Research data: To share or not to share?

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Setting the Scene:

It is well accepted that data sharing facilitates the progress of research and is vital towards science that is open; where data is easily accessible, intelligible, reproducible, replicable, and verifiable. Despite the extensive benefits of data sharing, it is yet to become common practice among health and medical researchers. Evidence-based interventions that aim to encourage sharing and reuse of research data are lacking.

Objective:

This study aims to:
- Describe the current data sharing behaviours of researchers.
- Identify the enablers and barriers to data sharing practices.
- Characterize intervention functions likely to improve sharing practices.

Methods:

Participants were drawn from a research institute at Griffith University, Australia and invited to complete an anonymous online survey. Data were mapped onto the theoretical domains framework (TDF) and the COM-B model (capability, opportunity, motivation and behaviour) [1, 2] to emerging themes related to data sharing and characterization of behavioural functions that can be easily targeted by specific interventions. Participation in the study was voluntary and approved by the Human Research Ethics Committee of Griffith University.


Data Sharing Behaviours of Health and Medical Researchers

In total, responses from sixty-five researchers were included in the analysis. The majority were members of academic staff (69%); 25% were research fellows or research assistants and the remaining were adjunct staff (6%). All researchers are affiliated with the Faculty of Health most belonging to the School of Medical Sciences or Medicine (41.6%). Nearly 25% of the cohort considered themselves early-career researchers and 60% had worked in research for more than 10 years.

Sharing Behaviours

Who Shares Data?

38% Yes

62% No

SIXTY SEVEN % only share data after it is published

Why is Data Shared?

78% Collaboration with Colleagues
39% Advance Knowledge
70% Founding or Journal Req.
40% Increase Impact and Visibility
40% Public Benefit

How is Data Shared?

70% Journal
40% Conference
80% Repository

Factors That Influence Sharing Behaviours

BARRIERS

Consequence
Not understanding how to protect confidentiality

Consequence
Worried about IP being stolen, misinterpreted or misused

Enablers

Knowledge
Lack of understanding of the data sharing process

Skills
Not knowing how, where and who to share with

Resources
No time or resources to prepare data for sharing

Capability
Not knowing who is responsible for sharing

Behavior To Target For Change

Consequence
Having trust in the person requesting data

Social Influence
Recognising the public or patient benefit

Professional Identity
Receiving credit or increased visibility

Environmental Context
A funding, journal or Institutional requirement

A Sharing Future

We will apply and evaluate a series of evidence-based intervention functions that have been specifically designed to target barriers and enablers to data sharing.

Key Outcomes:

- This study provides a systematic and theoretically-based approach to designing interventions that will promote data sharing practices among health and medical researchers.
- Using the Behavior Change Wheel (BCW) we have identified the most effective intervention functions to promote enablers and mitigate barriers of researcher data sharing behavior’s.
- For example, to address the behaviour associated with knowledge the BCW identifies education, training or enablement interventions as effective functions.

For more detail about this study contact Michelle Krahe m.krahe@griffith.edu.au