

ABC of Research Methodology and Research Methods Repository

Introduction

The '*ABC of research methodology and research methods repository*' aims to provide a set of introductory resources to support clinicians working in palliative care to better understand, undertake and utilise research. It is designed to facilitate the implementation of the core competences in research, as described in the [RESPACC Framework](#). The 'ABC' builds upon the outputs of the [RESPACC project](#), including the pre-recorded lectures on translating clinical ideas into research, and the lesson plans from these sessions.

The key resources listed here provide a foundation to guide clinicians. These resources are a starting point, and are not intended to be comprehensive or exhaustive, but presented to help you think about study design and methodology. We strongly urge you to seek further guidance on the areas highlighted and to seek support from your colleagues in local research/academic organisations, and engage with the wider literature.

Note about the listed resources:

We have endeavoured to identify contemporary resources that are most likely to be: easy to read, accessible (Open Access – free - where possible) and relevant for healthcare research contexts. As books and book chapters provide summaries and guidance on key topics, we have included them where appropriate, although most are not Open Access. For published journal papers and other online resources – we have provided direct links. Where appropriate, we have provided website links that were checked as correct in October 2022. The majority of resources are in English, but where possible we have identified material written in Spanish, Greek and Romanian.

Topic/session	Key resources
<p>1.What is research? Identifying a Clinical problem; Research question, Aims, Objectives, Hypotheses</p> <p>This section provides resources to enable development of a clinical problem or concern into a researchable question and/or a study hypothesis. It seeks to help formulate study aims and objectives to address a clinical issue in palliative care. It clarifies the difference between ‘aims’ and ‘objectives’ within a research proposal.</p>	<p>RESPACC C2 What is research https://youtu.be/ajBCpfjXFdc</p> <p>RESPACC O4 http://www.studiipaliative.ro/wp-content/uploads/2022/09/1.RESPACC-O4_What-is-research.pdf</p> <p>https://bestpractice.bmj.com/info/toolkit/learn-ebm/how-to-clarify-a-clinical-question/</p> <p>Farrugia P, Petrisor B, Farrokhyar F, Bhandari M Research questions, hypotheses and objectives. <i>Can J Surg</i> 2010; 53(4): 278-281 Research questions, hypotheses and objectives - PMC (nih.gov)</p> <p>Ratan SK, Anand T and Ratan J. Formulation of research questions – Stepwise approach <i>J Indian Assoc Pediatr Surg</i> 2019; 24(1): 15-20 Formulation of Research Question – Stepwise Approach - PMC (nih.gov)</p> <p>Vandenbroucke J and Pearce N. From ideas to studies <i>Clin Epidemiol</i> 2018; 10: 253-264 From ideas to studies: how to get ideas and sharpen them into research questions - PMC (nih.gov)</p> <p>Skivington K, Matthews L, Simpson S A, Craig P, Baird J, Blazeby J M et al. A new framework for developing and evaluating complex interventions: update of Medical Research Council guidance <i>BMJ</i> 2021; 374 :n2061 doi:10.1136/bmj.n2061 https://www.bmj.com/content/374/bmj.n2061</p>
<p>2.How to do a literature review</p> <p>The section provides resources to enable the accurate formulation of a literature review question, and provides</p>	<p>RESPACC C2 How to do a literature review_1 https://youtu.be/snuifC8qRPQ</p> <p>RESPACC C2 How to do a literature review_2 https://youtu.be/zowP5Znp6M8</p>

<p>guidance on how to select an appropriate method to undertake a review. There are many different types of literature review methods and it is essential that the selected method is compatible with the aims of the review.</p>	<p>Systematic Review Libguide https://lancaster.libguides.com/SystematicReviews</p> <p>ISSG Search Filters https://sites.google.com/a/york.ac.uk/issg-search-filters-resource/home</p> <p>Cochrane Searching https://training.cochrane.org/handbook/current/chapter-04</p> <p>PubMed https://pubmed.ncbi.nlm.nih.gov/</p> <p>Rayyan.ai https://rayyan.ai/</p> <p>Aveyard, H., Payne, S. A., & Preston, N. J. (2021). A post-graduate's guide to doing a literature review in health and social care. 2nd edition Oxford University Press: Oxford.</p> <p>Fink (2014) Conducting research literature reviews: from internet to paper. Sage: Thousand Oaks</p>
<p>3.What are, when and how to use quantitative methods?</p> <p>This section focuses on developing an understanding of the process of building statistical approaches to gather evidence to make predictions about relationships between variables. This includes the use of basic descriptive analyses and the formal evaluation of complex problems.</p>	<p>RESPACC C2 What are,When and how to use quantitative research https://youtu.be/McZsJ9XnNa8</p> <p>RESPACC O4 What are,When and how to use quantitative research http://www.studiipaliative.ro/wp-content/uploads/2022/09/3.RESPACC-O4_-What-are-when-and-how-to-use-quantitative-methods.pdf</p> <p>Hissong, A. N., Lape, J. E. and Bailey, D. M. (2014). Bailey's research for the health professional (3rd ed.). F.A. Davis Company.</p>
<p>4.Quantitative research approaches and study design.</p> <p>This section outlines the differing approaches used in quantitative research, and encourages the student to explore the merits of varying approaches to quantitative research in palliative care. The materials will help you explore to understand basic concepts in descriptive and inferential research, including: measures of central tendency (mean, median, mode, distribution and variance); and analyses such correlation and</p>	<p>RESPACC C2 Quantitative research approaches https://youtu.be/UzvHso4fRp8</p> <p>RESPACC O4 Quantitative research approaches http://www.studiipaliative.ro/wp-content/uploads/2022/09/4.RESPACC-O4_-quantitative-research-approaches.pdf</p> <p>Bowling, A. (2014). Research methods in health: investigating health and health services (Fourth edition.). Open University Press.</p>

<p>linear regression, and multivariate models such as multiple regression.</p>	
<p>5. Making Sense of Data: Understanding the principles of statistical analysis and choosing the right statistical test. This material will introduce approaches to the use and reporting of data in health care, covering descriptive and inferential approaches.</p>	<p>RESPACC C2 Making sense of data statistical analysis https://www.youtube.com/watch?v=kuoTZbpZpSk</p> <p>RESPACC O4 Making sense of data statistical analysis http://www.studiipaliative.ro/wp-content/uploads/2022/09/5.RESPACC-O4_Making-sense-of-data-statistical-analysis.pdf</p> <p>Walshe C and Brearley S.G. (2020). Introduction to the Handbook of Theory and Methods in Applied Health Research. Edward Elgar Publishing. (Chap 13)</p>
<p>6. What are, when and how to use qualitative methods?</p> <p>These resources provide basic methodological training in qualitative research in order to develop quality research in palliative care. It will help students to understand when to select a qualitative approach.</p>	<p>RESPACC C2 When and how to use qualitative research https://youtu.be/a5yrn4y4U9U</p> <p>RESPACC O4 When and how to use qualitative research http://www.studiipaliative.ro/wp-content/uploads/2022/09/6.RESPACC-O4_When-and-how-to-use-qualitative-researchvFinal.pdf</p> <p>http://www.studiipaliative.ro/wp-content/uploads/2022/09/7.RESPACC-O4_Methodology-and-data-collectionvFinal.pdf</p> <p>Richards, L., & Morse, J., M. (2013). Read me first for a user's guide to qualitative methods, (3rd ed.) Thousand Oaks: Sage.</p> <p>Walshe, C. & Brearley, S. (2020). Handbook of Theory and Methods in Applied Health Research: Questions, Methods and Choices. Edward Elgar. Cheltenham: United Kingdom.</p> <p>Arantzamendi, M.; Lopez-Dicastillo, O., Robinson.C, Carrasco, JM. Investigación cualitativa en Cuidados Paliativos. Un recorrido por los enfoques más habituales, Medicina Paliativa 2007; 24 (4): 219-226.</p>
<p>7. Qualitative methodology and data collection. How to select appropriate data collection techniques.</p> <p>These resources aim to reflect on the principles and significance of qualitative research in palliative care context. To increase awareness of different designs of qualitative research such as</p>	<p>RESPACC C2 Methodology and data collection https://youtu.be/1qb_5xYPPZQ</p> <p>RESPACC O4 Methodology and data collection http://www.studiipaliative.ro/wp-content/uploads/2022/09/7.RESPACC-O4_Methodology-and-data-collectionvFinal.pdf</p> <p>Creswell, J. W. (2012). Qualitative inquiry and research design: Choosing among five approaches. Sage: Thousand Oaks, CA.</p>

<p>ethnography, phenomenology, grounded theory, and how they may be used to address clinical research questions.</p>	<p>Kristjanson, L. & Coyle, N. (2003). Qualitative research in palliative care. In D. Doyle, G. Hanks, N. McDonald (Eds.) Oxford Textbook of Palliative Medicine, Oxford University Press, Oxford.</p>
<p>8. Qualitative analysis: common aspects of making meaning of data</p> <p>These resources will enable understanding of the common aspects of qualitative data analysis.</p>	<p>RESPACC C2 Qualitative analysis common aspects of making meaning of data https://youtu.be/oK8lv3Wd9Yg</p> <p>RESPACC O4 Qualitative analysis common aspects of making meaning of data http://www.studiipaliative.ro/wp-content/uploads/2022/09/8.RESPACC-O4_Qualitative-analysis-common-aspects-of-making-meaning-of-datavFinal.pdf</p> <p>Richards, L., & Morse, J., M. (2013). Readme first for a user's guide to qualitative methods, (3rd ed.) Thousand Oaks: Sage.</p> <p>Payne, S. Qualitative methods of data collection and analysis. IN: Addington-Hall, J.M., Bruera, E., Higginson, I.J., Payne, S. Research Methods in Palliative Care. (2007) Oxford: Oxford University Press.</p> <p>Lyons, E., & Coyle, A. (2016) Analysing Qualitative Data in Psychology. (3rd ed.) London. SAGE Publications Ltd.</p>
<p>9. When and how to use mixed methods</p> <p>These resources introduce mixed methods with a focus on the use of case study methods in palliative care contexts.</p>	<p>RESPACC C2 When and how to use mixed methods https://youtu.be/xzdh3W46w0U</p> <p>RESPACC O4 When and how to use mixed methods http://www.studiipaliative.ro/wp-content/uploads/2022/09/9.RESPACC-O4_When-and-how-to-use-mixed-methods.pdf</p> <p>Walshe C (2020) The case for mixed methods in applied health research (chapter 16) In Walshe, C. & Brearley, S. (eds). Handbook of Theory and Methods in Applied Health Research: Questions, Methods and Choices. Edward Elgar. Cheltenham: United Kingdom.</p>
<p>10. Assessing the quality of research</p> <p>These resources highlight the importance of identifying the strengths and weaknesses of research methods, and suggests what to consider when appraising quantitative and qualitative research. It offers different tools that might assist with the process of critical appraisal.</p>	<p>RESPACC C2 Assessing quality of research https://youtu.be/s0XebJSap_w</p> <p>RESPACC O4 Assessing quality of research http://www.studiipaliative.ro/wp-content/uploads/2022/09/10.-RESPACC-O4_-Assessing-quality-of-research.pdf https://casp-uk.net/casp-tools-checklists/</p>

	<p> https://jbi.global/critical-appraisal-tools https://journals.sagepub.com/home/QHR - search "Appraising the Evidence" https://www.equator-network.org/ </p> <p>Aveyard, H., Payne, S. A., & Preston, N. J. (2021). A post-graduate's guide to doing a literature review in health and social care. 2nd edition Oxford University Press: Oxford.</p> <p>Dodd A, Reilly S, Faraz A, Thomas C (2020) Critical appraisal: how to examine and evaluate research evidence In Walshe, C. & Brearley, S. (eds). Handbook of Theory and Methods in Applied Health Research: Questions, Methods and Choices. Edward Elgar. Cheltenham: United Kingdom.</p>
<p>11. Research Ethical considerations</p> <p>Research Ethics focuses on the application of ethical principles and legislation in the conduct of clinical research, aiming to protect participants, especially the more vulnerable. Ethical principles and procedures ensure that the study is likely contribute to improving clinical and social work practice, as well as safeguard the validity and quality of the scientific process per se.</p>	<p>RESPACC C2 Research ethics 1 & 2 https://youtu.be/7qwec8836aM RESPACC Research ethics 2 - YouTube</p> <p>RESPACC O4 Research ethics 1 & 2 http://www.studiipaliative.ro/wp-content/uploads/2022/09/11.RESPACC-O4_Research-ethics-Part-1.pdf http://www.studiipaliative.ro/wp-content/uploads/2022/09/11.RESPACC-O4_Research-ethics-Part-2.pdf</p> <p>Addington-Hall JM, Bruera E, Higginson I, Payne S (eds) Research Methods in Palliative Care. Oxford University 2007, Ch1, p.1-9 - see chapter 3, 10, 17</p> <p>Sandra Martins Pereira and Pablo Hernández-Marrero. Research ethics in palliative care: A hallmark in Palliative Medicine. Editorial Palliative Medicine. https://journals.sagepub.com/doi/full/10.1177/0269216319827178</p> <p>Gysels M et al, (2013) MORECare research methods guidance development: Recommendations for ethical issues in palliative and end-of-life care research. Palliative Medicine 27(10) 908–917 MORECare research methods guidance development: Recommendations for ethical issues in palliative and end-of-life care research (sagepub.com)</p>
<p>12. How to implement a research project</p>	<p>RESPACC C2 How to implement a research project https://youtu.be/RNh0Wfh9ALE</p>

<p>These resources explain different strategies required to implement a research project.</p>	<p>RESPACC O4 How to implement a research project http://www.studiipaliative.ro/wp-content/uploads/2022/09/12.RESPACC-O4_How-to-implement-a-research-project.pdf</p> <p>Bell J (2010) Doing your research project: A guide for first-time researchers in education, health and social science. (5th ed) Open University Press</p> <p>Blum D, Inauen R, Binswanger J, Strasser F. Barriers to research in palliative care: A systematic literature review. Progress in Palliative Care. 2015;23(2):75-84. https://doi.org/10.1179/1743291X14Y.0000000100</p>
<p>13. Potential impact/benefit of research; dissemination of results</p> <p>These resources introduce the notion of research impact and how it can be measured. It also highlights a range of strategies for research dissemination.</p>	<p>RESPACC C2 What does impact and dissemination mean https://youtu.be/L_8xA8ye1jM</p> <p>RESPACC O4 What does impact and dissemination mean http://www.studiipaliative.ro/wp-content/uploads/2022/09/13.RESPACC-O4_What-does-impact-and-dissemination-mean.pdf</p> <p>Evidence-based Model for the Transfer & Exchange of Research Knowledge (EMTReK) (www.knowledgetransfer.ie) Developing & implementing a 'System' of structured network-wide dissemination & knowledge transfer activities Palliative Hub Pro (professionalpalliativehub.com)</p>

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