

# A better way to Collaboratively Research

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## INTRODUCTION

Collaborative research creates larger datasets with more power and impact. Yet conducting collaborative research can be complex. Over the past five years the Maxillofacial surgery Trainees Research Collaborative (MTReC) has engaged with over 50 OMFS units and over 100 individual OMFS trainees to publish ten peer reviewed journal articles and around 25 oral and poster presentations.

We aim to share our learnings to encourage involvement with, and leadership of future collaborative research within OMFS.

## AIMS

- Determining appropriate research questions and timescales
- Answering questions over ownership of data and setting up appropriate tools to gather data
- Motivating and engaging with trainees
- Appropriate citation and authorship

## MATERIALS/METHOD

Potentially useful learnings were chosen through an iterative discussion process involving the MTReC committee and collaborators. Discussion points were coded and reduced into sub categories using qualitative methods. Items were then discussed further to

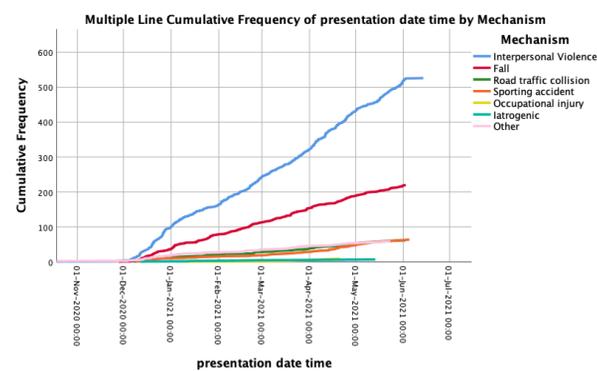


Figure 1. Data acquisition for the MANTRA snapshot audit, divided by mechanism. Note the increase in interpersonal violence in late December.

## RESULTS

- Appropriate studies require larger volumes of data than could be gathered by a single centre. Prospective studies improve scientific rigour, and avoid bias towards centres with improved electronic data availability. Snapshot audits are ideal as they use only data which is already gathered.
- Data ownership is divided between MTReC and collaborators, with individual centres retaining ownership over their own data. The Redcap database systems allows convenient data input and editing/updating of data by collaborators.
- Trainees individual motivation makes MTReC work. Those applying for their next stage of training often require evidence of engagement in research, work in OMFS centres, and have some spare time which can be dedicated to research. Invitation to join authorship groups may be an additional incentive to engagement.
- Appropriate citation and authorship remains a challenge for all collaboratives. Horizontal authorship models give additional motivation to collaborators, but may disincentivize the primary authors of a manuscript and the organising committee. Different journals have different authorship rules, which can be changed only with significant effort.

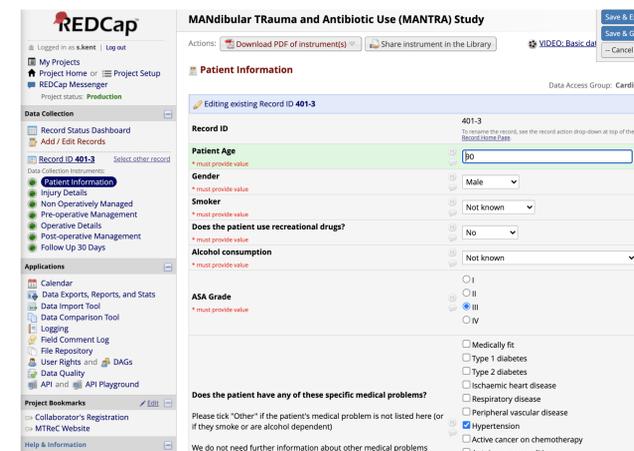


Figure 4. Page one of the redcap data collection tool used in MANTRA. Redcap data entry was available on personal e-devices, and

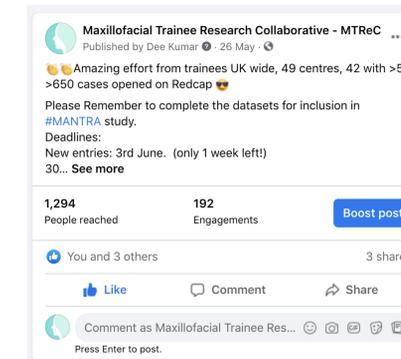


Figure 3. Social media allows immediate communication and interaction with collaborators and potential collaborators.



Figure 2. National Collaborators for the MANTRA snapshot audit were based at 41 sites across the UK.

## CONCLUSIONS

Collaborative research is suited to answering research questions which require more data than a single researcher could gather. By sharing the work required, greater volumes of data and hence greater statistical power is available.

The use of social media in recruitment and communication with collaborators allows timely dissemination of updates and enhances engagement. OMFS Trainees, primarily in their 20s and 30s, are the primary collaborators therefore social media lends itself to being the primary mode of communication.

During the pandemic this reliance on technology has grown. The delivery of a major collaborative project in the absence of any face to face communication for over 18 months proves the importance of social media and instant communication technology in collaborative research.

Carrying out projects with timescales contingent on job rotations allows trainees to be involved throughout a project and avoids loss of data and collaborators. DCTs are invited to participate early in their rotations, and data collection starts soon afterwards. This allows up to 9 months of data collection before trainees rotate to their next placement.

Clear communication with collaborators is key, and incentivisation to collect data is important. Trainees are often very motivated to carry out research and have time to do so. Authorship varies between journals and requires some negotiation to ensure correct citation.

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## COLLABORATORS

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