is integral in knowledge translation and clinical practice change. Oral presentations provide rapid dissemination of research findings to a target audience.

We invite you to a practical session that will provide useful tips, practice sessions and personalised feedback to help deliver an adequate depth of your research findings to various research stakeholders.

#### Meet the presenter

Dr Giulia Peacock Research Fellow CAHS Research Education Program

Giulia graduated medical school from the University of Notre Dame Fremantle in 2014. Giulia supplements her clinical work as an Advanced Paediatric Trainee by conducting and publishing research in paediatric cardiology and through active involvement in medical education. She is currently completing her Masters in Clinical Science, Child Health Research at the University of Western Australia. She hopes to ensure easy accessibility to research education and support, to create best outcomes for all patients.

#### PCH, Level 5, TKI Seminar Room

110



(08) 6456 0514 is researcheducationprogram@health.wa.gov.au



Government of Western Australia Child and Adolescent Health Service Perth Children's Hospital **Foundation** 



The CAHS Research Education Program REDCap Workshops are proudly supported by the Perth Children's Hospital Foundation and Telethon Kids Institute.











# Child Health Research Symposium

Empowering Futures: Advancing Child Health

4 - 7 November

Poster Opening Night

# You are invited!

# Monday 4 November at 5pm PCH Collegiate Lounge

Join us in opening our CAHS Symposium

For more information, contact us on pch.symposium@health.wa.gov.au

Neonatology | Community Health | Mental Health | Perth Children's Hospital



# **Research Skills Seminar Series**

A free, open-access resource designed to upskill busy clinical staff and students and improve research quality and impact.

# Rapid Critical Appraisal of Scientific Literature

Thank you for your interest in this seminar

Please complete this 1-minute evaluation. Your feedback will help guide future presentations and educational activities.

#### How did you attend the seminar?

- O Live seminar at Perth Children's Hospital
- O Hosted video-conference on-site (e.g. FSH, Lions Eye, RPH etc.)
- Online via Avaya or Teams
- Viewed online recording

#### Please rate your agreement with the following statements:

	N/A	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree
The aims and objectives were clear	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
The session was well structured	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Presentation style retained my interest	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
The speaker communicated clearly	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
The material extended my knowledge	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
The additional resources were helpful	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$

#### What were the best aspects of the seminar?

#### What changes or improvements would you suggest?

#### How did you hear about the seminar?

(you can select multiple answer)

- Email invitation from Research Education Program
- CAHS Newsletters e.g. The Headlines, The View, CAHS Research Newsletter
- "Health Happenings" E-News

Healthpoint Intranet Upcoming Events

- Collegiate lounge screen or other posted promotional material
- Telethon Kids Institute screen or other posted promotional material
- Telethon Kids Institute Newsletter

Other

# cahs.health.wa.gov.au/ResearchEducationProgram

