

Promoting Participation in Open Science: Changing Behaviours to Encourage Data Sharing in Health and Medical Research

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Background

It is well accepted that sharing data presents new opportunities across the spectrum of research and is vital towards science that is open and accessible. Despite this, data sharing among researchers is yet to become common practice and evidence-based interventions are currently lacking.

Objectives

In this study, we apply the theoretical domains framework (TDF) and the COM-B model (capability, opportunity, motivation and behaviour) to identify data sharing behaviours (i.e. drivers and barriers) among researchers. These outcomes are used as an evidence-base to design strategies and interventions to address targeted behaviours.

Method

A cohort of 81 health and medical researchers from an academic research institute, completed a survey designed to evaluate their research data management practices. The outcomes presented herein, include the motivation, willingness, and a behavioural analysis of data sharing practices.

Results

Data mapped onto the TDF and COM-B model identified 10 behavioural themes; four drivers and six barriers. The primary barrier was the belief about the consequence of data sharing (i.e. reflective motivation), and the primary driver was the positive social influence (i.e. social opportunity) that sharing data would have to patients and the greater public. An intervention strategy aimed at reducing barriers and promoting drivers was developed with key stakeholders.

Conclusions

This study presents a theoretical and evidence-based approach to designing behaviour change interventions to promote research data sharing. To effectively optimize the use of health and medical research data, it is vital that we move towards science that is open; where data is easily accessible, intelligible, reproducible, replicable, and verifiable.