

RECRUS

Research Newsletter

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HSAAS
HOSPITAL SULTAN ABDUL AZIZ SHAH
هُوسُطَيْبِيْنَ سُلْطَانِ عَبْدِ الْعَزِيْزِيْ شَاهٍ

High-Quality Research, True Academics, Real Experts

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Breaking News

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Clinical Epidemiology

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Announcements

REGISTER NOW!

- Metascience 2023 Conference.
- 9th Asia Pacific Primary Care Research Conference. 2 – 4th June 2023
- Good Research Management Practice. 8 – 9th June 2023
- Sampling in Clinical Research: Design and Strategies. 8 – 9th June 2023
- MJH Series 18. 23rd June 2023
- 23rd FERCAP INTERNATIONAL CONFERENCE. A hybrid conference with face to face and online participation. November 26-29, 2023, Kuala Lumpur, Malaysia
- The 8th World Conference on Research Integrity in Athens, Greece. 2 to 4 June 2024.

FROM THE EDITOR'S DESK

The newsletter celebrates the launching of the Malaysia Open Science Platform (MOSP) in the recently concluded International Clinical Trials Day (ICTD 2023) in HSAAS. Do get to know the pillars and principles of open science movement, and participate in it to expand the impact of all scientific efforts broad and far. This includes involving the public and patients in the conduct of clinical research, collaborate to reproduce important research findings to the dissemination of research reports and data openly.

MJH Series 16 appraised a paper related to the practice of good research and research integrity among academic in the Netherlands. Besides, there are some important papers and recordings from the Virtual Symposia pre-Metascience 2023 Conference shared in this issue that narrate the history of and explain about the open science movement, discussing issues and strategies to move forward. In particular, do check out The Peer Community In (PCI) initiative and Neuromatch Open Publishing that begin a new journal publishing business model that intend to promote fair and high-quality journalism.

Digital technology is increasingly prevalent in our life. Artificial intelligence (AI) tools are proliferating throughout the whole process of research and review. The newsletter presents to you a synopsis of workshop on the Tools for Systematic Reviews, and the collection of AI tools to explore in different areas of life including academic research, teaching, and learning activities.

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SECTION A

BREAKING NEWS

LIVE •



Research Tools in the Age of

AI



The field of research has undergone a transformative revolution with the advent of Artificial Intelligence (AI) tools. Therefore, it is crucial to understand common AI tools that are available and learn how they can accelerate the pace of research, allowing scientists to explore vast realms of knowledge and discover novel connections. CRU has identified some of the essential AI tools that we think our readers should find useful. We will keep updating the lists as the tools emerged. Stay tuned!

Read more [\[HERE\]](#) on CRU website

GOODBYE FRIEND!

DEAR SAM,

When we learn that you will be leaving us, our hearts are filled with a bittersweet blend of pride, appreciation, and a hint of grief. It's difficult to realize that the time has come for us to say goodbye, but we want you to know that we couldn't be prouder of everything you've accomplished as our colleague. You have been a good friend, an of course, an outstanding team member.

You demonstrated amazing talent and drive from the minute you joined our team. Your enthusiasm for your job has inspired us to strive for greatness. Your passion and willingness to go the extra mile have constantly amazed the entire team.

Beyond your professional abilities, we definitely won't forget your humility, kindness, and genuine concern for others. Your desire to provide a helping hand, provide guidance, and assist your colleagues has not only been useful, but it has also built a sense of unity throughout our team.

We have watched your growth and development personally throughout our journey together. You have faced and overcome problems with grace and resilience. Your ability to adapt, learn, and continuously improve demonstrates your steadfast dedication to personal and professional development.

While it is difficult for us to envisage our team without you, we are optimistic that the next chapter of your career will be filled with success and fulfilment. Remember to stay true to yourself, embrace new chances with an open mind, and never give up on your dreams.

Please know that you will be sorely missed when we say our goodbyes. The memories we've made, the obstacles we've overcome, and the wins we've enjoyed together will always have a special place in our heart.

Thank you for your constant dedication, support, and friendship. Working with you has been a true honor and privilege. We wish you the best in this new chapter of your life, both emotionally and professionally.

Sincere appreciation,

CLINICAL RESEARCH UNIT, HSAAS
AP. DR. CHEW BH, DR. AAZIFAH, SALWANA,
FAIZAH, IMAN, SYUHADA, WZN, INTAN



Will miss you

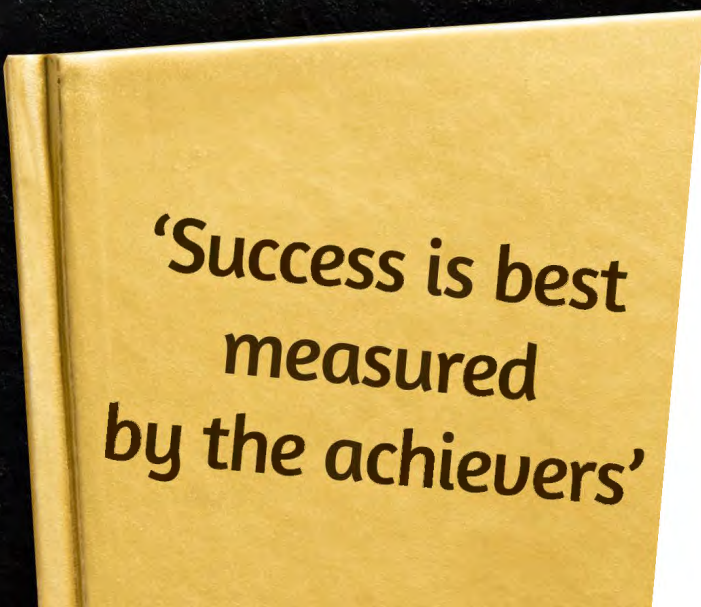




SECTION B

RESEARCH ACHIEVEMENTS AND IMPACTS

This section highlight the researchers' great achievements in the fields including the grants granted, sharing of successfull pathway and other outstanding achievements that becomes a precious journey forfor other researchers to learn and follow.



**'Success is best
measured
by the achievers'**

Expert Sharing by Featured Researcher – *Summary Keypoints*



BY: SALWANA AHMAD CHEW BOON HOW

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Google Scholar ID: Yoke Mun Chan

Scopus ID: 7403676090

Professor and Clinical Dietitian

Department of Dietetics

Faculty of Medicine and Health Sciences, UPM

Head

Research Centre of Excellence, Nutrition and Non-Communicable Disease (RCoE-NNCD), UPM

PROJECTS LED, PUBLICATIONS, AND CONTRIBUTIONS:

- ✓ Led 19 research projects.
- ✓ Published more than 100 publications including journal articles, modules, guidelines, and books.
- ✓ Key opinion leader and member of expert panels in various national and international committees.

RESEARCH INTEREST AND EXCELLENCE:

- ✓ Chronic disease in the elderly, nutrition epidemiology, renal nutrition, and bone nutrition.



Prof. Dr. Chan Yoke Mun

Researcher As A Career?

Why Becoming a Researcher?

- ✓ It is a rewarding career that is becoming a "key profession" in the knowledge society.
- ✓ Open up to new ideas, explore the world, venture into leading-edge technology, and meet like-minded individuals.
 - ❖ Freedom of time to choose when and how to work.
 - ❖ Do what you love the most by pursuing your own passions.
 - ❖ Being autonomous to act by own values and interests.

Why Choose Research?

- ✓ The foundation for successful practice in any profession, but especially crucial in the healthcare field.
- ✓ Strengthen and sustain the profession's knowledge base:
 - ❖ Serves as the foundation for education.
 - ❖ Drives core knowledge and competencies.
 - ❖ Advanced and Latest update of knowledge.
- ✓ Foundation for decisions and recommendations in practice, education, and public policy.

Deteriorating Work Environment

- ✓ Strained by competition for funding opportunities
- ✓ Takes away time of duties not related to research / mentoring
- ✓ Need to manage many tasks
- ✓ Unsustainable work
- ✓ Potentially on tasks that may not be impactful
- ✓ Often prioritizes productivity over well-being

Challenges of Being a Researcher:

It can derive from Institutional Demands (Funding/grants, publications) or personal urges

- ✓ Lack of mentorship.
- ✓ Limited funding.
- ✓ Imposter Syndrome.
- ✓ Work overload.
- ✓ Too much stress and limited time.
- ✓ Inability to focus on work-life balance.
- ✓ Hard to put good team and great students.
- ✓ Expect the unexpected.
- ✓ Research dissemination was less appreciated.





PERSONAL EXPERIENCE ON RESEARCH WHEN COVID19 HIT THE COUNTRY

Social distancing and virus transmission issue interfere with 2 research projects..



SUSPENDED



Consequences:

- Reduction in recruitment of research subjects
- Delay in data entry
- Overall delay in study completion
- Students' mindset changed in term of decreased academic motivation and quality!
- Increased mental health issue – anxiety



FYP PROJECTS IN DIALYSIS CETRES

DELAYED

OVERCOMING CHALLENGES

1. Improve Work Environment at Individual Level: Simple Steps



Commit to strategies to increase efficiency and productivity.



Have a long-term strategy to help with prioritization, and review it regularly



Maintain a healthy social networks (family, friends, colleagues, supervisors)



Make time for volunteer work or similar commitments that are important and meaningful to you



Set boundaries to establish your workplace and time

Practice saying "no" Consider that taking additional, low-impact jobs may deplete your no work time and may divert your concentration away from other key work appointments. Try to eliminate things that sap your energy, such as non-essential meetings that do not add value to your life or profession, and be efficient with your time by setting goals.

Focus on different activities differs from hobbies - additional engagements outside of day-to-day jobs that are both important and rewarding - finding time can be tough so take a break and revisit extra commitments at a later time.

2. Mentorship



- ✓ Having mentors such as PhD Supervisors and senior colleagues.
- ✓ Build networking and try to build reputation.
- ✓ Need to have personal attitude (Maintain curious enthusiasm that can promote 'Culture of Research')
- ✓ Having good group of students (PhD, Masters, FYPs).
- ✓ Having fully support from family all the time.

Early-career researchers / Post PhD: get advice to former supervisors.

Middle-career researchers / Senior researchers: Young colleagues, more tech savvy!

3. Research & Funding

Research is expensive for..

Maintaining **instrumentation** that support methodology of research.

IDEAS that generated

Right people for the right projects to match their skills and experience, subject-matter expertise and networking!

RESEARCH AND NETWORKING



Collaboration

- ❖ Process of group work, also a learned skill.
- ❖ Share ideas through which you gain knowledge & expand territories
- ❖ Similar field, different fields.
 - ✓ Dietitian
 - ✓ Nutritionist
 - ✓ Epidemiologist
 - ✓ Statistician
 - ✓ Gerontologist
 - ✓ Medical Physiologist



Benefits of Networking

TROBE

- ❑ Transfer of technology
- ❑ Receives > citations due to the diverse range of authors
- ❑ Opportunity to collaborate on projects
- ❑ Bigger chance for research funding (multi-disciplinary, trans-institution collaboration)
- ❑ Enables shared learning

- ✓ Relationship or connection that exists between individuals within and or outside an organization, community and country with the aim of achieving a certain goal.
- ✓ Crucial academic research skill for career advancement
- ✓ Can be challenging, particularly for early career researchers and introverted individual.

BUILD NETWORKING



1

Attend Conference & workshop

- **Activity performed:** Find and meet similar researchers with same research interest / topics.
- **Opportunities & ideas to improve:** Present a wonderful opportunity to network with peers working in same or related fields.



2

Communicate and disseminate work

- **Activity performed:** Present quality work as much as you can.
- **Opportunities for getting funded:** Disseminate quality research work for future potential funders to fund the projects



3

Don't lose touch with your networking

- **Get to know the circle around you:** Follow latest update of the individuals or the other teams by their research and social media.
- **Don't miss the opportunity:** Place high attention to what the other teams are doing, so that you are in the same circle.



4

Strengthen the collaboration

- **Maintain networking and collaborations :** Students exchange, staff exchange & sabbatical attachment, postgraduates' supervision
- **Start co-writing:** Develop research proposal, grant application/Co-writing.
- **Actively involve:** Attend scientific seminar as speaker or join the invitations as participants.



5

Networking at Conference

- **Do homework:** Identify the group/core of people that you will be meeting during the conference.
- **Introduce yourself:** Introduce yourself to everyone in the group/core so that they know your specialty.
- **Opportunities & ideas to improve:** Get everyone in your circle by adding them in your important list for work networking. (e.g. exchanged business card, add contact info or connect through LinkedIn)

Read more tips!

PLOS COMPUTATIONAL BIOLOGY

HERE..

Ten simple rules to improve academic work-life balance

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¹ School of Business, Victoria University of Wellington, Wellington, New Zealand, ² Institute of Science and Technology Austria, Klosterneuburg, Austria, ³ Faculty of Psychology, Plymouth University, United States of America, ⁴ Institute for Computational Medicine and Department of Biomedical Engineering, Johns Hopkins University, Baltimore, Maryland, United States of America

* These authors contributed equally to this work.

Introduction

The ability to strike a perceived sense of balance between work and life represents a challenge for many in academic and research sectors around the world. Before major shifts in the nature of academic work occurred, academia was historically seen as a rewarding and comparatively low-stress working environment [1]. Academic roles tend to manage many tasks during a workweek. The current academic working environment often pressures productivity over well-being, with researchers working long days, on weekends, on and off campus, and largely alone, potentially on tasks that may not be impactful. Academic support has been for researchers due to increasing administrative burden and teaching loads [1–3]. This is further stressed by competition for job and funding opportunities [4], leading to many researchers spending significant time on applications, which takes away time from other duties such as performing research and mentorship [1,2]. The current hypercompetitive culture is particularly impactful on early career researchers (ECRs) employed on short-term contracts and is a major driver behind the unsustainable working hours reported in research labs around the world, increases in burnout, and decline in satisfaction with work-life balance [1–10]. ECRs may also find themselves constrained by the culture and management style of their laboratory and principal investigator (PI) [11–13]. Work-life balance can be defined as an individual's appraisal of how well they manage work and nonwork related obligations in ways that the individual is satisfied with both, while simultaneously maintaining their health and well-being [14]. Increasing hours at work can conflict with obligations outside of work, including but not limited to family

nature

DATE | LEFT COLUMN | RIGHT

CAREER COLUMN | 19 April 2019

Networking for introverted scientists

Networking is a crucial skill for all scientists. Ruth Goelman offers tips for those who struggle to make it work.

Ruth Goelman

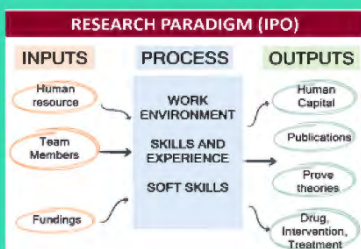
HERE..



RESEARCH PLAN - KNOW YOUR ADVANTAGES AND LIMITATION

RESEARCH PARADIGM

Maximize the "process" with availability of "inputs" to get excellence "outputs"



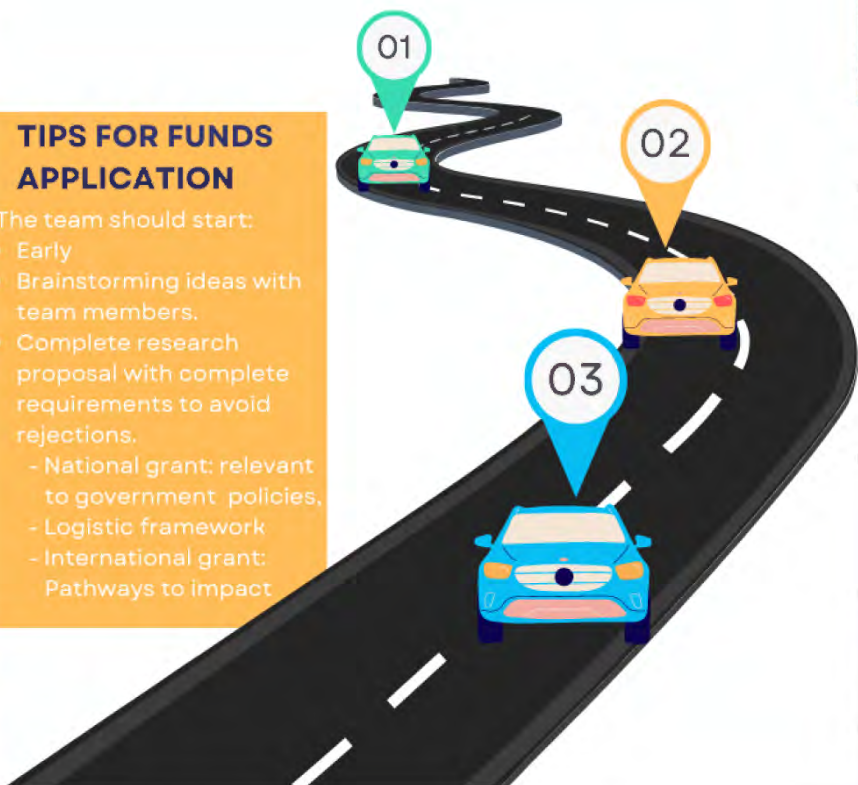
STRONG MOTIVATION TO MOVE FORWARD

Maintain positive attitude, (curiosity, determination, persistent), collaboration, good communication, and overcoming imposter syndrome.

TIPS FOR FUNDS APPLICATION

The team should start:

- Early
- Brainstorming ideas with team members.
- Complete research proposal with complete requirements to avoid rejections.
 - National grant: relevant to government policies,
 - Logistic framework
 - International grant: Pathways to impact



RESEARCH JOURNEY BECOMING TODAY'S SUCCESS

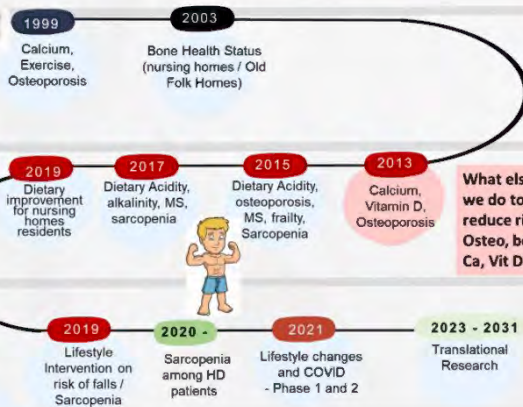
Training for Nursing Home Staffs: Nurses and Cooks



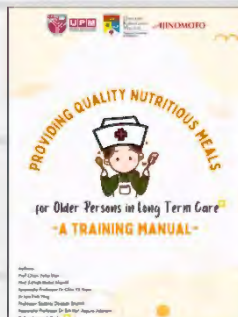
Health Promotion Program for PAWE Putrajaya



My research journey From Bones to Muscles



What else can we do to reduce risk of Osteo, besides Ca, Vit D???





***SECTION C:
CLINICAL
EPIDEMIOLOGY***

APPRAISALS IN META-JOURNAL HOUR 16

By Iman Hafizah, SQ Yew and BH Chew



The paper: Prevalence of Questionable Research Practices, Research Misconducted and their Potential Explanatory Factor: A Survey among Academic Researchers in The Netherlands [1].

Why was this study conducted?

Research that is trustworthy and of the highest quality is an essential component of sound public policy. Transparency is important to gain trust in research, on top of conducting relevant, reproducible, ethically sound as well as high methodological quality research. However, trust in research is often jeopardised by researchers committing in research misconduct such as falsification and fabrication of data (FFs) and violations of ethical and methodological norms. Therefore, continuous efforts to encourage responsible research practices (RRPs) that include open science practices such as open data sharing, registration of study protocols, open access publication over questionable research practices (QRPs) are needed. Some of the examples of QRPs are not submitting valid negative results for publication, not reporting flaws in study design and selective citation to enhance own findings. Thus, The National Survey on Research Integrity (NSRI) aims to estimate:

- i. disciplinary field-specific prevalence of QRPs, FF and RRPs
- ii. associations between explanatory factors and QRPs, FF and RRPs

How was it done?

Ethics approval

The NSRI is approved by The Ethics Review Board of the School of Social and Behavioural Sciences of Tilburg University. The full NSRI questionnaire, its raw anonymized dataset, the complete data analysis plan, its source codes and version controls of the analysis (displayed in Github) can be found on the Open Science Framework [2].

Study design

This cross-sectional survey was conducted using a web-based anonymised questionnaire whereby academic researchers working at/or affiliated to at least one of 15 universities or 7 medical centres were invited to participate.

Selection criteria

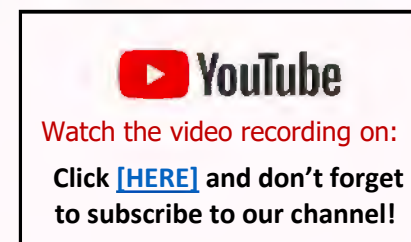
Researcher must had an average of at least 8 hours of research-related activity weekly

Working in life and medical sciences; or social and behavioural sciences; or natural and engineering sciences; or the arts and humanities

and

PhD candidate or junior researcher* or postdoctoral researcher or assistant professor; or associate or full professor

*individual with a Masters or PhD degree doing a minimum of 8 hours per week of research related tasks under close supervision



The survey was conducted by a trusted market research company, Kantar Public. Roles of the company includes:

- Send out survey invitations
- Email reminders to target groups
- Send anonymised dataset to research team at the end of data collection

Study activities

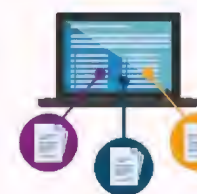


Universities and University Medical Centers supplied Kantar Public with the email addresses of their eligible researchers; or through publicly available resources for other institutions



First email invite was sent to:

- Obtain informed consent
- Inform NSRI's purpose and identity protection measures
- Link for the survey for those consented invitees



- The NSRI was open for 7 weeks whereby 3 reminder emails were sent to non-responders, at 1 to 2 weeks interval
- After data analysis plan had been finalized and preregistered on Open Science Framework, Kantar Public sent anonymized dataset containing individual responses

Survey instrument

Background questions

- Weekly average duration of research-related work
- One's dominant field of research
- Academic rank
- Gender
- Involvement in empirical research



Four components of questionnaire

- 11 Questionable Research Practices
- 11 Responsible Research Practices
- 2 Fabrication and Falsification
- 12 Explanatory Factor (75 questions)

Three-year timeframe was chosen to limit recall bias

All respondents received the same set of questions on QRPs, RRPPs and FFs

11 Questionable Research Practices (QRP)

- Adapted from a recent study from a recent study where 60% of the surveyed participants came from the biomedical disciplinary field, however, a series disciplinary field specific focus groups were conducted to ensure the 11 QRPs were applicable to multidisciplinary target group of participants in the study.
- All QRPs had 7-point Likert scales ranging from 1 to 7 where 1 = never and 7 = always (no intermediate linguistic labels were used) plus a "not applicable" (NA) answer option.



2 Fabrication and Falsification

- Used the randomized response (RR) technique with only a yes or no answer option to obtain more honest answers.

Randomized Response	
In the last three years, I fabricated data in my research.	
<p><i>Clarification: Fabrication is making up data or results and recording or reporting them as real.</i></p> <ol style="list-style-type: none"> 1. Click on the 'start' button 2. The circle and triangle will start alternate 3. Click on the 'stop' button when you are ready to answer 4. Choose the symbol that represents your answer 	
1	Circle
2	Triangle
Randomized Response	
In the last three years, I falsified data in my research.	
<p><i>Clarification: Falsification refers to manipulating research materials, equipment, or processes, or changing or omitting data or results such that the research is not accurately represented in the research record.</i></p> <ol style="list-style-type: none"> 1. Click on the 'start' button 2. The circle and triangle will start alternate 3. Click on the 'stop' button when you are ready to answer 4. Choose the symbol that represents your answer 	
1	Circle
2	Triangle

12 Explanatory Factor Scales (75 Questions)

- These scales were based on psychometrically tested scales most commonly used in the research integrity literature and focused on actionability.

	Scale	Scope
1.	Scientific norms*	Scientific ideals behavior of researchers may adhere or subscribe to
2.	Peer norms*	Perception of researchers' peers actual behavior towards research.
3.	Perceived work pressure	Burden on the current task/ job demand
4.	Publication pressure	Pressure to publish articles
5.	Pressure due to dependence on funding**	Related to securing grants, continuation of research, job security
6.	Survival mentoring (and survival)	Mentoring to survive in the field
7.	Responsible mentoring	Mentoring to ensure work are of higher quality, transparent and ethical
8.	Competitiveness of the research field*	Rivalry in own research field
9.	Distributional organizational justice*	Resource allocation, allocation of task, decisions on promotions and assessment by the management
10.	Procedural organizational justice*	Process of allocating task, resource, promotion and academic performance
11 & 12	Likelihood of QRP detection* by collaborators and reviewers	Collaborators: Defined as students, colleagues, or other academics with whom the researcher works together on one or more research projects. Reviewers: Defined as academic peers who in the context of publishing the work independently assess its quality.

*scales were piloted

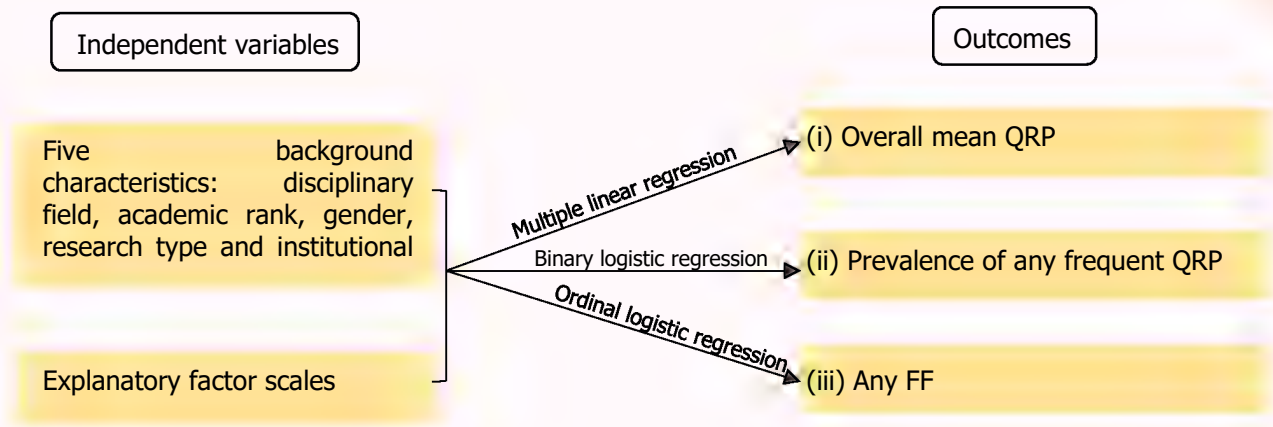
**not be piloted due to resource constraints but performed well in terms of psychometric properties (with a Cronbach's alpha of 0.76)

Refer to [S5 Table](#) for full list of the explanatory factor scales and their corresponding items

Missingness by Design

To optimize survey completion time, we employed a "missingness by design" approach. This involved assigning each survey participant to one of three randomly generated subsets, consisting of 50 explanatory factor items selected from a total pool of 75 (refer to [S5 Table](#)). The NSRI questionnaire's comprehensibility were pre-tested in cognitive interviews with 8 academics from different ranks and disciplines. Comments obtained from the interview includes improvement in layout such as the removal of an instruction video on the RR technique, clarity of the instructions and to focus on wording in the questionnaire by using different types of fonts. The full report of the cognitive interview can be accessed at the Open Science Framework [2].

Statistical analysis



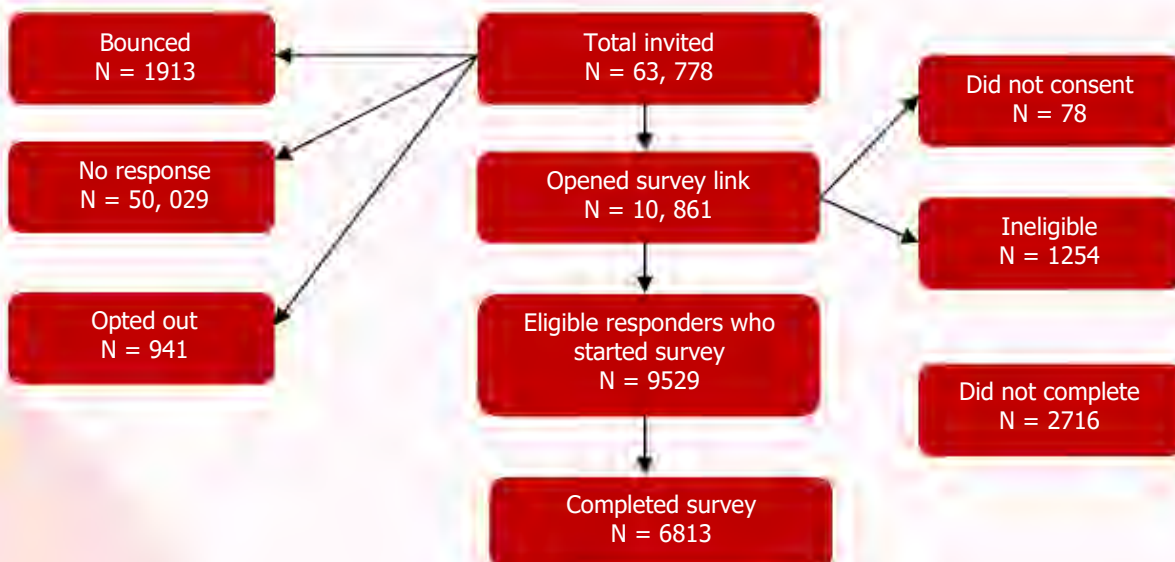
Analysis Strategies

- 1) **Scoring method:** Overall mean QRP score was averaged on the 11 QRPs, in which not applicable (NA) was recorded to 1. On the other hand, prevalence was calculated as the percentage of respondents who scored at least one QRP as 5, 6 or 7. At least one instance of falsification or fabrication was labelled as 'Any FF'.
- 2) **Multivariable analyses:** Multiple imputation with mice in R (version 4.0.3) was used to deal with the missingness by design generating fifty complete data sets. The regression models were fit to each of the 50 datasets, and the results combined into a single inference. All multivariable models contain the five background variables and the explanatory factor scale.

What was the findings?

Descriptive analysis

Out of 22 universities and University Medical Centers in the Netherlands, eight supported the NSRI. Figure below shows the flowchart of participation in the survey.



In terms of respondents' characteristics, majority of the participants are male (54.1%) with most of them being in the natural and engineering sciences fields (73.5%). Most female respondents' were in the social and behavioural sciences (51.5%). In terms of academic rank, female made up of less than 30% being the associate and full professors. Nearly 90% of the respondents in this survey engaged in empirical research. The characteristics of all respondents can be accessed from the supplementary [S1 table](#).

In addition, [Table 1](#) revealed that being postdocs and assistant professors reported highest scale scores for publication pressure (4.2), funding pressure (5.2) and competitiveness (3.7) as compared with other academic ranks. Researchers in the field of art humanities also showed the highest work pressure (4.8), publication pressure (4.1) and competitiveness (3.8) with the lowest score in mentoring for survival (3.6), peer norms (4.1) as well as organizational justice (3.9).

Prevalence of QRPs and research misconduct

[Table 2](#) shows the prevalence of QRPs and FFs. The five most prevalent QRPs (recorded the most Likert scale score of 5, 6 or 7) are:

- i. QRP 9: Not submitting or resubmit valid negative studies for publication (17.5%)
- ii. QRP 10: Insufficient inclusion of study flaws and limitations in publication (17.0%)
- iii. QRP 2: Insufficiently supervised or mentored junior co-workers (15.0%)
- iv. QRP 1: Insufficient attention to the equipment, skills or expertise (14.7%)
- v. QRP 7: Inadequate notes of research process (14.5%)

Less than 1% of the respondents reported that they had:

- i. QRP 6: Improper referencing of source (0.6%)
- ii. QRP 4: Unfairly reviewed manuscripts, grant applications or colleagues (0.8%)

In terms of academic rank, almost half of PhD candidates and junior researchers reported QRP 4: Unfairly reviewed manuscripts, grant applications or colleagues (48.75%). Across disciplines, those in life and medical sciences have the highest prevalence of any frequent QRP (55.3%) and highest prevalence estimate for any FF (10.4%) compared to the other disciplinary fields.

Regression analyses

[Table 3](#) reveals that across academic ranks, being a PhD candidate or a junior researcher is associated with a significantly higher odd of any frequent QRP (OR: 1.16). In terms of background, being non-male (female: -0.09; undisclosed: -0.18) and doing empirical research (OR: -0.15) were associated with lower overall QRP mean and any FF.

Logistic regression analysis indicates that as the publication pressure scale increases by one standard deviation, the odds of QRPs also increases by a factor of 1.22. On the other hand, the scales for scientific norms subscription, peer norms, and organizational justice have the opposite effect on these three explanatory factors. In other words, for each standard deviation increase on the scientific norms scale, the odds of frequent QRPs decrease by a factor of 0.88. Similarly, the odds decrease by factors of 0.91 for peer norms and 0.91 for organizational justice.

Ordinal regression analysis reveals that for each standard deviation increase on the scientific norms subscription scale or the perceived likelihood of detection by reviewers scale, the odds of any FF decrease by factors of 0.79 and 0.62, respectively ([Table 4](#)).

How much can we learn from this paper?

The NSRI was one of the largest surveys on research integrity conducted among academic researchers. This survey has not only investigated the prevalence of QRPs and FF but also a broad range of other potential explanatory factor. This comprehensive investigation encompasses all disciplinary fields and academic ranks, making it the most extensive study of its kind to date. In this survey, it was found that approximately half of the researchers engaged in at least one QRP over the last three years while one out of twelve participants admitted to falsifying or fabricated their research at least once. Generally, PhD candidates and junior researchers are more likely to engage in QRPs as compared to other academic ranks while postdocs and assistant professors expressed higher levels of publication pressure, funding pressure and competitiveness.

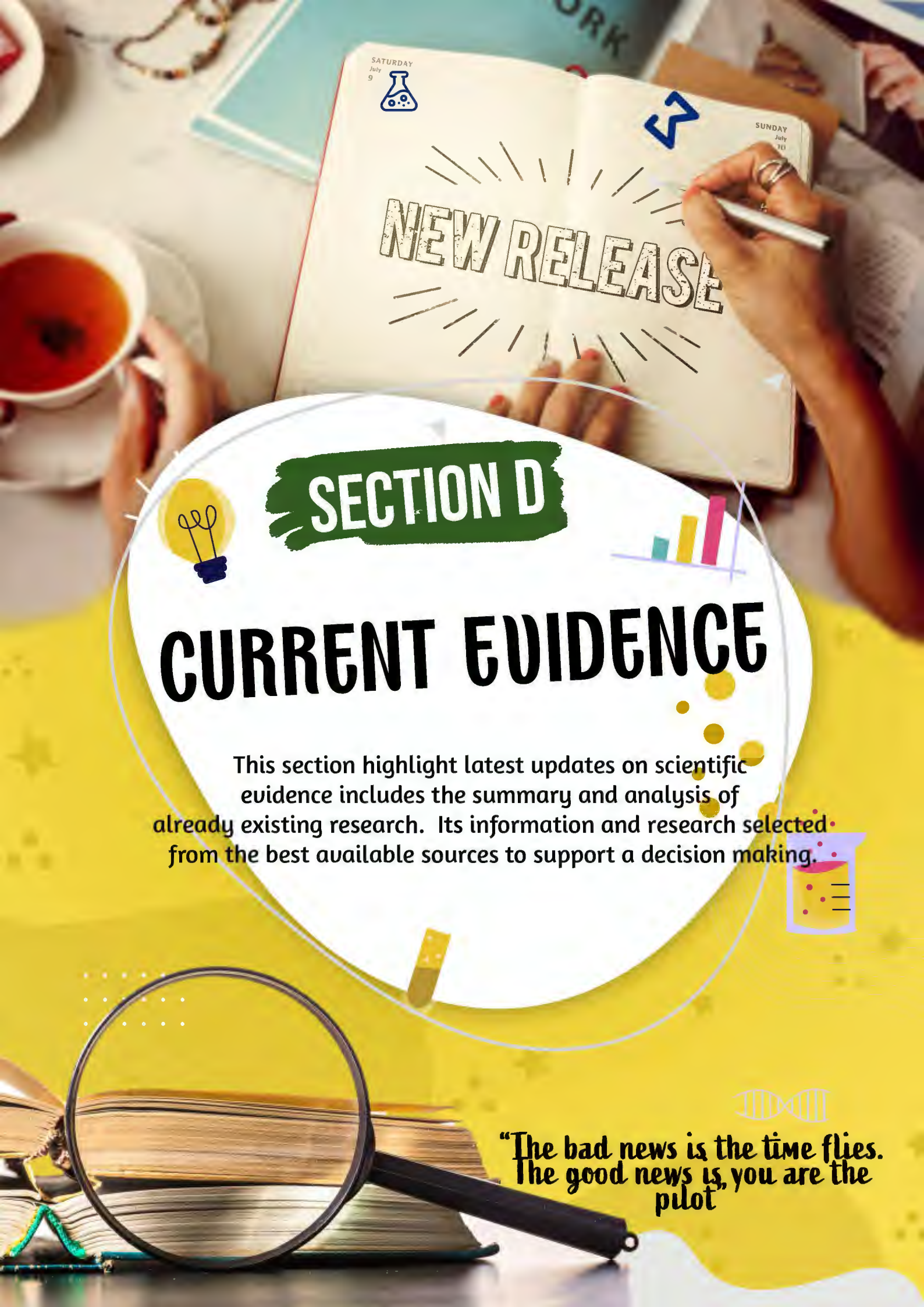
This survey was planned and conducted carefully with consideration of protecting respondents' identity to yield honest response. As such, the online survey was conducted by a third-party company with only anonymised data set sent to the research team upon completion of data collection. In addition, [randomised response technique](#) was also used to collect sensitive information while ensuring privacy and anonymity. By introducing this randomization element,

respondents' true responses are concealed among other random responses. This helps to protect their privacy and provides a level of plausible deniability, making it difficult to attribute a specific response to a particular individual. The collected data can then be analyzed using statistical techniques that account for the randomization process, allowing researchers to estimate the prevalence or distribution of sensitive behaviours or beliefs within a population without directly identifying individuals or compromising their privacy [3]. Data of the study also made available in support to the [Open Science](#) initiatives.

However, there are several limitations that can be addressed for improvements to plan or a similar larger study in another population. It is noted that the authors have conducted a series of disciplinary-field-specific focus group discussions (FGDs) to ensure the 11 QRPs questions were applicable to the multidisciplinary target group. However, the authors did not include or share whether there are any revision or modification to the 11 QRPs questions. Besides that, the authors should consider to elaborate more on the strategy of "missingness by design" especially on how 50 questions were randomly selected or whether a computed randomised system were used. In terms of analysis plan, recoding "not applicable" answers into "never" for the multiple linear regressions did not differentiate between not committing a behaviour because it is truly not applicable or intentionally refraining from doing so. Additionally, scale scores of 5, 6 or 7 indicated "any frequent QRP" could overestimate the prevalence of any frequent QRPs in the survey. Another potential limitation is misclassification of academic rank due to no years of experience collected, but only academic positions. Last but not least, the response rate is only 21.1% despite being a large study which may make one wonder whether the finding is representative of all academic researchers in Netherlands.

Reference

1. Gopalakrishna G, ter Riet G, Vink G, Stoop I, Wicherts JM, Bouter LM (2022). Prevalence of questionable research practices, research misconduct and their potential explanatory factors: A survey among academic researchers in The Netherlands. *PLoS ONE* 17(2): e0263023.
2. National Survey on Research Integrity on Open Science Framework [Internet] [cited 2021 July 20] Available from: <https://osf.io/ehx7q/>
3. Lensvelt-Mulders GJ, Hox JJ, Van der Heijden PGM, Maas CJ. Meta-analysis of randomized response research: thirty five years of validation. *Sociol Methods Res.* 2005; 33(3):319–48.



SATURDAY
July
9



SUNDAY
July
10

NEW RELEASE

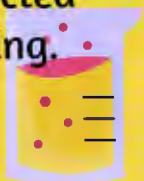


SECTION D



CURRENT EVIDENCE

This section highlight latest updates on scientific evidence includes the summary and analysis of already existing research. Its information and research selected from the best available sources to support a decision making.



*"The bad news is the time flies.
The good news is, you are the
pilot"*



FRAMEWORK ON TRADITIONAL AND COMPLEMENTARY (T&CM) MEDICINE RESEARCH IN MALAYSIA

The main objective of this framework is to guide researchers in conducting T&CM research and encourage innovation in T&CM research in Malaysia



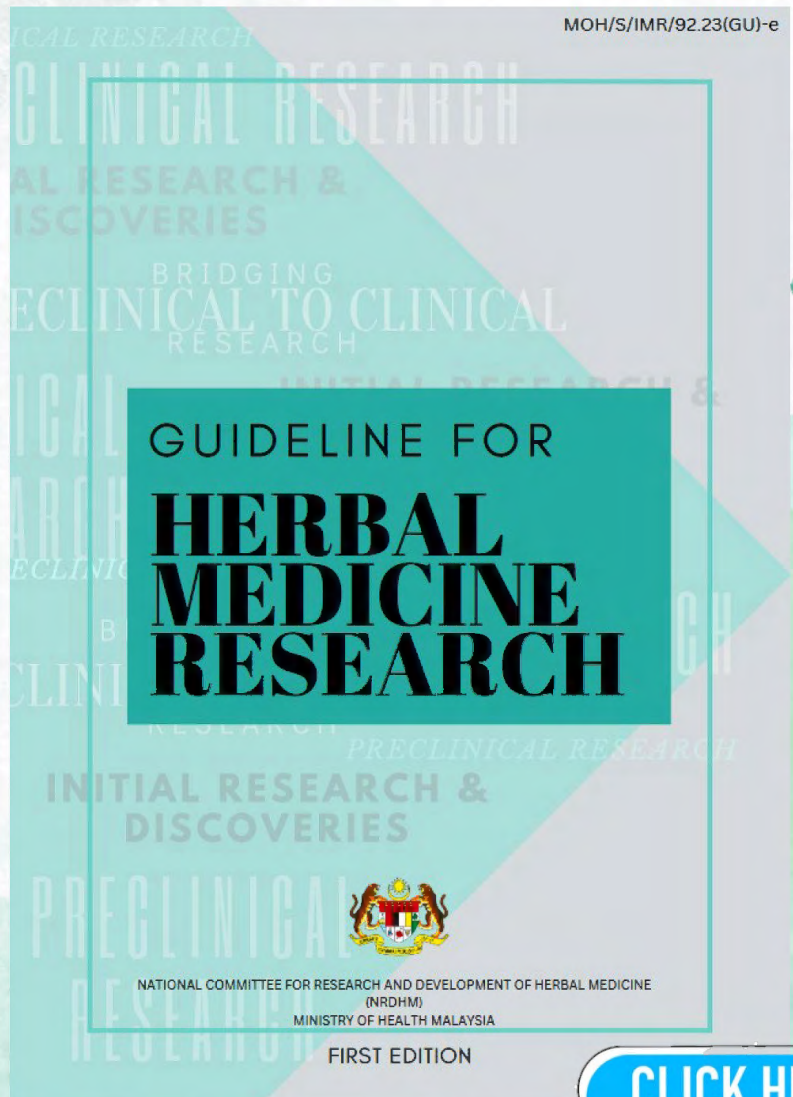
GUIDELINE FOR HERBAL MEDICINE RESEARCH

The main objective of this guideline is to provide a concise yet informative description on the prerequisites and processes involved in planning and conducting herbal medicine related research in Malaysia

Initial herbal medicine discovery

Preclinical research stage

Clinical stage of drug development pathway



[CLICK HERE](#)

CURRENT EVIDENCE

KEYPOINTS :

OPEN SCIENCE, OPEN DOORS: A GUIDE TO HOW YOUR RESEARCH CAN ACHIEVE BETTER VISIBILITY AND IMPACT



ASSOC. PROF. DR. SUBAPRIYA SUPPIAH

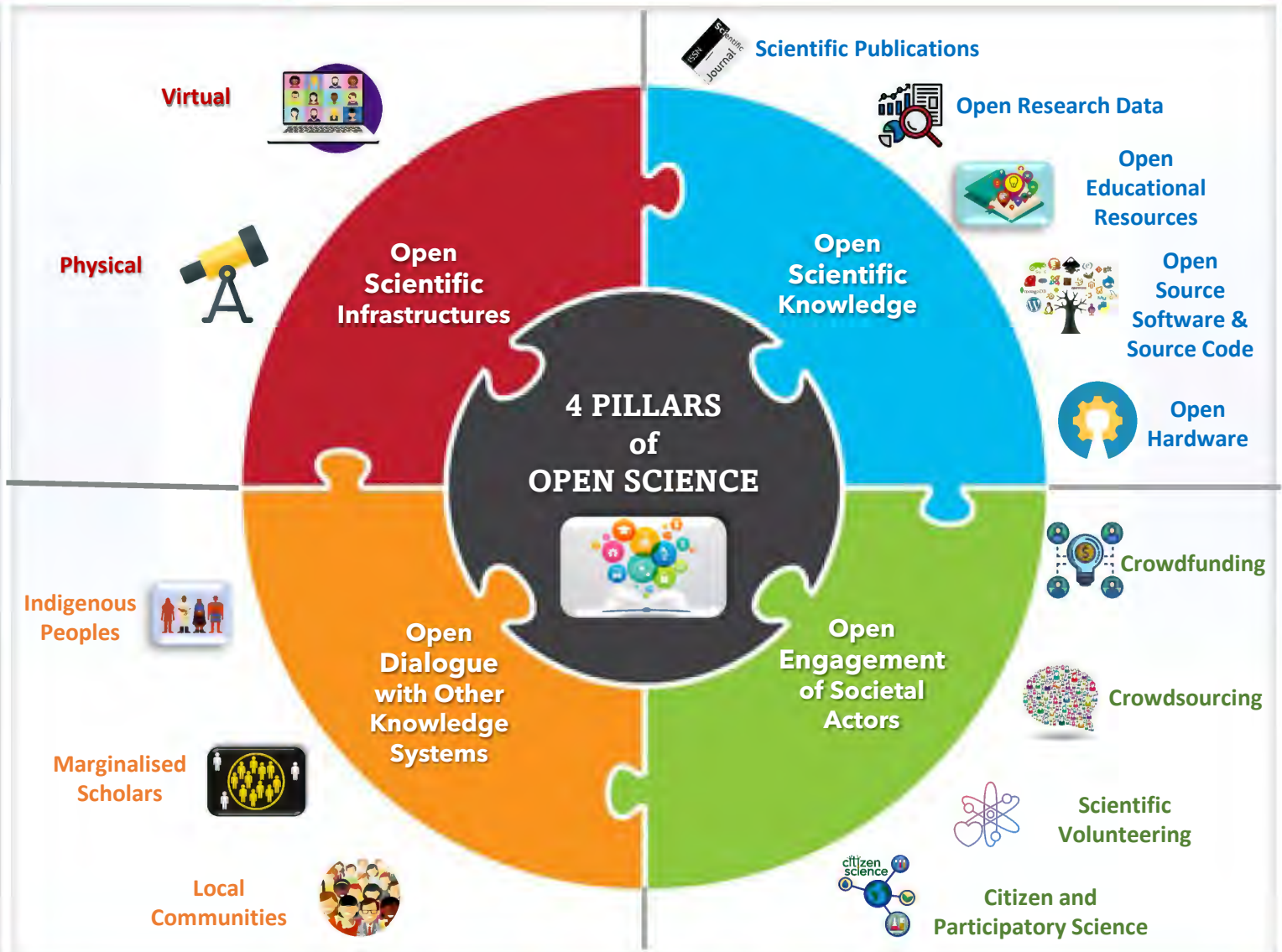
Head of Nuclear Imaging Unit,
Hospital Sultan Abdul Aziz Shah
Universiti Putra Malaysia



Article by: Nurfaizah Saibul

What is Open Science?

The movement that makes research work and the dissemination of research accessible to all levels of society, including researchers and the amateur public, by sharing information and resources through collaborative networks.



CURRENT EVIDENCE

KEYPOINTS :

OPEN SCIENCE, OPEN DOORS: A GUIDE TO HOW YOUR RESEARCH CAN ACHIEVE BETTER VISIBILITY AND IMPACT

PILLAR 1: OPEN SCIENCE KNOWLEDGE



Gold open access



Green open access



Pre-prints

PUBLICATIONS



OPEN ACCESS

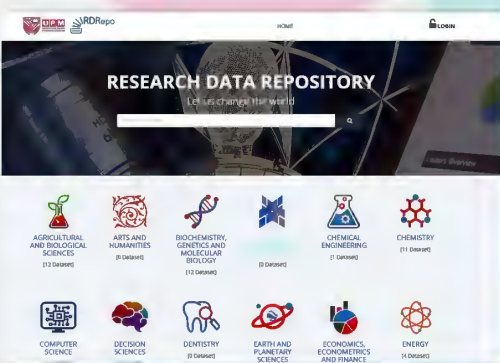
OPEN RESEARCH DATA

OPEN EDUCATIONAL RESOURCES

OPEN HARDWARE

OPEN SOURCE SOFTWARE AND CODE

RESOURCES



DATABASE



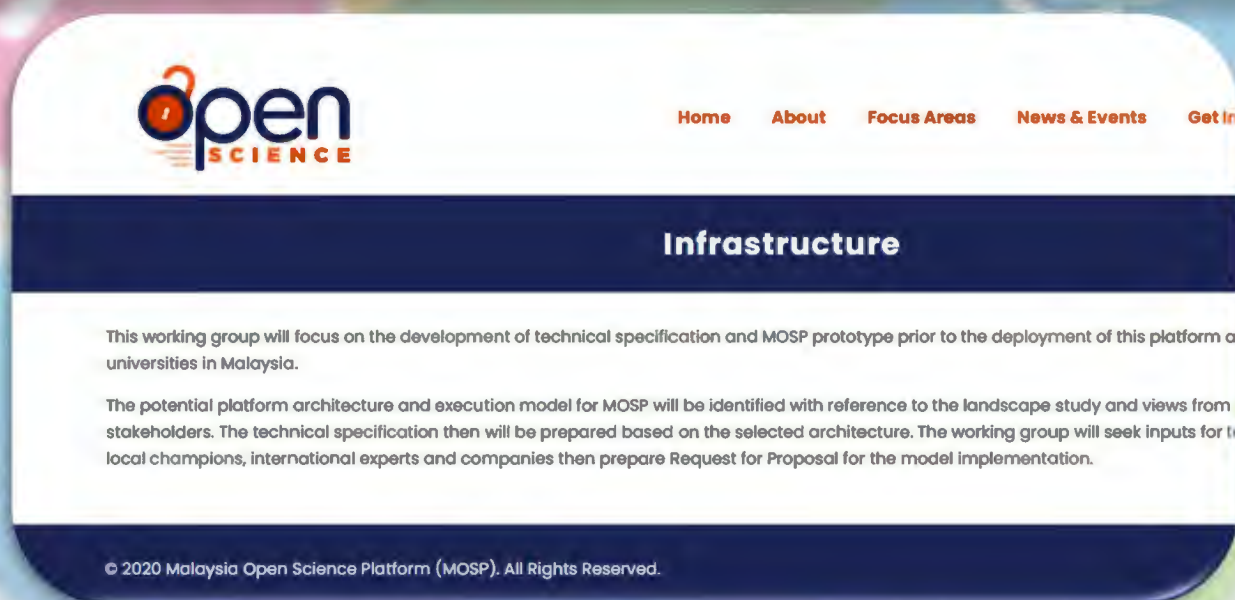
CURRENT EVIDENCE

KEYPOINTS :

OPEN SCIENCE, OPEN DOORS: A GUIDE TO HOW YOUR RESEARCH CAN ACHIEVE BETTER VISIBILITY AND IMPACT

PILLAR 2:

OPEN SCIENCE INFRASTRUCTURE



PILLAR 3:

OPEN ENGAGEMENT OF SOCIETAL ACTORS

KEY POINTS REGARDING CROWDSOURCING:



- A collection of information, opinions, or work from a group of people, usually sourced via the Internet.
- Allows companies to save time and money while tapping into people with different skills or thoughts worldwide.
- While crowdsourcing seeks information or work, crowdfunding seeks money to support individuals, charities, or startup companies.
- Enables cost savings, speed, and the ability to work with people who have skills that an in-house team may not have.

CURRENT EVIDENCE

KEYPOINTS :

OPEN SCIENCE, OPEN DOORS: A GUIDE TO HOW YOUR RESEARCH CAN ACHIEVE BETTER VISIBILITY AND IMPACT

PILLAR 4: OPEN DIALOGUE WITH OTHER KNOWLEDGE SYSTEMS



Marginalised
scholars

Indigenous
people



Local
communities



Special Feature: Original Article | [Open Access](#) | Published: 19 March 2021

Breaking monologues in collaborative research: bridging knowledge systems through a listening-based dialogue of wisdom approach

[Adriana Moreno-Cely](#) , [Darío Guajera-Nahui](#), [Cesar Gabriel Escobar-Vasquez](#), [Tom Vanwing](#) & [Nelson Tapia-Ponce](#)

[Sustainability Science](#) 16, 919–931 (2021) | [Cite this article](#)

3140 Accesses | 11 Citations | 11 Altmetric | [Metrics](#)

Abstract

The urgent need to address the sustainability issues of the Anthropocene requires a dialogue capable of bridging different knowledge systems, values, and interests. This dialogue is considered one of the most crucial challenges in collaborative research approaches. With this research, we seek to break with monologues in collaborative research by offering a decolonising methodological approach that combines the notion of dialogue of wisdom, communication theories and ethical principles of Andean philosophy. The methodological framework, the *circle of dialogue of wisdom*, is the result of an iterative action–reflection process developed in a North–South collaborative research project for territorial planning in Bolivia. Our praxis confirms the potentials offered by a listening-based dialogue for (i) dealing with knowledge–power relations in collaborative research projects, (ii) promoting mutual learning and knowledge co-creation between different knowledge systems, (iii) re-valuating local and Indigenous knowledge, and (iv) decolonising the society–science–policy dialogue.

WHO CAN BENEFIT FROM OPEN SCIENCE?



EVERYONE !!

CURRENT EVIDENCE

KEYPOINTS :

OPEN SCIENCE, OPEN DOORS: A GUIDE TO HOW YOUR RESEARCH CAN ACHIEVE BETTER VISIBILITY AND IMPACT

WHY SHOULD I EMBRACE OPEN SCIENCE?

Greater access to scientific inputs and outputs can increase scientific productivity through reducing duplication, allowing more research from the same data, and multiplying opportunities for domestic and global participation in the research process.

Open access to scientific outputs allows for greater evaluation and scrutiny by the scientific community which means more accurate replication and validation of research results. Openness to data contributes to maintain science 's self-correction principle.

Open science can reduce delays in the re-use of scientific research including articles and data, and promote a swifter path from research to innovation to produce new products and services.

Science plays a key role in today's knowledge economies and increased access to research results, including data, can positively impact not only scientific systems but also innovation.

Science, often publicly funded, should be publicly accessible to promote greater awareness among citizens and to build public trust and support for public policies and investments in research. Open science also promotes citizen science in experiments and data collection.

Open science promotes collaborative efforts and faster knowledge transfer for a better understanding of global challenges and wicked problems.



Figure adapted from Gaelen Pinnock, University of Cape Town.

CURRENT EVIDENCE

KEYPOINTS :

OPEN SCIENCE, OPEN DOORS: A GUIDE TO HOW YOUR RESEARCH CAN ACHIEVE BETTER VISIBILITY AND IMPACT

How can I emulate open science practices into my lab/
working culture ?



Gain recognition for your scientific work, irrespective of what career stage that you are in!

Are UPM Researchers Ready for Open Science? : A Quick Survey



SUMMARIZED BY: SALWANA AHMAD

This is a summary from a talk session in the program "The International Clinical Trial Day 2023" by Dr. Zubaidah Iberahim, Senior Librarian, The Sultan Abdul Samad Library (PSAS), UPM on 19th May 2023. This session was in line with the Launching Ceremony of Malaysia Open Science Platform and Forum on Open Science held on 16th May 2023 to officially introduce the data-sharing platform to the public with the aim to bridge the gap between research, innovation, and commercialization and enhance the country's innovation capabilities.

UPM Involvement

2020 - 2023

A 3-year pilot project linking all 5 Research Universities and Research Institutes under MOSTI for Malaysia Research University Network (MRUN):

1. To carry out a landscape study on Open Science in Malaysia.
2. To develop one National Guideline on Open Science.
3. To train 200 data stewards (by July 2022).
4. To reach 500,000 people and raise awareness about Open Science.
5. To develop and execute one Platform for raw research data sharing.

The online survey is available at <https://rb.gy/p7ric> for UPM's researchers.



MALAYSIAN OPEN SCIENCE PLATFORM (MOSP)

Read more on the Introduction of MOSP, its aim and focus areas [HERE](#)

Early Findings on the Survey

Are UPM Researchers Ready for Open Science?: A Quick Survey

Aim: This quick survey aims to identify the willingness of UPM researchers regarding open data – i.e., the sharing and reusing of research data. The responses are confidential and anonymous.

Questions: 6 simple multiple-choice and 'yes' or 'no' questions.

Principal Investigator: Dr. Zubaidah Iberahim, UPM Senior Librarian.

85 participants



- out of 300 participants give responses on the online-based survey as per May 17, 2023.
- The duration of data collection has been extended due to the low response rate.

Research ownership

66 (78%)



hold research data

While 12 (14%) said no and 7 (8%) was planning to hold any research data.

Data access



13 (15%)

allow data access while project is still **ongoing**

55 (65%)

allow data access when the project is **finished**.

Data findable and assessible

53 (62%)

interested to make their data **findable** on the Malaysia Open Science Platform (MOSP)



Data stewards assistance



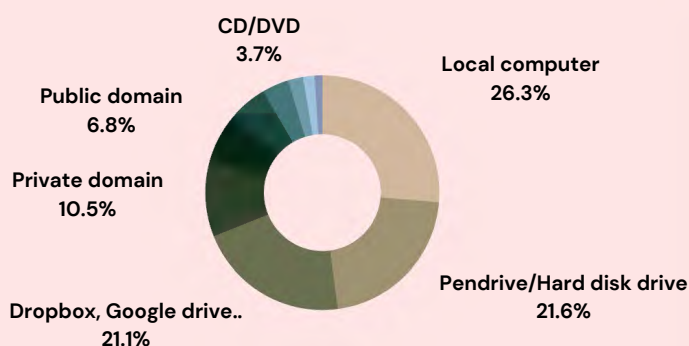
60 (71%)

wish to seek **assistance** from data stewards in submitting data set

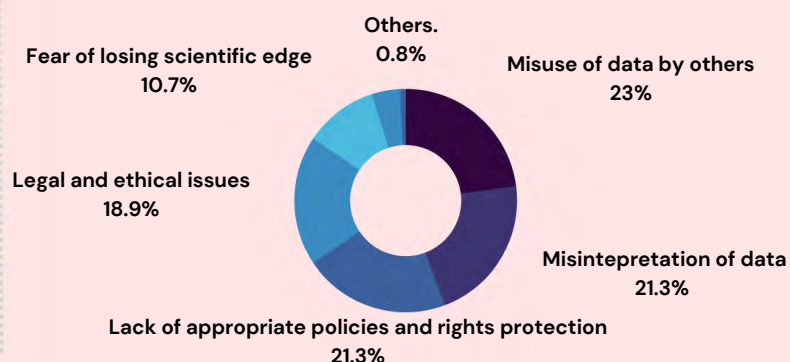
27 (32%)

interested to make their data **accessible** on the Malaysia Open Science Platform (MOSP)

Concerns Over Research Data Sharing



Depository of Research Data



Both charts above shown responses from the participants regarding their concerns about sharing of data research with others and the depository of research data.

CURRENT EVIDENCE

MALAYSIA OPEN SCIENCE PLATFORM (MOSP)



<http://www.mosp.gov.my/>

One Platform,
Unlimited Possibilities

Your gateway to Malaysian research data

Search for Data All Fields

SEARCH

Advanced Search

Dive into the world of science
Malaysian research at a glance

1,270 Datasets	242 Data Stewards	7 Data Repositories	1,393 Visitors
-------------------	----------------------	------------------------	-------------------

MOSP has been officially launched on 16th May 2023

To learn more about
Malaysia Open Science
Platform (MOSP)



CURRENT EVIDENCE

FURTHER READING ON OPEN SCIENCE



JAMA Network

JAMA

This Issue Views 7,022 Citations 13 Altmetric 17

PDF Share

FREE

Editorial

December 5, 2022

Data Sharing and the Growth of Medical Knowledge

Annette Flanagan, RN, MA¹; Gregory Curfman, MD¹; Kirsten Bibbins-Domingo, PhD, MD, MAS¹

Author Affiliations | Article Information

JAMA. 2022;328(24):2398-2399.
doi:10.1001/jama.2022.22837

CLICK!

In medical research, data sharing facilitates discovery and innovation, transparency, and reproducibility, and, ultimately, trust in science. Impelled by the COVID-19 pandemic, demands for data sharing have

Asian Bioethics Review (2019) 11:255-273
https://doi.org/10.1007/s41649-019-00097-z

ORIGINAL PAPER

Openness in Big Data and Data Repositories

The Application of an Ethics Framework for Big Data in Health and Research

Vicki Xafis¹ · Markus K. Labude¹

Received: 31 July 2019 / Revised: 28 August 2019 / Accepted: 28 August 2019 / Published online: 1 October 2019
© The Author(s) 2019

CLICK!

Abstract
There is a growing expectation, or even requirement, for researchers to deposit a variety of research data in data repositories as a condition of funding or publication. This expectation recognizes the enormous benefits of data collected and created for research purposes being made available for secondary uses, as open science gains increasing support. This is particularly so in the context of big data, especially where health data is involved. There are, however, also challenges relating to the collection, storage, and re-use of research data. This paper gives a brief overview of the landscape of data sharing via data repositories and discusses some of the key ethical issues raised by the sharing of health-related research data, including expectations of privacy and confidentiality, the transparency of repository governance structures, access restrictions, as well as data ownership and the fair attribution of credit. To consider these issues and the values that are pertinent, the paper applies the deliberative balancing approach articulated in the *Ethics Framework for Big Data in Health and Research* (Xafis et al. 2019) to the domain of Big Data and Data Repositories. Please refer to that article for more information on how this framework is to be used, including a full explanation of the key values involved and the balancing approach used in the case study at the end.

Keywords Big data · Open data · Open science · Data repository · Decision-making framework · Health data

Background
“Openness” in scientific research relates to the sharing, in a usable way, of scholarly publications and data resulting from scholarly research (including metadata and the

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Springer

Information Services & Lib 37 (2017) 463–474
DOI 10.3233/ISU-170861
IOS Press

463

Systematizing benefits of open science practices

Valeria Arza^{a,b,*} and Mariano Pressoli^{a,b}
^a Research Center for the Transformation (CENT), Argentina
^b National Scientific and Technical Research Council (CONICET), Argentina

CLICK!

Abstract. Open science aims at the creation of public scientific goods by means of sharing outputs and widening and facilitating collaboration, in one or many of the different research stages. There are many beneficial aspects of open science that have been claimed in the literature, such as improving research efficiency, accelerating creativity, democratizing knowledge and empowering stakeholders. These claims are normally based on anecdotal experiences. In this paper we aim at organizing the extant literature on benefits of open science, in an attempt to build a bi-dimensional framework that relates characteristics of openness with benefits to be expected. The first dimension accounts for the characteristics of the collaboration, while the second for aspects of access to shared outputs. In the conclusion, we briefly illustrate our framework using evidence from four Argentinian open science initiatives.

Keywords: Open science, analytical framework, research, science policy

1. Introduction

In modern scientific tradition, collaboration among scientists and the production of scientific public goods have been the engine for scientific production and the justification for public investment in science [18]. Scientists have been expected to collaborate across disciplines and over generations so as to contribute to a stock of interconnected knowledge needed for scientific advance. This knowledge would be publicly shared and disseminated through publications [40]. However, in practice, scientific knowledge production has been much more closed, fragmented and isolated from social problems than the idealist conception of modern science expected, as a result of three phenomena:

Firstly, scientific practice has become locked in the pursuit of personal/individual success. Scientists compete to reach priority and much of their knowledge is not transmitted. This is due to fear of competition, criticism, convention in a given field or the intrinsic characteristics of the tacit knowledge involved. Thus, although scientists publish their results, some of the relevant information to be able to construct knowledge cumulatively is not published [24]. Notoriously, negative results of experiments are not generally published. As a result, scientific production has been much less collaborative than it could have been and also less transparent. Resources become misused affecting negatively research productivity and reproducibility (and therefore reliability).

Secondly, assessment schemes have been increasingly influenced by marketing strategies of academic publishers, which push for the use of quantitative indicators based on citations as proxy for research

*Corresponding author. Tel.: (5411) 4373-3714; E-mail: arza@fand-ccat.org.ar.

0167-5365/17/5355-00 © 2017 – IOS Press and the authors.
This article is published online with Open Access and distributed under the terms of the Creative Commons Attribution Non-Commercial License (CC BY-NC 4.0).

Why should I publish my protocol or grant proposal?

Saying More with OSF Metadata:

OSF Metadata to Support Data Sharing Policy Compliance

Center for Open Science

New OSF Metadata to Support Data Sharing Policy Compliance

270 views · 3 mo ago

9 Dislike

Share Remix Download

Center for Open Science
4.19K subscribers

SUBSCRIBE

Why should I publish my protocol or grant proposal?

Editorial Director

- 6 months ago
- Updated

New in 2020: Because papers in *JMIR Research Protocols* ([Why should I publish my protocol or grant proposal?](#)) and *JMIRx* ([What is JMIRx?](#)) cost less than US\$1000, publication in these journals is essentially free of charge for [University of California](#) authors (as well as other institutional members).

[JMIR Research Protocols](#) (JRP) is a unique PubMed-indexed journal that publishes protocols and grant proposals from all areas of medicine. We are particularly interested in protocols, proposals, and ongoing studies in the areas of innovation and technology in health (in fact, we are trying to be the most complete repository of ongoing studies in this area), but JRP publishes research protocols and proposals from *all* areas of medical and health research.

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Aims & Scope

Nature Protocols publishes secondary research articles - predominantly [Protocols](#) (including [Protocol Updates](#) and [Protocol Extensions](#)), but also techniques-related [Reviews](#), [Perspectives](#), [Correspondences](#), [Arising](#), [Commentaries](#), and [Consensus Statements](#) - all of which are based on published primary research papers. We cover new techniques and technologies, as well as established methods, used in all fields of the biological, chemical and clinical sciences. Articles are commissioned by the editors. Authors are welcome to submit suggestions for articles as [Pre-submission Enquiries](#), which may then be formally commissioned by the editors.

UNESCO RECOMMENDATION ON OPEN SCIENCE



Newsroom Explore UNESCO English

Our Expertise Our Impact Ideas & Data Get Involved

Open science

Making science more accessible, inclusive and equitable for the benefit of all

Why Open Science?

The UNESCO Recommendation on Open Science provides the first internationally agreed definition of Open Science which is defined as an inclusive construct that combines various movements and practices, aiming to:

- make multilingual scientific knowledge openly available, accessible and reusable for everyone
- increase scientific collaborations and sharing of information for the benefits of science and society,
- open the processes of scientific knowledge creation, evaluation and communication to societal actors beyond the traditional scientific community.

To read more on the implementation and toolkit in Open Science, click [\[HERE\]](#)



● REC

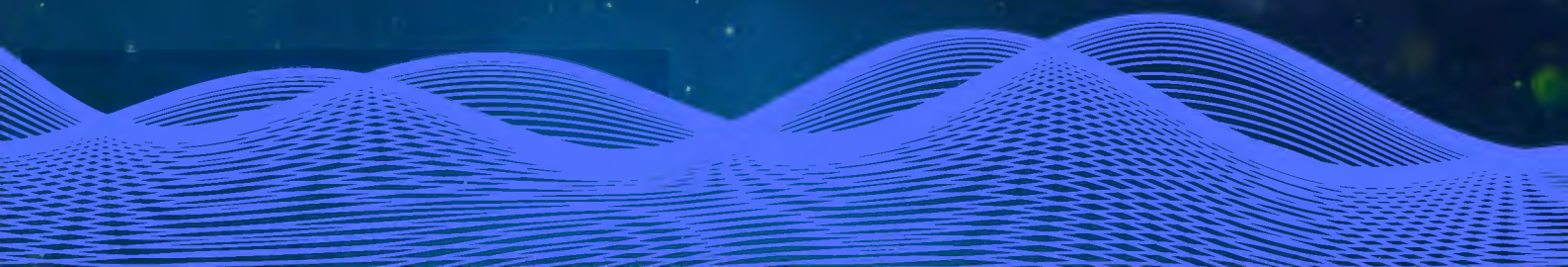
METASCIENCE 2023 CONFERENCE

May 9-10, 2023 | Washington, DC
[#metascience2023](#)

The Metascience 2023 Conference, at the National Academy of Science (NAS) Building in Washington, DC, is a global gathering to connect the study of science across disciplines, methodologies, and regions. It follows the inaugural Metascience 2019 Symposium held at Stanford University and Metascience 2021 Conference held virtually

WATCH THE RECORDING FROM THE VIRTUAL SYMPOSIA ON

[HTTPS://METASCIENCE.INFO/VIRTUAL-SYMPOSIA/](https://metascience.info/virtual-symposia/)



PEER COMMUNITY IN

PCI, a free recommendation process of scientific preprints based on peer reviews and a journal

PCI is a non-profit organization of researchers offering peer review, recommendation and publication of scientific articles in open access for free.

[Submit a Preprint](#)

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[Read the Peer Community Journal](#)



neuromatch

Democratizing Science – Connecting People

Neuromatch is a worldwide non-profit movement with the goal of equitable participation in scientific research. We run several activities to help further our cause.

We started in neuroscience, and we are branching to other domains, starting with climate science.

[For further reading](#)



Overview

THE TOOLS FOR SYSTEMATIC LITERATURE REVIEW



SALWANA AHMAD
RESEARCH OFFICER

There are tools to assist a more standardized and rigorous methodology in any particular systematic review. It helps improve efficiency and ensure that all relevant studies are included and analyzed consistently and transparently. The tool typically involves a step-by-step approach to searching, screening, selecting, appraising, synthesizing, and reporting the review results.

SUMMARY OF KEYPOINTS

Definition of Systematic Review (SR): 'To identify, appraise and synthesize all the empirical evidence that meets pre-specified eligibility criteria to answer a given research question' - (Cochrane definition, 2013)

BARRIERS AND PROBLEMS

Problems with SR by domains (Uttley et al. 2023):

Comprehensiveness:

- Error or omissions in the search strategy.
- Insufficient literature searches.
- Omission of relevant studies.

Rigorous:

- Flawed risk of bias undertaken.
- No quality assessment was reported.
- Low methodological (AMSTAR) quality.

Transparent:

- Search strategy not provided.
- Reasons for excluding eligible studies not provided.
- Low reporting (PRISMA) quality.

Objective:

- Single reviewer.
- Lack of statistical expertise in handling quantitative data.
- High risk of bias (ROBIS)

Key barriers in the SLR process (Hassler et al. 2016):

- > Lack of tool support for data extraction.
- > Difficulty in analyzing and presenting qualitative data.
- > Ensuring the SLR topics are relevant to the industry.
- > Inadequate search engines.
- > Low quality of the articles.
- > Lack of methods for synthesizing data.

ISSUES AND CHALLENGES IN THE SLR PROCESS

SLRs are time-consuming to conduct. The research team must perform the formal process manually (without adequate tool support).

"Many problems faced by systematic reviewers are similar across disciplines"

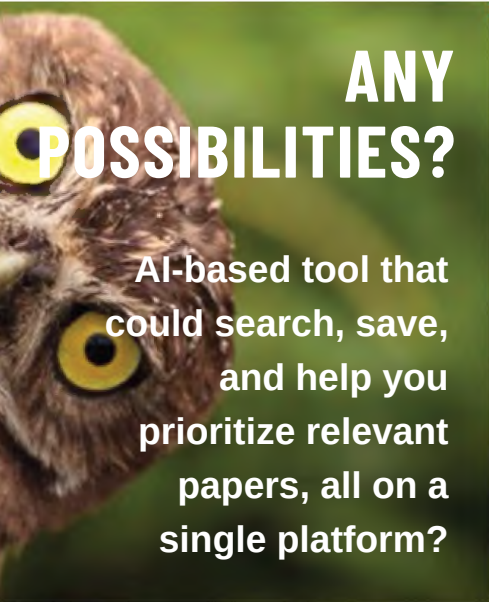
SLR TOOLS NEED

At least four of these six items can be addressed by tool support.

- Data extraction
- Data synthesis
- Inadequate search engines
- Analysis/presentation of qualitative data

"There is general consensus across domains that improved tools are needed"

Marshall et al. 2015



ANY POSSIBILITIES?

AI-based tool that could search, save, and help you prioritize relevant papers, all on a single platform?

AI TOOLS FOR RESEARCHER

“How am I supposed to organize all this information?”
“How should I prioritize which paper to read first?”

- These tools assist researchers in streamlining the process, organizing the results of their literature searches, and facilitating the analysis and reporting of their findings.
- Using these tools, research workflows can be optimized, which enables data search, collation, and organization, as well as assists in evaluating the papers to read.
- It can also reduce the burden of screening, minimize publication bias, reduce the possibility that relevant studies will be overlooked, and improve decision-making in the health system.

TOOLS IN HEALTHCARE RESEARCH <<<

Avoid frustration:

- Having to browse through several scholarly databases (even if you do not find the information you need).
- Download all the papers you find, and save them in reference managers (which may or may not accept files in all formats).
- Going through the title, abstracts, and conclusion of countless downloaded papers only to realize that the information is not even remotely related to your research.
- Disappointment from having spent so many hours and not finding anything relevant when you could have done something more productive.



Main prioritize features:

- Support for multiple users at different geographical locations, screen citation, full-text reviewing, risk of bias assessment, extraction of study data, and tool maintenance.
- Browse through several scholarly databases, going through the title, abstracts, and conclusions of countless downloaded papers. with records to screen is high.
- Provide labeling of studies and reasons for exclusion.
- Manage SR/SLR review through all stages of the process (bibliographic management, screening, coding, and right through to synthesis)
- Manages references, stores PDF files, facilitates qualitative and quantitative analyses, and allows easy export of review data to enable use with other software programs.



Main prioritize features:

- Text mining helps to analyze large amounts of raw data and find relevant insights.
- Create text analysis models that learn to classify or extract specific information based on previous training.



Main prioritize features:

- Facilitates preparation of protocols and full reviews, including text, characteristics of studies, comparison tables, and study data.
- It can perform a meta-analysis of the data entered, and present the results graphically.



CHOOSE RIGHT TOOLS HANDY TOOLBOX SEARCH



The Systematic Review Toolbox

835 Tweets

Follow

The Systematic Review Toolbox @srtoolbox · Dec 2, 2022

We wrote this! 🛠️📖

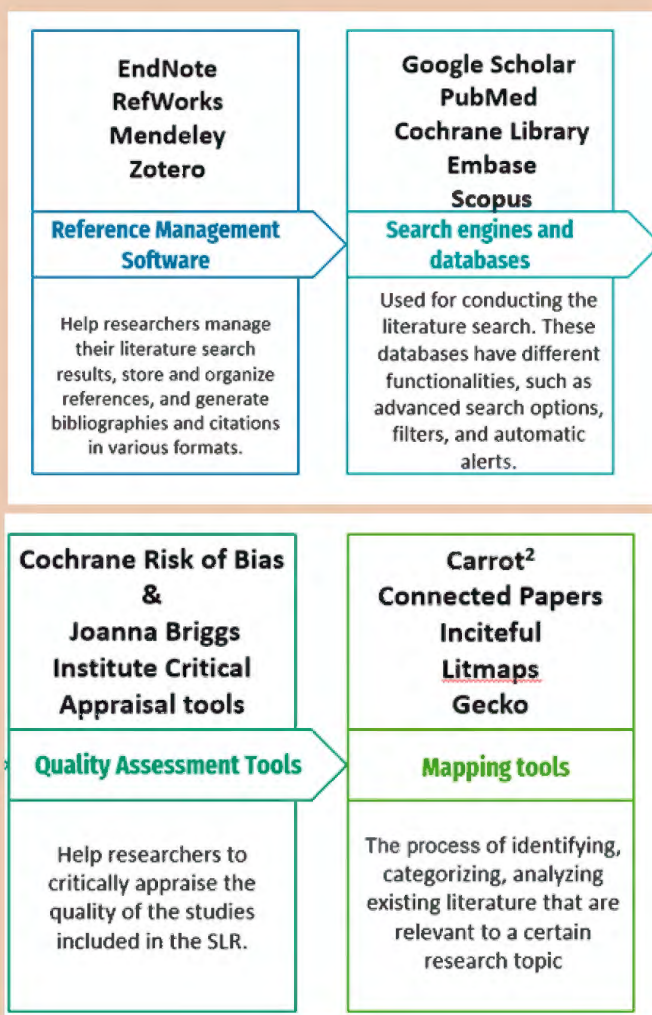
Dr. Chris Marshall, University of York, maintains a comprehensive database of tools for automating and conducting systematic reviews. Search guidelines or software by referring to SLR stages, its latest publications, and a direct link to the website are provided to readers.

Main prioritize features:

- Automation tools need to be able to work together, to exchange data and results, so that systematic reviewers can choose the toolkit that best suits their review.
- Scientifically sound, acceptable by the scientific community, and valid (Hassler et al. 2016)

➡️➡️ ADDITIONAL TOOLS

These tools can be used in combination or individually, depending on the research question and the resources available, to conduct a comprehensive and rigorous systematic literature review.



KEY SELECTION OF TOOLS

Identify and prioritize tool features that would be beneficial when conducting an SLR

RISK OF BIAS TOOL

RoB 2.0

ROBINS-I

ROBINS-E

ROB ME

Robvis



SciScore

Methods review tool for scientific articles.

PITTS

Record screening and data extraction

SRDR

Extraction and management of data

Scholarcy

An online summarizing tool

Grammarly

Helps you write mistake-free

Quilbot

Paraphrasing tool

SYSTEMATIC REVIEW SOFTWARE COMPARISON

Software	Guide	Cost	Setting up reviews	Piloting or scoping	Literature searching	Duplicate checking	Article screening	Data coding	Critical appraisal	Result synthesis	Documentation
CADIMA	CADIMA	Free	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕
colandr	Colandr	JABSOM	Free	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕
covidence	Covidence	\$	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕
DistillerSR	DistillerSR	\$	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕
EPPI	EPPI-Reviewer	\$	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕
HAWC	HAWC	Free	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕
METAGEAR R	METAGEAR R	Free	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕
Nested KNOWLEDGE	Nested Knowledge	\$	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕
PARSIFAL	PARSIFAL	Free	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕
Rayyan	Rayyan	JABSOM	Free	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕
RevMan 5	RevMan 5	Free	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕
SRDB PRO	SRDB PRO	\$	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕
SRDR	SRDR	Free	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕
SUMARI	SUMARI	Free	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕
SWIFT-REVIEW	SWIFT-Review	Free	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕
SyRF	SyRF	Free	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕

Table 1 above was adapted from Kohl and colleagues' excellent review of online tools for health s

ETHICAL CONSIDERATION AND IMPLICATION

One major concern is the potential for bias in AI algorithms, which could perpetuate existing inequalities and discrimination. Also, issues related to privacy where personal information has been collected, security, and the potential for AI to replace human jobs.

It is important that educators, researchers, and policymakers need to address these concerns and ensure that AI is used in a responsible and ethical manner.

ACS NANO
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Best Practices for Using AI When Writing Scientific Manuscripts
 Caution, Care, and Consideration: Creative Science Depends on It

Cite This: ACS Nano 2023, 17, 4091–4093 | Read Online

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Science is communicated through language. The media of language in science is multimodal, ranging from lecturing in classrooms, to informal daily discussions among scientists, to prepared talks at conferences, and finally, to the pinnacle of science communication, the formal peer-reviewed publication. The arrival of language tools driven by artificial intelligence (AI), like ChatGPT,^{1,2} has generated an explosion of interest globally. ChatGPT has set the record for the fastest growing user base of any application in history, with over 100 million active users in just two months, as of the end of January 2023.³ ChatGPT is merely the first of many AI-based language tools, with announcements of more either in preparation or soon to be launched.^{4,5} Many in scientific research and universities around the world have raised concerns of ChatGPT's potential to transform scientific communication: before we have had time to consider the ramifications of such a tool or verified that the text it generates is factually correct. The human-like quality of the text structure produced by ChatGPT can deceive readers into believing it is of human origin. It is now apparent, however, that the generated text might be fraught with errors, can be shallow and superficial, and can generate false journal references and inferences.⁶ More importantly, ChatGPT sometimes makes connections that are nonsensical and false.

We have prepared a brief summary of some of the strengths and weaknesses of ChatGPT (and future AI language bots) and conclude with a set of our recommendations of best practices for scientists when using such tools at any stage of their research, particularly at the manuscript writing stage. It is important to state that, even among the authors here, there is no consensus on the use of AI tools in scientific writing. ChatGPT is deficient due to its lack of analytical capabilities that scientists are expected to possess and the experiences that inform us. The most important concern for us as scientists is that these AI language bots are incapable of understanding new information, generating insights, or deep analysis, which would limit the discussion within a scientific paper.

information, generating insights, or deep analysis, which would limit the discussion within a scientific paper. While appearing well formulated, the results are, however, superficial, and over-reliance on the output could stifle creativity throughout the scientific enterprise. AI tools are adequate for regurgitating conventional wisdom but not for identifying or generating unique outcomes. They might be worse at assessing whether a unique outcome is spurious or ground-breaking. If this limitation is true for ChatGPT and other language chatbots under development, then it is possible that reliance upon AI for this purpose will reduce the frequency of future disruptive scientific breakthroughs. This is concerning since a 2023 article has already concluded that the frequency of such disruptive scientific breakthroughs is on a negative trajectory.⁷ Scientific research is becoming less disruptive—think more cookie cutter and less CRISPR.

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ANNOUNCEMENTS



Metascience 2023 Conference



The 8th World Conference on Research Integrity in Athens, Greece, will be held on location and online from 2 to 4 June 2024.



9th Asia Pacific Primary Care Research Conference (Research in The New Norm) & Pre-Conference Workshop Research Championship.
Venue: Sheraton Petaling Jaya Hotel; Date: 2 - 4 June 2023



Good Research Management Practice (GRMP) 8 - 9 June 2023 (Series 2) at Faculty of Medicine & Health Sciences UPM



Sampling in Clinical Research: Design & Strategies. 9th June 2023



MJH Series 18. 23rd June 2023



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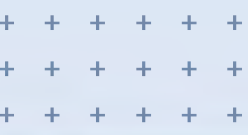
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April-May 2023

Free virtual symposia pre-conference events

Registration coming soon

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Annual Scientific Meeting 2023

(Gems of General Practice that Sustaineth and Sootheth in Storms)



9th Asia Pacific Primary Care Research Conference

(Research in The New Norm)

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Date: 2 - 4 June 2023 (Friday, Saturday & Sunday)

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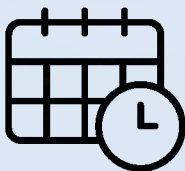
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- Pre-conference Workshop Research Championship - **2nd June 2023**
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Sampling in Clinical Research: Design & Strategies



Topic to be covered:

1. Sampling in the whole research process
2. Sampling in the frequentist statistics
3. Concepts & Terminology
4. Best Design & Strategy
5. Selection Bias

 9th JUNE 2023 (FRIDAY)

 2.45 – 5.00 PM

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Speaker



**Assoc. Prof. Dr
Chew Boon How**

Head
Clinical Research Unit
HSAAS UPM

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Committee 2023-2027 |

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TENTATIVE OF THE PROGRAM

Time	Agenda
2.45 – 3.00pm	Arrival of participants
3.00 – 3.05pm	Welcoming speech
3.05 – 4.35pm	Talk by Assoc. Prof. Dr. Chew Boon How
4.35 – 5.00pm	Q&A





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FULL ARTICLE

The Illness Experience of Long COVID Patients: A Qualitative Study Based on the Online Q&A Community Zhihu

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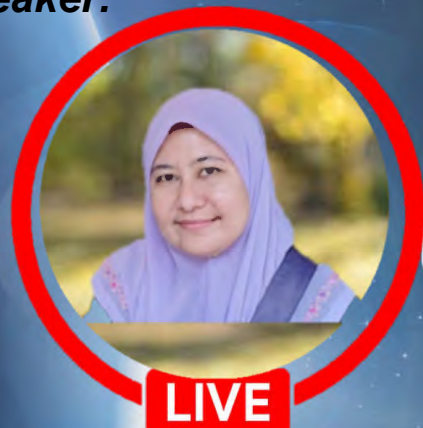
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