Abstract Book

1st Evidence-Based Research Conference: Increasing the Value of Research

16th – 17th November 2020

evbres
Evidence-Based Research

The Evidence-Based Research Network

IF I HAVE SEEN FARTHER, IT IS BY STANDING ON THE SHOULDERS OF GIANTS
- ISAAC NEWTON

Contents

Introduction

The theme of the 1st Evidence-Based Research (EBR) Conference - "Increasing the Value of Research" - reflects the ambition to ensure that all new studies address research questions that matter in a valid, efficient and accessible manner. One key step towards this goal is to start using prior research in a systematic and transparent way, when justifying and designing new studies, and when placing new results in context. This approach will help ensure that ethical approval, funding, and publication is reserved only for studies that are necessary – based on knowledge gaps identified through syntheses of earlier trials – and relevant – justified by obtaining the perspective of end-user groups directly affected by the new study.

The overall theme was split into 8 areas for abstract submission: Meta-research related to EBR; Stakeholders' role in EBR; Prerequisites of EBR; Obstacles to implementing an EBR approach; Challenges of EBR; Local initiatives in EBR; Practice/Service development using EBR; and Innovative learning methods in EBR.

Successful abstracts were presented online at the Conference on 16th-17th November 2020 in one of two categories:

1. Oral presentation: Presentations in this category were 20 minutes long in total, allowing time for audience questions.
2. "Poster" presentation: Presentations in this category were 10 minutes long in total, allowing time for audience questions.

We would like to thank everyone for their abstract submissions.

The 1st EBR Conference 2020, Abstract Committee

Maritta Välimäki, University of Turku, Finland and Xiangya Nursing School, Central South University, China

Hans Lund, Western Norway University of Applied Sciences, Norway

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Tamara Prevendar, Blagoje Bersa Music School, Croatia

Tatjana Zorcec, University Children's Hospital, North Macedonia

Matt Westmore, the Wessex Institute, Faculty of Medicine, University of Southampton, UK

Caroline Blaine, EVBRES

Conference Program of Abstract/Poster Sessions

Time (CET)		Monday, 16 November 2020 DAY 1
11:30 - 13:00		**Abstract / Poster Session 1 - EBR stakeholders** **Chair: Eduard Baladia** Vice-chair: Simon Kolstoe; Gate-keeper: Mona Nasser
	11:30-11:50	#16 *User involvement in research: challenges and opportunities in conducting systematic reviews* Kirsi Hipp
	11:50-12:10	#5 *Non-pharmacological therapies for improving sleep quality in people living with HIV: Do we still need new studies?* Jingjing Meng
	12:10-12:30	#26 *What works in peer review and decision-making approaches to grant funding allocation: a realist synthesis* Alejandra Recio-Saucedo
	12:30-12:50	#35 *Waste in external validation studies of clinical prediction rule (CPR): Recursive cumulative meta-analyses of Framingham Wilson coronary heart disease (CHD) rule* Jong-Wook Ban
	12:50-13:00	#24 *Protocol for a mixed method approach on Scientific Medical Journals' barriers and facilitators for the reduction of research waste - an EVBRES initiative* Robert Prill
14:30 - 16:00		**Abstract / Poster Session 2 - Developing and promoting EBR** **Chair: Jitka Klugarova** Vice-chair: Hrund Thorsteinsson; Gate-keeper: Amina Huseinbegovic
	14:30-14:50	#10 *How Can Sociological Approach to EBM be Useful for EBR Implementation?* Silvia Capikova
	14:50-15:10	#25 *There is no interest in evidence-based research, actually' – a qualitative study on barriers and facilitators of implementing EBR approach* Anna Prokop-Dorner
	15:30-15:40	#31 *Comparability of quality assessments of systematic reviews/meta-analyses in nutrition using AMSTAR-2 and ROBIS* Mateusz Swierz
	15:40-15:50	#17 *Educational interventions to improve literature searching skills: A scoping review of intervention studies* Julian Hirt
	15:50-16:00	#27 *ReSNetSLT: Using a conceptual value creation framework to evaluate the impact of an online initiative for promoting evidence-based research in allied health* Hazel Roddam

Key
Abstract (Oral) 20 min (incl: Q&A)
Abstract (Poster) 10 min (Incl Q&A)

Time (CET)		Tuesday, 17 November 2020 DAY 2
09:30-11:00		**Abstract / Poster Session 3 - Efficient production of SRs** **Chair: Moriah Ellen** Vice-chair: Rene Spijker; Gate-keeper: Liliya Eugenevna Ziganshina
	09:40-10:00	#23 *Increasing the value of research by improving the efficient production and updating of systematic reviews* Raluca Sfetcu and Lisa Affengruber
	10:00-10:20	#34 *Effectiveness and safety of providing free HIV self-testing kits among men who have sex with men in China: is there a knowledge gap?* Zhang Ci
	10:20-10:40	#14 *Strategies for effective study author contact to leverage existing research data when preparing systematic reviews – a randomised study within a review (SWAR)* Käthe Goossen
	10:40-10:50	#21 Developing questions for rapid reviews based on the routine use of medical data to identify adverse drug reactions (ADRs) Cristhian Morales-Plaza
	10:50-11:00	#18 *Ethics of clinical trials during the SARS-CoV-2 pandemic - preliminary findings of trial informativeness* Katarzyna Klas
11:30-12:40		**Abstract / Poster Session 4 - Meta-research** **Chair: Dawid Pieper** Vice-chair: Birgitte Nørgaard; Gate-keeper: Sandra Buttigieg
	11:30-11:50	#15 *Quality of clinical trial protocols – evidence for improvement? The Adherence to SPIrit Recommendations in Switzerland, Canada, and Germany (ASPIRE-SCAGE) Study* Matthias Briel
	11:50-12:10	#30 *Publication and reporting of clinical trial results: cross sectional analysis across academic medical centers* Karolina Strzebonska
	12:10-12:30	#13 *Research waste in published systematic reviews regarding coffee consumption and cancer risk* Paulina Glodo
	12:30-12:40	#7 *Prevention, management, and control of leptospirosis in India: An evidence gap map* Deepti Beri

Key
Abstract (Oral) 20 min (incl: Q&A)
Abstract (Poster) 10 min (Incl Q&A)

Oral Presentations

#16 User involvement in research: challenges and opportunities in conducting systematic reviews

Kirsi Hipp[1]*, Minna Anttila[1], Maritta Välimäki[1,2]

(1) Department of Nursing Science, University of Turku, Finland; (2) Xiangya Nursing School of Central South University, Changsha, Hunan, China

*Corresponding author: kirsi.hipp@utu.fi

Introduction: User involvement in mental health research has been highlighted in research policies. However, conducting systematic reviews related to user involvement is challenging due to inconsistent use of concepts and empirical methods in studies. We aimed to explore how user involvement in research has been defined and studied, and its impact based on the literature. Challenges in conducting the review will also be described.

Methods: A literature was searched with CINAHL, PsycINFO, PubMed, and Scopus to find papers published in English between the years 2010 and 2020. A narrative review was conducted.

Results: We included four reviews and 18 empirical papers. The studies were conducted in the UK (n = 14), Australia (n = 6), Denmark (n = 1), and Norway (n = 1). A variety of methods have been used including qualitative methods (n = 12; interviews, focus groups, reflective writings, secondary analyses, participatory action researches), quantitative methods (n = 4; surveys, document analysis, comparison of data collection and analysis), and mixed methods (n = 2). User involvement in research has been defined as advising or consulting, co-production, and user-led research. Positive impacts of user involvement were users' ability to identify relevant research topics and ethical issues, support in recruitment and data collection, enriching the analysis, more rigorous knowledge, and implementation of the results into care practices. Barriers, such as tokenism and culture differences were also identified. Challenges in this systematic review process were conceptual inconsistency and insufficient description of user involvement in research publications.

Conclusions: More focused, clearly defined and high quality studies are still needed to explore how user involvement could be increased in empirical studies. Our findings can be used to identify and design new research topics with strong emphasis of user involvement, not only in the mental health field but other areas as well.

#5 Non-pharmacological therapies for improving sleep quality in people living with HIV: Do we still need new studies?

Jingjing Meng[1], Chunyuan Zheng[1], Maritta Välimäki[1,2], Honghong Wang[1]*

(1)Xiangya Nursing School of Central South University, Changsha, Hunan, China; (2)University of Turku, Department of Nursing Science, Finland

*Corresponding author: honghong_wang@hotmail.com

Introduction: Sleep problems in people living with HIV (PLWH) are common. They may be associated with poor adherence with antiretroviral therapy and severity of self-reported HIV symptoms. Unfortunately, sleep problems are often poorly understood and persons may be treated with pharmacological therapies only with different side effects. This review will systematically gather existing studies and describe the effectiveness of non-pharmacological interventions to improve sleep quality in persons living with HIV. The knowledge will be used to decide whether new studies related to impact of non-pharmacological studies are still needed.

Methods: A systematic literature search was conducted on PubMed, EMBASE, Cochrane Central Registry of Controlled Trials (CENTRAL), Cumulative Index to Nursing and Allied Health Literature (CINAHL), Web of Science, China National Knowledge Infrastructure (CNKI), Wanfang Data, China Biology Medicine disc (CBM) and http://clinicaltrials.gov/ on June 29th, 2020. Additionally, the references of the relevant studies were searched manually. Randomized controlled trials (RCTs) or quasi-experimental studies aiming at improving sleep quality in HIV-infected people by using nonpharmacological therapies were included. The selection process was executed based on the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) flow diagram, and study quality was assessed with the Joanna Briggs Institute (JBI) critical appraisal checklists. Narrative analysis was performed. However, meta-analysis was not conducted due to substantial heterogeneity between included studies.

Results: A total of 11 studies (7 RCTs and 4 pretest-posttest studies) involving 866 participants were included. Non-pharmacological interventions included behavioural therapy, alternative therapy (auricular plaster therapy and acupuncture) and speed of processing training with transcranial direct current stimulation (tDCS). Three studies were rated as low quality while the others were of moderate quality. Both sleep quality and quantity evaluated by subjective measurements (scales and sleep diary) or objective measurement (wrist actigraphy) showed improvements after the intervention.

Conclusions: Due to the moderate quality and limited numbers of studies, more high-quality RCTs are needed in the future to test the long-term effects of non-pharmacological therapies.

#26 What works in peer review and decision-making approaches to grant funding allocation: a realist synthesis

Alejandra Recio Saucedo*, Ksenia Kurbatskaya, Katie Meadmore, Kathryn Fackrell, Abby Bull, Simon Fraser, Amanda Blatch-Jones.

Affiliation (all authors): Wessex Institute, National Institute for Health Research Evaluation, Trials and Studies Coordinating Centre, University of Southampton, UK

*Corresponding author: a.recio-saucedo@soton.ac.uk

Introduction: Allocation of research funds relies on peer review processes to support funding committee decisions. A seemingly lack of alternatives to support decisions leaves peer review as the de facto system to determine the quality and relevance of research applications. In the UK, peer review is at the heart of the National Institute for Health Research (NIHR) to increase research efficiency from application through to dissemination.

Methods: We conducted a realist synthesis of approaches to peer review and decision-making to provide an explanatory analysis of what interventions in peer review work, for whom and how.

Results: Of 1860 sources identified through systematic database searches and screens of grey literature, 95 references were relevant to this synthesis. 51 sources presented hypothetical innovations to peer review and did not report an experimentally evaluated or piloted impact of interventions on decisions, funder processes, cost or time. 44 publications reported on interventions that were tested/implemented and led to short- (results relevant to the study) and long-term (interventions adopted widely) outcomes. Interventions with long-term outcomes included: shorter proposals, virtual funding committees, diversifying funding panels with greater participation of public and patient communities, new investigator schemes and the use of technology to support panel discussions. Innovative interventions included: eDelphis, reviewer blinding, open review, use of a 'golden ticket', and modified lotteries. The factors that influenced the successful implementation of interventions were related to stakeholders (e.g. funders) and drivers (e.g. reducing administrative burden) behind the interventions.

Conclusions: The synthesis allowed us to move beyond summarisation of existing evidence on peer review and decision-making and provide fresh, realist insight into opportunities available to enhance current practices in funding research. These findings will be used to inform the wider programme of research conducted by the NIHR Research on Research programme which may be transferable to other funding organisations.

#35 Waste in external validation studies of clinical prediction rule (CPR): Recursive cumulative meta-analyses of Framingham Wilson coronary heart disease (CHD) rule

Jong-Wook Ban*

Centre for Evidence-Based Medicine, University of Oxford; Nuffield Department of Primary Care Health Sciences, Oxford, UK

*Corresponding author: jong-wook.ban@conted.ox.ac.uk

Introduction: External validation studies generate evidence by testing and updating a CPR in different populations, and by contributing to estimating its average performance in meta-analyses. While most cardiovascular CPRs do not have any external validation, many external validations have been repeated for some CPRs. I examined wastes in external validation studies of Framingham Wilson CHD rule.

Methods: I conducted a forward citation search of Framingham Wilson CHD rule to identify external validation studies. For studies primarily aimed to externally validate Framingham Wilson CHD risk rule, I assessed whether authors concluded the CPR performed adequately or updated it when performed poorly. I conducted recursive cumulative meta-analyses of Predicted/Observed (P/O) event ratio and c-statistic.

Results: I identified 97 external validation studies. For 37 studies, the primary aim was to externally validate Framingham Wilson CHD rule. Of these, 18 (48.6%) concluded the CPR performed poorly but did not update it, and 4 (10.8%) did not clearly conclude whether it performed adequately. In a recursive cumulative meta-analysis of 58 studies that reported P/O ratio, pooled estimates converged after the 32nd study and the ratio of current to previous pooled P/O ratio became stable, with a final summary P/O ratio of 1.323 (95% CI, 1.130-1.548), Figure 1. Therefore, 26 (44.8%) studies contributed little in estimating the summary P/O ratio. In an analysis of 38 studies that reported c-statistic, pooled estimates converged after the 18th study and the ratio of current to previous pooled c-statistic became stable after the 3rd study, with a final summary c-statistic of 0.689 (95% CI, 0.671-0.707), Figure 2. Adding 20 (52.6%) studies had little impact on estimating the summary c-statistic.

Conclusion: The majority of external validation studies did not generate meaningful evidence about Framingham Wilson CHD rule. Unnecessary external validation studies might be avoided by systematically examining existing external validation studies.

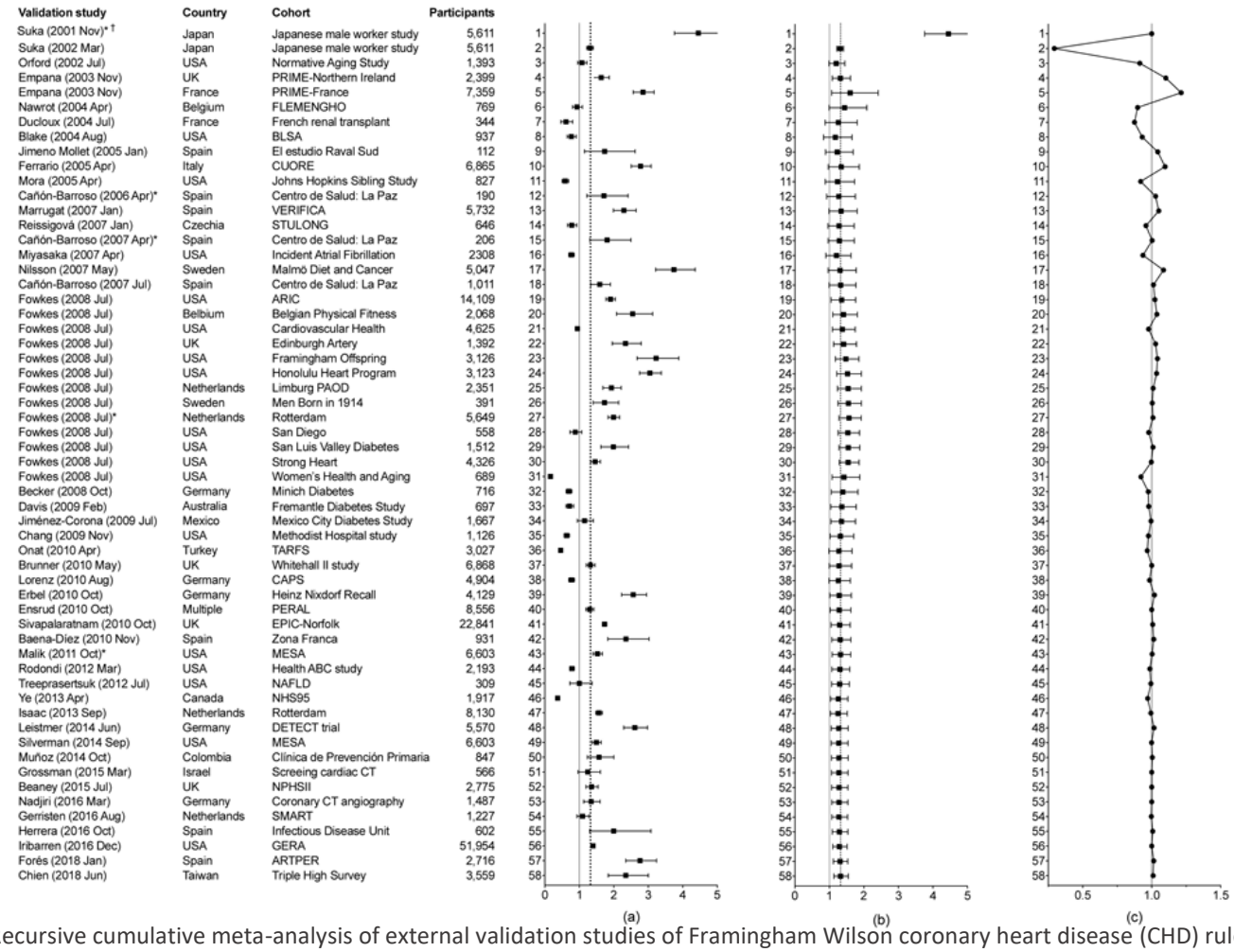

Figure 1. Recursive cumulative meta-analysis of external validation studies of Framingham Wilson coronary heart disease (CHD) rule: (a) Predicted/Observed (P/O) event ratio, (b) pooled P/O ratio, and (c) ratio of current to previous pooled P/O ratio.

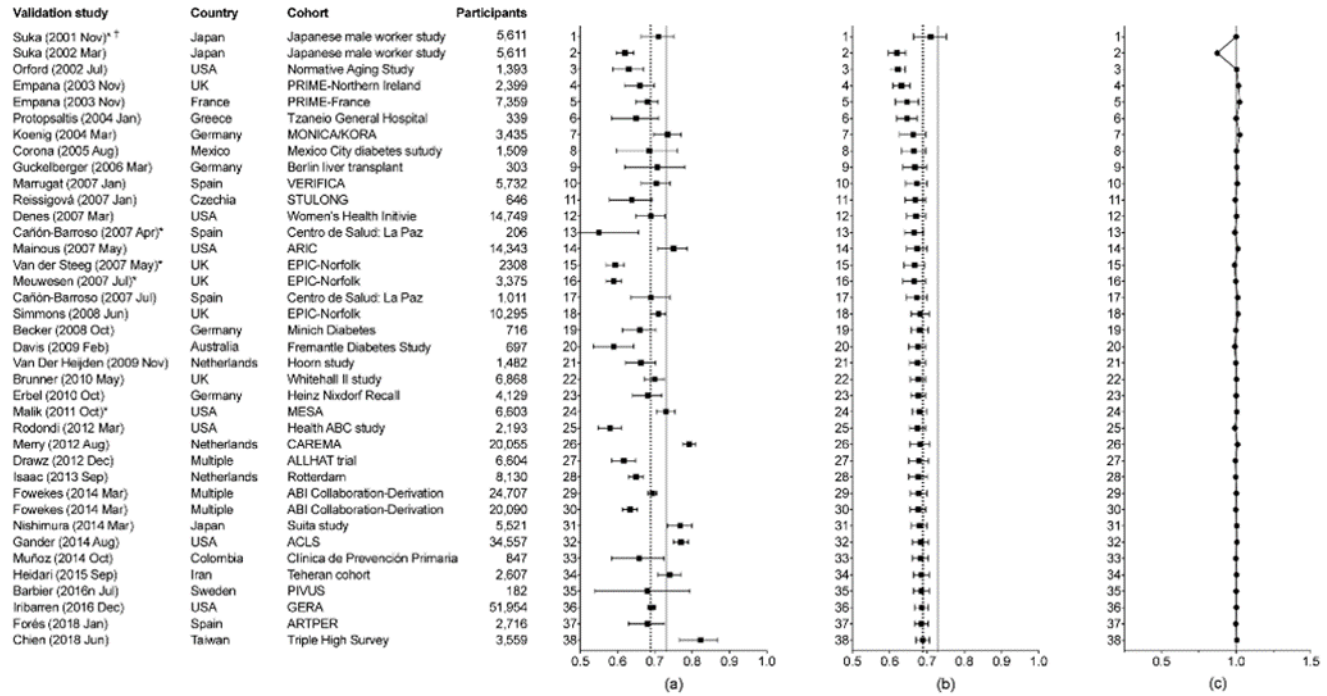

Figure 2. Recursive cumulative meta-analysis of external validation studies of Framingham Wilson coronary heart disease (CHD) rule: (a) c-statistic, (b) pooled c-statistic, and (c) ratio of current to previous pooled c-statistic.

#10 How Can a Sociological Approach to EBM be Useful for EBR Implementation?

Silvia Capikova*

Institute of Social Medcine and Medical Ethics, Comenius University in Bratislava, Faculty of Medicine, Slovak Republic

*Corresponding author: silvia.capikova@fmed.uniba.sk

Introduction: EBR has already proven its usefulness for clinical medicine and public health, however, despite of its rigorous methodology and efficiency, EBM is often facing biases and obstacles. Sociology has developed as evidence-based science and into the multiparadigmatic science, to study and understand social facts, unravel forces beyond experiences of everyday life and define laws of social life. Beyond health-related phenomena like illness behaviour or social determinants of health, medicine itself is also subject of sociological study, e.g. by scholars such as R.K.Merton, B.Latour, P.Bourdieu, B.Pescosolido. The goal of this paper is to show, how EBR can profit from sociological approach and theoretical analysis (method described e.g. by G.Jasso).

Methods: Theoretical analysis.

Results: Medicine can be studied sociologically from different standpoint epistemologies, and can be focused as social subsystem, social institution, field of practice, or as a structured field of power relations. Research constitutes an integral part of medicine. Medicine depends on the cycle of knowledge production, verification, dissemination, and implementation. Concept of 'scientific revolution' developed by T.Kuhn allows to understand dynamic of medicine as a system of knowledge and its relation to scientific community. Besides EBM, several competing paradigms in contemporary medicine can be identified. Concepts of the 'power field' or 'habitus' developed by Pierre Bourdieu can be useful instruments to detect barriers of embedding of EBM as taken-for-granted approach in medicine.

Conclusions: Sociology offers quantitative analysis of 'hard' data, but also understanding and better orientation in the social environment, in which EBR evolves. Sociological approach (sociology of medicine and sociology of knowledge) can be helpful for more precise identification of challenges and determinants of EBR implementation. Key drivers of wider acceptance of the value EBR brings to medicine need further research, as their impact can vary between but also within national contexts.

#25 'There is no interest in evidence-based research, actually' – a qualitative study on barriers and facilitators of implementing EBR approach

Anna Prokop-Dorner[1]*, Tina Poklepovic-Pericic[2], Jitka Klugarova[3,4], Joanna Zajac[1], Maritta Välimäki[5,6], Luca Pingani[7], Sandra Buttigieg[8], Simon C Lam[9], Malgorzata Bala[1]

(1) Jagiellonian University Medical College, Cracow, Poland; (2) Cochrane Croatia; (3) The Czech Republic (Middle European) Centre for Evidence-Based Healthcare: A Joanna Briggs Institute Centre of Excellence; (4) Institute of Biostatistics and Analyses, Masaryk University, Brno, Czech Republic; (5) Department of Nursing Science, Faculty of Medicine, University of Turku, Finland; (6) Xiangya Nursing School of Central South University, Changsha, Hunan, China; (7) Department of Biomedical, Metabolic Sciences and Neurosciences, University of Modena and Reggio Emilia, Italy; (8) Health Services Management, Faculty of Health Sciences, University of Malta, Msida, Malta; (9) Hong Kong Polytechnic University, Hong Kong

*Corresponding author: anna.prokop@uj.edu.pl

The aim of the study was to understand the views of the medical professionals on the barriers and facilitators related to being evidence based.

We conducted four Focus Group Interviews (FGI) with professionals (n=23) with various backgrounds (medicine, dentistry, midwifery, physiotherapy, dietetics, psychology, pharmacy, biostatistics) and levels of mastering Evidence-Based Research (EBR) from different European countries. During the interviews participants discussed their experiences with practicing EBR, perceived application of systematic reviews (SR) as well as experienced obstacles and received support when being evidence based in work. The interviews were audio-recorded, transcribed and inductively coded. The process of constant comparisons was used to categorize the data and organized it into themes.

The analysis revealed that the biggest obstacle of being evidence-based are a low awareness of the significance of EBR among scientific, managerial or clinical staff and the lack of sufficient coverage of this concept in the university curricula. The study participants from various work contexts encountered expectations compromising the evidence-based approach. For the majority of interviewees some resources were problematic, such as time, money, human resources or technical resources. On the side of facilitators, the study participants discussed the significance of institutional support, opportunity to work with information specialists and having access to data bases as well as participating in international initiatives promoting EBR approach. The study participants suggested that the following ideas to enhance the position of EBR should be considered: additional funding for SRs, introduction of a requirement of conducting SR in order to justify new scientific inquiries and development of educational strategies to promote the EBR approach.

The results of the study shed light on the broader context of (not) being evidence-based in various fields and will inform a further quantitative inquiry.

Acknowledgments: We thank Dr Marija Palibrk (University of Montenegro), Dr Mersiha Mahmić-Kaknjo (Cantonal Hospital Zenica) and Dr Tony Danso-Appiah (University of Ghana) for their engagement as FGI co-moderators.

#23 Increasing the value of research by improving the efficient production and updating of systematic reviews

Barbara Nussbaumer-Streit[1]*, Moriah Ellen[2], René Spijker[3], **Raluca Sfetcu**[4], **Lisa Affengruber**[1] on behalf of EVBRES Working Group 3

(1) Cochrane Austria, Danube-University Krems, Austria; (2) Department of Health Systems Management, Guilford Glazer Faculty of Business and Management and Faculty of Health Sciences, Ben-Gurion University of the Negev, Israel; (3) Cochrane Netherlands; (4) Școala Națională de Sănătate Publică, Management și Perfecționare în Domenbiul Sanitar București, România

*Corresponding author: Barbara.nussbaumer-streit@donau-uni.ac.at

Introduction: The overall goal of WG3 within the EVBRES COST Action is to identify areas and methods for improving the efficient production and updating of systematic reviews. To achieve this goal, we have formulated the following three research questions: (1) “Which areas of systematic review production and updating are resource intensive?”; (2) “Why are systematic review production and update processes resource intensive?”; and (3) “Which of the available methods and tools can improve the efficiency of systematic reviews production?”.

Methods: To answer research question 1 we conducted a scoping review which will include SR and empirical and simulation studies that assess resource use in systematic reviews of health interventions, diagnostic, or prognostic studies, without any limits on languages or publication status. To address question 2 we conducted in-depth, semi-structured interviews with experts who have actively contributed to the production or update of systematic reviews on health-related topics including clinical, health services, public health and health policy research. In the interviews we explored which steps in the systematic review production and update process are resource intensive and participants’ perceptions of potential methods and technologies to prioritize and expedite elements of the process. To answer question 3 we are conducting a second scoping review.

Results: Currently these three projects are still ongoing, but in November 2020 we will be able to present results of the first scoping review and the qualitative study. Besides presenting results we would like to discuss their implications for research with discussants and the audience during the symposium.

Conclusions: The results of our research should guide future methods improvement and validity studies in this area and ultimately help to accelerate the systematic review production without compromising quality.

#34 Effectiveness and safety of providing free HIV self-testing kits among men who have sex with men in China: is there a knowledge gap?

Zhang Ci[1], Deborah Koniak-Griffin[2], Han-Zhu Qian[1,3], Lloyd A. Goldsamt[4], Honghong Wang[1], Mary-Lynn Brecht[2], Xianhong Li[1]*

(1) Xiangya School of Nursing, Central South University, Changsha, China; (2) School of Nursing, University of California at Los Angeles, Los Angeles, USA; (3) School of Public Health, Yale University, New Haven, USA; (4) Rory Meyers College of Nursing, New York University, New York, USA.

*Corresponding author: xianhong_li@csu.edu.cn

Introduction: HIV epidemic is rapidly increasing among men who have sex with men (MSM) in China, yet HIV testing remains suboptimal. Promoting HIV self-testing (HIVST) is already supported by UNAIDS and WHO. However, China has not issued a guideline on HIVST. The aim of this study is two-way. First, a systematic review was conducted to identify whether there is a knowledge gap in studies related to HIVST. Second, the review study results were used as bases for the empirical research.

Methods: We conducted first a systematic review and meta-analysis to describe current evidences on effectiveness and safety of providing HIVST kits among MSM. Seven electronic databases and abstracts from six HIV/sexually transmitted infections conferences were searched (Jan 2000-April 2017). The quality of identified studies was assessed with JBI appraisal tools. Second, based on review results, we designed and conducted a RCT.

Results: The meta-analysis indicated that HIVST could increase HIV testing frequency. However, rigorously designed research on effectiveness and safety of HIVST was limited. Thus, we design a two-arm RCT to examine the effectiveness and safety of providing HIVST kits among 230 Chinese MSM (April 14 - June 30, 2018) with 12 months follow-up at 4 time points (assessment every 3 months). The RCT demonstrated the average frequency of HIV tests in the intervention arm (3.75) was higher than that in the control arm (1.80; $P<0.001$). Providing HIVST did not decrease consistent condom usage rate ($P>0.05$) and increase sexual partners number ($P>0.05$).

Conclusions: Through the systematic review and meta-analysis, we were able to identify the knowledge gap on HIVST promotion among MSM. Based on the review results, it was evident that new RCT is needed. This two-way study is a good example how EBR can offer valuable steps to indicate whether new studies are needed or not.

#14 Strategies for effective study author contact to leverage existing research data when preparing systematic reviews – a randomised study within a review (SWAR)

Käthe Goossen*, Tanja Rombey, Charlotte Kugler, Karina K De Santis, Dawid Pieper

Affiliation (all authors): Institute for Research in Operative Medicine (IFOM), Faculty of Health, School of Medicine, Witten/Herdecke University, Cologne, Germany

*Corresponding author: kaethe.goossen@uni-wh.de

Introduction: Incomplete reporting in primary studies is an obstacle to comprehensive systematic reviews (SR). To avoid wasting non-reported data, contacting study authors is essential [1]. However, methodological evidence on effective author contact is sparse. An SR of methods for obtaining missing data concluded that authors should be contacted by email [2]. Personalisation of author queries was found to improve response rates [3]. The Cochrane Handbook lists sources of contact details and suggests contacting alternative authors [4]. Building on the strategies identified in previous research, our SWAR aimed to evaluate two approaches for requesting additional information from authors of non-randomised studies [5].

Methods: Randomised SWAR conducted within an SR on the hospital volume-outcome relationship in total knee arthroplasty. In January-May 2020, we contacted all authors by email, using addresses identified from publications, institutional websites, PubMed or web searches, and providing details of the SR. If no reply was received, we sent one reminder, then contacted alternative authors. We compared study-specific questions as email main text ('Email' group) to self-developed, standardised data request forms as attachments ('Attachment' group). The primary outcome was the response rate, secondary outcomes were the data completeness rate and reviewer time invested to prepare emails and communicate with authors. Results: Of 57 study authors, n=29 were randomised to the 'Email' and n=28 to the 'Attachment' groups. The response rate was 93% ('Email') versus 75% ('Attachment'; odds ratio, OR=4.5, 95% confidence interval [0.9–24.0]). The data completeness rate was 55% ('Email') versus 36% ('Attachment'; OR=2.2 [0.8–6.4]). The mean reviewer time invested was 20.2±14.4 ('Email') versus 31.8±14.4 minutes/author ('Attachment'; mean difference 11.6 [4.1–19.1]).

Conclusions: The high response rates confirm that our approach to contact authors was effective overall. Requesting data using email text required less reviewer time than preparing attachments, and retrieved complete data at least as often.

1. Contacting of authors modified crucial outcomes of systematic reviews but was poorly reported, not systematic, and produced conflicting results. J Clin Epidemiol, 2019. 115: p. 64-76.
2. Methods for obtaining unpublished data. Cochrane Database Syst Rev, 2011(11): p. Mr000027.
3. Mail merge can be used to create personalized questionnaires in complex surveys. BMC Res Notes, 2015. 8: p. 574.
4. Chapter 5: Collecting data. In: Higgins JPT, Thomas J, Chandler J, Cumpston M, Li T, Page MJ, Welch VA (editors). Cochrane Handbook for Systematic Reviews of Interventions version 6.0 (updated July 2019). Cochrane, 2019.
5. Contacting authors about additional study data – a randomised study comparing two strategies (SWAR12). https://www.qub.ac.uk/sites/TheNorthernIrelandNetworkforTrialsMethodologyResearch/FileStore/SWARFileStore/Filetoupload,949593,en.pdf. Accessed 27 July 2020.

#15 Quality of clinical trial protocols – evidence for improvement? The Adherence to SPIrit Recommendations in Switzerland, Canada, and Germany (ASPIRE-SCAGE) Study

Dmitry Gryaznov[1]; Benjamin Kasenda[1,2]; Benjamin Speich[3]; Erik von Elm[4]; **Matthias Briel**[1]*

(1) Basel Institute for Clinical Epidemiology and Biostatistics, Department of Clinical Research, University Hospital Basel, Switzerland; (2) Department of Medical Oncology, University Hospital Basel, Switzerland; (3) Oxford Clinical Trials Research Unit and entre for Statistics in Medicine, Nuffield Department of Orthopaedics, Rheumatology and Musculoskeletal Sciences, University of Oxford, UK; (4) Cochrane Switzerland, Centre for Primary Care and Public Health (Unisanté), University of Lausanne, Switzerland

*Corresponding author: matthias.briel@usb.ch

Introduction: A comprehensive protocol is a pre-requisite for valuable results in a randomized clinical trial (RCT). Meta-research showed that the quality of RCT protocols is often poor. We investigated whether the comprehensiveness of RCT protocols improved after the publication of the SPIRIT statement in 2013. In addition, we determined trial characteristics associated with non-adherence to SPIRIT items.

Methods: We included a random sample of 257 RCT protocols approved by Research Ethics Committees in Switzerland, Canada, and Germany in 2012, and 292 protocols from 2016. For each protocol, we extracted general trial characteristics and evaluated for each of the SPIRIT checklist items whether the respective information was reported in the protocol. We calculated the adherence to SPIRIT in terms of the proportion of reported SPIRIT items per protocol and the proportion of trial protocols reporting individual SPIRIT items.

Results: We found a small improvement in the median proportion of reported SPIRIT items between protocols from 2012 (median 72%, interquartile range [IQR], 63%-79%) and 2016 (median 77%, IQR, 68%-82%). The improvement actually happened only in investigator-sponsored protocols (interaction p-value <0.01) with a median proportion of reported SPIRIT items increasing from 64% (IQR, 55%-72%) in 2012 to 76% (IQR, 64%-83%) in 2016, while for industry-sponsored protocols median adherence remained on a high level (77%, IQR 72%-80% in 2012, and 77%, IQR 72%-82% in 2016). Improvement in adherence of investigator-sponsored protocols was due to an improvement in 23 individual SPIRIT items improving by 10% or more. The following RCT characteristics were independently associated with lower adherence to SPIRIT: single centre, no support from CTU or CRO, investigator-sponsoring, and approval in 2012. We found no differences between countries.

Conclusions: Industry-sponsored RCT protocols were more complete according to SPIRIT than investigator-sponsored protocols approved in 2012, but only investigator-sponsored protocols showed significant improvement when compared to 2016.

#30 Publication and reporting of clinical trial results: cross sectional analysis across academic medical centres

Karolina Strzebonska[1]*, Mateusz Wasylewski[1], Łucja Zaborowska[1], Nico Riedel[2], Susanne Wieschowski[3], Daniel Strech[2,4], Marcin Waligora[1]

(1) REMEDY, Research Ethics in Medicine Study Group, Dept. of Philosophy and Bioethics, Jagiellonian University Medical College, Kraków, Poland; (2) QUEST Center for Transforming Biomedical Research, Berlin Institute of Health, Germany; (3) Institute for Ethics, History, and Philosophy of Medicine, Hannover Medical School, Germany; (4) Charité Universitätsmedizin Berlin, Germany.

*Corresponding author: karolina.strzebonska@uj.edu.pl

Introduction: The results of completed clinical trials are crucial for decision making in evidence-based medicine and inform future research directions. Despite the obligation to make publicly available the results of any research on human subjects, the World Health Organization reports that currently about 50% of completed clinical trials remain unreported. The aim of this study was to determine rates of publication and reporting of results for completed clinical trials across all academic medical centres (AMCs) in Poland between 2009 and 2013.

Methods: We used the Aggregate Analysis and manual search of ClinicalTrials.gov to identify all interventional clinical trials registered on ClinicalTrials.gov with a completion date between 2009 and 2013. A trial was assigned to an AMC if the AMC was either mentioned as a “responsible party” or as a “facility”. For each of the included studies, a publication was searched independently by two researchers in a 4-step process on: ClinicalTrials.gov, PubMed, Google Scholar and Web of Science.

Results: We identified 1267 interventional clinical trials completed between 2009 and 2013 registered on Clinicaltrials.gov across Polish cities housing AMCs. Of these, we excluded 962 mainly because these were conducted in a city with an AMC but the name of AMC was not mentioned, leaving 305 trials across 13 AMCs. Overall, 120 of 305 trials (39%) had posted results on ClinicalTrials.gov and 218 (71%) had published their results via journal publication. Sixty-two trials (20%) have not disseminated their results.

Conclusions: More than six years after study completion, 20% of all clinical trials across 13 Polish AMCs did not disseminate their results, which wastes public resources and negatively affects decision making in medicine. The rates of dissemination of clinical trial results may be increased by developing policies highlighting the ethical duty to publish the results within 24 months after a trial completion date.

#13 Research waste in published systematic reviews regarding coffee consumption and cancer risk

Paulina Głodo[1]*, Mateusz J Swierz[1], Dawid Storman[1], Magdalena Koperny[2], Paulina Tobola[1], Wojciech Staskiewicz[3], Magdalena Gorecka[3], Anna Skuza[3], Adam Wach[3], Klaudia Kaluzinska[3], Malgorzata M. Bala[1], Joanna Zajac[1]

(1) Chair of Epidemiology and Preventive Medicine, Department of Hygiene and Dietetics, Jagiellonian University Medical College, Krakow, Poland; (2) Agency for Health Technology Assessment and Tariff System, Poland; (3) Students' Scientific Group of Systematic Reviews, Jagiellonian University Medical College, Krakow, Poland

*Corresponding author: paulina.glodo@uj.edu.pl

Introduction: Plenty of systematic reviews focus on coffee consumption in cancer prevention. Each systematic review should introduce new knowledge to already existing evidence and fit into the knowledge gaps that require answers. The purpose of our research was to systematically examine the overlap and potential research waste of studies identified as systematic reviews/metaanalyses about coffee consumption in the prevention of various types of cancer.

Methods: To find published systematic reviews we searched the following databases: Cochrane Library, MEDLINE, EMBASE. We included studies published from 2010 as SR/MA, with a control group, reporting findings related to the impact of coffee consumption and cancer prevention. Protocol was registered (CRD42019121116) and all the steps of study selection and data extraction were done by two independent reviewers with conflicts solved by discussion or by the third reviewer. After collecting the reviews, we analyzed their results, comparing search strategies, primary researches, publication years, journals' impact factor and other factors. We grouped analysed SR/MA with similar PICO. Among SR with the same cancer location, we analysed and compared the included primary studies.

Results: We focused on a subsample of 101 SR/MA randomly selected from 737 included SR/MA. We noticed overlapping results among similar populations with the same type of cancer and intervention. The results of the reviews found were consistent regardless of the type of cancer.

Conclusions: The results of many SR/MA overlap with each other despite the passing time, which may indicate the research waste. Our results suggest that new SR/MA focusing on the same topic produce the same conclusions and include similar studies.

Posters

#24 Protocol for a mixed method approach on Scientific Medical Journals' barriers and facilitators for the reduction of research waste - an EVBRES initiative

Robert Prill[1,2] *, Tarang Sharma[3,4], Liliya Eugenevna Ziganshina[5,6], Cristian Baicus[7], Robert Schulz[8], Matthias Zirr[2], Klara Brunnhuber[9], Hans Lund[10]

(1) Department of Orthopedics and Traumatology, Brandenburg Medical School Theodor Fontane, Germany; (2) P3 - Physio Praxis Prill, Germany; (3) Evidence to Policy, Copenhagen, Denmark; (4) Medicinrådet, Copenhagen, Denmark; (5) Cochrane Russia ; (6) Department of Pharmacology, Kazan State Medical University, Russia; (7) Carol Davila University of Medicine and Pharmacy Bucharest, Department of Internal Medicine Colentina Hospital, Romania; (8) Berlin Institute of Health QUEST Center, Germany; (9) Elsevier, London, UK; (10) Western Norway University of Applied Sciences, Norway

*Corresponding author: robert.prill@outlook.de

Introduction: The value of Systematic Reviews is known and Editors of Scientific Medical Journals (SMJ) consider Systematic Reviews as Original Research which shows the rising value of this work in the current system. But increasing value and reducing waste in research is one of the biggest challenges in medical research.

Methods: An SMJ activity group was formed as part of the EVBRES COST Action. They agreed to use a mixed methods approach to gain insights from SMJ Editors publishing clinical health trials, being followed by interviews of selected editors and a consensus meeting. The first round will focus on randomly selected journals in Web of Science in the field of "clinical medicine" – aiming to answer predefined questions on research waste and the contribution of SMJs on the reduction of unnecessary research. Editors will be contacted via E-Mail. Based on the answers of the first round and the ideas of the EBR approach of the EVBRES initiative a closed survey for the second round will be conducted and sent out to participating editors of the first round. In the third round, representatives of 10 journals that had previously responded in earlier rounds will be invited for a teleconference to discuss the results and formulate recommendations for facilitating the implementation of identified possible contributions for reducing research waste. The SMJ activity group will formulate EVBRES recommendations on necessary and possible contributions and the barriers and facilitators for SMJs to reduce the production of research waste. Those recommendations will be published and will be part of the EVBRES handbook. Therefore a voting for recommendations will be held in the annual Action Management Committee Meeting of EVBRES.

Registration: The protocol will be published on Open Science Framework and the data registration plan will be submitted to the Norwegian data registration registry.

#31 Comparability of quality assessments of systematic reviews/meta-analyses in nutrition using AMSTAR-2 and ROBIS

Mateusz Swierz[1]*, Dawid Storman[1], Magdalena Koperny[2], Joanna Zajac[1], Paulina Tobola[1], Wojciech Staskiewicz[1], Magdalena Gorecka[1], Anna Skuza[1], Adam Wach[1], Klaudia Kaluzinska[1], Bradley Johnston[3,4], Malgorzata M Bala[1]

(1) Jagiellonian University Medical College, Krakow, Poland; (2) Agency for Health Technology Assessment and Tariff System, Poland; (3) Department of Nutrition, Texas A&M University, US; (4) Department of Health Research Methods, Evidence and Impact, McMaster University, Hamilton, Ontario, Canada

Corresponding author: mefiu11@onet.eu

Introduction: The quality of systematic reviews/meta-analyses (SR/MAs) in many fields of healthcare is unsatisfactory. We aimed to assess and compare the quality of SR/MAs on nutritional interventions in cancer prevention using AMSTAR-2 and ROBIS.

Methods: We searched MEDLINE, EMBASE, and the Cochrane Library for SR/MAs published between January 2010 and August 2018, that investigated the effects of any nutritional intervention for cancer prevention. Screening, data extraction, and quality assessments were performed by two independent reviewers with conflicts resolved by discussion or consultation with another reviewer. AMSTAR-2 and ROBIS comprise 16 and 21 questions, respectively. PROSPERO registration number: CRD42019121116.

Results: Out of 737 included articles, we selected a random sample of 101 for detailed analyses. Overall, the quality of SR/MAs was low on AMSTAR-2 and ROBIS. We made 11 comparisons between AMSTAR-2 and ROBIS items assessing similar constructs. Some items measuring separate constructs could not be compared (i.e. explanation for selection of study design in AMSTAR-2; appropriateness of eligibility criteria in ROBIS), and in some cases multiple questions were combined for comparison (i.e. comprehensiveness of searches and validity of statistical methods used). In 9 comparisons the assessments were comparable, ranging from 78.2%-99.0% agreement. For 2 comparisons: comprehensive literature search and publication bias, the assessments were poorly comparable (59.4%).

Conclusions: Both instruments mostly address similar aspects of SR/MA quality and our assessments were similar. However, AMSTAR-2 uniquely addresses reporting of excluded studies, sources of funding, conflict of interest within individual studies, and reasons for selection of study designs for inclusion, while ROBIS uniquely addresses adherence to predefined analyses, appropriateness and restrictions within eligibility criteria. Potential users should be aware of the considerably large overlap and the small but unique differences.

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#17 Educational interventions to improve literature searching skills: A scoping review of intervention studies

Julian Hirt[1,2]*, Thomas Nordhausen[2], Jasmin Meichlinger[1], Volker Braun[3], Adelheid Zeller[1], Gabriele Meyer[2]

(1) Institute of Applied Nursing Science, Department of Health, FHS St.Gallen, University of Applied Sciences, St.Gallen, Switzerland; (2) International Graduate Academy, Institute for Health and Nursing Science, Medical Faculty, Martin Luther University Halle-Wittenberg, Halle (Saale), Germany; (3) University of Heidelberg, Medical Faculty, Library of the University Hospital Mannheim, Germany

*Corresponding author: julian.hirt@ost.ch

Introduction: Appropriate search strategies are fundamental to literature reviews to retrieve relevant literature for answering clinical questions. Important shortcomings of literature searches in published systematic reviews are well described. Therefore, adequate education of reviewers seems indispensable. We aimed to review educational interventions for improving literature searching skills in health sciences.

Methods: We performed a scoping review of experimental and quasi-experimental studies published in English and German irrespective of publication year. Targeted outcomes were objectively measurable literature searching skills (e.g., quality of search strategy, study retrieval, precision). The search methods consisted of database searching (CINAHL, Embase, MEDLINE, PsycINFO, Web of Science), citation tracking, free web searching, and contacting experts. Two reviewers performed screening and data extraction. TIDieR was applied to evaluate the completeness of the reporting on the interventions.

Results: From 8,484 references screened, we included six controlled trials and eight pre-post trials. Study participants were students in various health professions and physicians. Educational formats of the interventions and results regarding the effectiveness of the interventions vary. Outcomes clustered into two categories: (i) developing search strategies (e.g., identifying search concepts, selecting databases, applying Boolean operators) and (ii) specific database searching skills (e.g., searching PubMed, MEDLINE, or CINAHL). In addition to baseline and post-intervention measurement, four studies reported follow-up. In almost all studies the intervention procedure and delivery were adequately described but no access to the educational material was provided. The expertise of the intervention facilitators was described in only three studies.

Conclusions: The results showed a wide range of study populations, interventions, and outcomes. Studies often lacked information about educational material and facilitators. Further research should focus on intervention effectiveness using controlled study designs and long-term follow-up. To ensure transparency, replication, and comparability, studies should rigorously describe their intervention details.

#27 #ReSNetSLT: Using a conceptual value creation framework to evaluate the impact of an online initiative for promoting evidence-based research in allied health

Hazel Roddam[1,2]*, Sophie Chalmers[1,3,4], Milly Heelan[1,5,6], Elicia Jones[1,7]

(1) Research Support Network (ReSNetSLT); (2) Hochschule fur Gesundheit Bochum, Germany; (3) Royal Bolton Hospital NHS Foundation Trust, Speech and Language Therapy Department; (4) The Walton Centre, Liverpool, Speech and Language Therapy Department; (5) University of Southampton, Clinical Doctoral Research Fellow; (6) University Hospital Trust Southampton, Speech and Language Therapy Department; (7) Barts Health NHS Trust, Speech and Language Therapy Department

*Corresponding author: hazeroddam@gmail.com

Introduction: A Community of Practice is defined as a group who share a strong identity and commitment to a common purpose. It fosters sharing of ideas, advice and peer-support for learning towards specified goals. Group members collectively generate informed opinion and a body of expertise, to motivate and encourage others: although it's essential this is led by experienced and credible voices.

Research Support Network (ReSNetSLT) is now 5 years old. Using a combination of social media platforms, it has established a strong international presence as a thriving Community of Practice for supporting Allied Health clinicians to engage with the research evidence base in their own field. ReSNetSLT aims to promote increased implementation of research evidence, and to foster active dialogue between researchers, educators, strategic managers and clinicians at all stages of their careers, to identify gaps in the evidence base and related research priorities.

Methods: The monthly one-hour #ReSNetSLT Twitter chats focus on open access research papers and are led by our hosts, including the paper authors. In advance of the tweetchat, we post a synopsis of the paper on our public blogsite www.resnetslt.com including comments on study design and key findings. Pre-set questions provide a light-touch guided appraisal of the research and elicit participants' experiences from their respective practice settings. We applied Wenger's (2011) values framework to evaluate the indicators of value as being 'immediate', 'potential', 'applied', 'realised' and/or 'reframed'.

Results: Within this conceptual value creation framework, we demonstrated how ReSNetSLT's public access activities and resources have established and sustained an effective Community of Practice. We will present selected illustrative examples of ReSNetSLT's reach and impact in achieving the stated aims of this learning network.

Conclusions: This model of active collaboration in setting an evidence-based research agenda can help to address the priority challenges in real-world service delivery.

#21 Developing questions for rapid reviews based on the routine use of medical data to identify adverse drug reactions (ADRs)

Cristhian Morales-Plaza[1,2,3]*, Katya Chavez-Barboza[1,4], Sebastian Diaz-Ramirez[1,5,6], Claudia Hernandez-Blanco[7]

(1) EBM Developing Countries Foundation, Valle del Cauca-Colombia; (2) Grupo de Investigación en Farmacoepidemiología y Farmacovigilancia, Universidad Tecnológica de Pereira-Colombia; (3) Emergency Department, Comfandi IPS and Clinics-Colombia; (4) Hospital Nacional Arzobispo Loaiza, Lima-Perú; (5) Department of Internal Medicine, Universidad del Valle-Colombia; (6) Department of Hepatology, Fundación Valle del Lili-Colombia; (7) Specialized Clinical Laboratory, Comfandi IPS and Clinics-Colombia

*Corresponding author: cridamo@ebmdevelopingcountries.org

Introduction: Rapid reviews are an essential tool to strengthen policies and health systems and generate timely evidence. The objective of this project is to create relevant questions to perform rapid reviews based on the routine use of medical data to determine adverse drug reactions (ADRs) among the population affiliated with the Colombian health system.

Methods: We revised ADRs and ADRs suspicion databases from drugs and supplies dispensed by Comfandi IPS, the major health service provider (IPS) at the Valle del Cauca State (Colombia), which attends to ≅ 500,000 patients of the Colombian Social Security System from 2017 to 2019. Comfandi owns 18 health care centres and provides inpatient and outpatient care. Variables included ADR report, drug, Anatomical Therapeutic Classification (ATC), ADR severity, and ADR type according to the World Health Organization's definitions. We identified gaps in research and clinical practice to establish questions for performing rapid reviews and to solve the local needs of clinicians and policymakers.

Results: We retrieved 758 reports for 84 different drugs and supplies. The ATC groups with the most reports were anti-infectives (30.3%), cardiovascular system drugs (21%), and nervous system agents (12.2%). The drugs with the highest number of reports were enalapril (5%), clarithromycin (3%), trimethoprim/sulfamethoxazole (2.2%), warfarin (2.2%), and ferrous sulfate (2.1%). According to the WHO's adverse reaction terminology, the most frequent disorders were skin disorders (38%), general disorders (15%), and gastrointestinal system disorders (10.3%). Of these ADRs, 45% were 'mild'. We generated ten questions to perform rapid reviews in topics of neglected tropical diseases (3), hepatology (3), bacterial infections (2), gastroenterology (1), and neurology (1).

Conclusions: Routine use of medical data may identify ADRs and generate targeted research questions for rapid reviews that respond to local needs within clinical practice.

#18 Ethics of clinical trials during the SARS-CoV-2 pandemic - preliminary findings of trial informativeness

Katarzyna Klas[1], Nora Hutchinson[2], Benjamin Gregory Carlisle[3], Jonathan Kimmelman[2], Marcin Waligora[1]

(1) Dept. of Philosophy and Bioethics, REMEDY, Research Ethics in Medicine Study Group, Jagiellonian University Medical College, Krakow, Poland; (2) Studies of Translation, Ethics and Medicine (STREAM). Biomedical Ethics Unit, McGill University, Montreal, Canada; (3) Charité – Universitätsmedizin Berlin, Germany. Berliner Institut für Gesundheitsforschung (BIG) / Berlin Institute of Health (BIH). QUEST – Quality | Ethics | Open Science | Translation.

*Corresponding author: katarzyna.anna.klas@student.uj.edu.pl

Introduction: The unprecedented scale of the SARS-CoV-2 pandemic and the urgent need to identify effective curative and preventive therapies has led to methodological and organizational innovations in clinical trial design. Deviations from traditional research procedures, paired with an explosion of clinical trials, has led to growing doubts about trial quality, social value and feasibility.

Methods: In our study we plan to assess SARS-CoV-2 clinical trials' informativeness, focusing on a cohort of interventional coronavirus treatment trials registered on ClinicalTrials.gov and launched between January 1 2020 and June 30 2020. We will perform a descriptive analysis of trial informativeness by providing measures of trial importance, design quality and feasibility. We will evaluate the evolution of trial informativeness over time, and hypothesize that, as pandemic research continues, trial informativeness will improve.

Results: During a preliminary search we identified over 1500 interventional SARS-CoV-2 clinical trials registered on ClinicalTrials.gov. After screening for trial eligibility based on our prespecified inclusion and exclusion criteria, we plan to include all Phase 1, 2 and 3 coronavirus interventional treatment trials launched within our chosen date range. Preliminary results of trial informativeness will be presented in November 2020.

Conclusions: To be determined by November 2020.

#7 Prevention, management, and control of leptospirosis in India: An evidence gap map

Deepti Beri[1], Sandeep Moola[1], Abdul Salam[1,2], Jagnoor Jagnoor[1,2], Manju Rahi[3], Soumyadeep Bhaumik[1,2]*

(1) The George Institute for Global Health, New Delhi, India; (2) Faculty of Medicine, University of New South Wales, The George Institute for Global Health-Sydney, Australia; (3) Epidemiology and Communicable Disease Division, Indian Council of Medical Research, New Delhi, India

*Corresponding author: sbhaumik@georgeinstitute.org.in

Background: Leptospirosis outbreaks in India has been increasingly common in recent years. Recognising this as a public health problem, Indian Council of Medical Research (ICMR) Expert Committee on Leptospirosis identified need for evaluating existing research for prioritising research funding. We developed an evidence gap map (EGM), a new kind of evidence synthesis approach, to inform the process.

Methods: We searched seven electronic databases for studies on leptospirosis in India and hand-searched other relevant websites. We consulted stakeholders from ICMR and other government agencies for feedback on framework to map evidence. We used excel sheets and placed bubbles in relevant cells to depict existing evidence while empty cells demonstrated evidence gaps.

Results: We retrieved 3453 records and included 28 studies. Almost all studies focused on humans (n=24) with fewer studies on animals (n=4). Majority of evidence is concentrated in three Indian states with limited or no studies available from other high endemic regions. We found a mix of study designs with cross-sectional surveys being most common (n=8) followed by non-randomised trials (n=4). Majority of the studies included hospitalised patients, general population and farmers with only one study on high-risk groups like animal caretakers, tribal population, dairy/sanitation workers. Most studies evaluated treatment interventions like medication with almost no studies on preventive interventions like awareness and vaccination. Readiness/responsiveness was the only outcome studied for these interventions.

Conclusions: The gaps identified by our EGM calls for an urgent need for funding research on animals by implementing 'OneHealth' approach. There is a need to conduct more studies in high endemic states and studying high-risk groups using more robust study designs like randomised controlled trials to evaluate most effective prevention and control interventions to reduce the disease burden. Embedding the use of EGMs to quickly evaluate evidence base to inform national level research priorities is warranted.

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