Official title: Mobile mindfulness to improve psychological distress after critical illness
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Statistical analysis
Contextual framing of feasibility success was performed by comparing observed vs. *a priori*-stated benchmark frequencies for key study milestones such as rates of attrition, adherence to telephone sessions, and interview completion. Similarly, comparison of observed to benchmark means was performed for acceptability (CSQ) and usability (SUS), as well as examination of participant feedback from post-intervention semi-structured interviews.

For all distress outcomes, we estimated mean changes and corresponding CIs from baseline to each follow up for each treatment group using general linear models and SAS PROC MIXED (SAS Institute, Cary NC). Models were fit with a compound symmetry correlation between patients' repeated measures.

Methods and SAS Code

In the following code for the psychological distress outcome models, the analysis dataset

– intdata – is stacked and sorted, in ascending order by patient (variable

name=record_ID) and time point (variable name=interview), such that there is one

record per patient per time point.

In the model, FOLLOW1 and FOLLOW2 are indicator variables for the two follow-up

interviews, respectively; arm_mm is the indicator variable for the mobile mindfulness

group, and tm_arm is the indicator variable for the telephone mindfulness group, with

education group as the referent category.

SAS Code for the following outcomes (presented in Table 2 and eTable 4):
```
proc mixed data = intdata;
class record_ID int;
model outcome= Follow1 Follow2 arm_mm arm_tm arm_mm*Follow1 arm_mm*Follow2
arm_tm*FOLLOW1 arm_tm*FOLLOW2 /ddfm=kr solution residual cl;
repeated interview/subject = record_ID type = cs rcorr;
estimate 'ED Intercept' intercept 1/cl;
estimate 'ED at Follow1' intercept 1 follow1 1/cl;
estimate 'ED at Follow2' intercept 1 follow2 1/cl;
estimate 'MM baseline' intercept 1 arm_mm 1 /cl;

estimate 'MM at follow1' intercept 1 arm_mm 1 Follow1 1 arm_mm*Follow1 1/cl;

estimate 'MM at follow2' intercept 1 arm_mm 1 Follow2 1 arm_mm*Follow2 1/cl;

estimate 'TM baseline' intercept 1 arm_tm 1 /cl;
```

```
estimate 'TM at follow1' intercept 1 Follow1 1 arm_tm*Follow1 1/cl;

estimate 'TM at follow2' intercept 1 Follow2 1 arm_tm*Follow2 1/cl;

estimate 'ED at Follow1 differential from baseline' Follow1 1/cl;
estimate 'ED at Follow2 differential from baseline' Follow2 1/cl;
estimate 'MM at Follow1 differential from baseline' Follow1 1 arm_mm*Follow1 1/cl; estimate
'MM at Follow2 differential from baseline' Follow2 1 arm_mm*Follow2 1/cl;

estimate 'TM at Follow1 differential from baseline' Follow1 1 arm_tm*Follow1 1/cl;
estimate 'TM at Follow2 differential from baseline' Follow2 1 arm_tm*Follow2 1/cl;
estimate 'MM vs ED change from baseline to follow1' arm_mm*Follow1 1/cl; estimate 'MM vs
ED change from baseline to follow2' arm_mm*Follow2 1/cl;

estimate 'TM vs ED change from baseline to follow1' arm_tm*Follow1 1/cl;

estimate 'TM vs ED change from baseline to follow2' arm_tm*Follow2 1/cl;

contrast "Overall treatment test for FOLLOW1" arm_mm*FOLLOW1 1 ,
contrast "Overall treatment test for FOLLOW2" arm_mm*FOLLOW2 1 ,

run;
```