

Applying behavioural science to research culture: an applied, interdisciplinary study on enabling collaborative research leadership

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BACKGROUND

The Royal Society defines research culture as encompassing the behaviours, values, expectations, attitudes and norms of our research communities. It influences researchers' career paths and wellbeing, and determines the way that research is conducted and communicated. Collaborative research leadership and management are a key aspect of research culture and a form of human behaviour. We aimed to apply behavioural science to explore factors influencing collaborative leadership and management in a UK university, as a basis for identifying recommendations for enabling more collaborative leadership practices.

AIMS

1. Identify the key actions (behaviours) of collaborative research leadership.
2. Identify the enablers and barriers of primary investigators (PIs) to performing collaborative research leadership.
3. Generate intervention recommendations to promote collaborative research leadership at an academic institution.

METHODS

We conducted 31 interviews with research active staff, new and existing PIs, in a UK university.

- Sources of behaviour
- Intervention functions
- Policy categories



The interviews were semi-structured around questions to elicit current practices, as well as COM-B domains to explore broad range of individual, socio-cultural and environmental influences of collaborative leadership. The influences were mapped into the Behaviour Change Wheel for potential behaviour change techniques (BCTs) and intervention strategies.

FINDINGS

Collaborative Leadership Behaviours

We identified 12 behaviours underpinning collaborative research leadership and management. Some examples are:

Leaders asking questions for ideas and making sure everyone, regardless of seniority, has an opportunity to contribute equally with ideas during project discussion meetings.

Leaders distributing the leadership by delegating shared responsibilities based on people's skills, expertise and interest.

Leaders hold regular check-ins with the team members, for example to find out if they need support and learn which areas they are working on.

Collaborative Leadership Barriers & Enablers

A total of 29 themes representing enablers and barriers to collaborative research leadership and management were identified across COM-B domains. Examples are:



Intervention Strategies

A three-component intervention with 14 strategies, utilising 28 BCTs, is suggested to target the barriers and enablers.

Component	Example Behaviour Change Techniques	Example Activities
Workshops	<ul style="list-style-type: none"> Instructions on how to perform behaviour Behavioural practice 	<ul style="list-style-type: none"> Providing a list of collaborative workshop behaviours Peer-practice of interpersonal skills
Day-to-day practice	<ul style="list-style-type: none"> Goal setting Feedback on behaviour 	<ul style="list-style-type: none"> Setting SMART goals in reflective journals 360 feedback with colleagues
Institution communications strategy	<ul style="list-style-type: none"> Social comparison 	<ul style="list-style-type: none"> Sharing collaborative leadership 'success stories'

CONCLUSION

Collaborative leadership is behaviourally complex, comprised of multiple behaviours and driven by an interplay of capability, motivation and opportunity factors. Thus, multifaceted strategies are needed to enact change and improve research culture. The intervention is currently being piloted and evaluated.