

SWAT 144: Social Incentive Retention Cover Letter to Improve Questionnaire Response Rates

Objective of this SWAT

To evaluate the effects of including a cover letter with Social Incentive text with the 4, 12, 18- and 24-month questionnaires on response rates of participants of the SOFFT study.

Study area: Retention

Sample type: Patients

Estimated funding level needed: Very Low

Background

Fundamental to health research is the testing of interventions through randomised controlled trials (RCTs). Achieving high participation, and retention of participants in RCTs has traditionally been difficult and published data show that a minority of RCTs recruit successfully [1, 2]. Problems with trial recruitment can limit the internal and external validity of a study and have a negative impact on the overall sample size and statistical power. Poor return of questionnaires in RCTs affects retention rates. This can introduce bias and thus affect generalisability and validity, with an associated reduction in statistical power. There is therefore a need to develop and test interventions to improve recruitment and retention of participants in RCTs, such as by using a SWAT to test recruitment and retention strategies in ongoing RCTs [3].

A contemporary method of incentivisation is via postal letters and personalisation of letters accompanying postal questionnaires has been identified an effective way to increase response rates [4]. A type of personalisation is social incentive, which involves persuading people to act in a certain way, and that this behaviour will be noticed [5]. The intervention cover letter in this SWAT is based on the concept of social incentive. A social incentive induces an individual to act a certain way due to the promise that their actions are noticeable or will be made public [5]. The term social incentive is used rather than 'social pressure' because the term social pressure tends to be only used in politics literature. There is currently no clear evidence that a social incentive cover letter is effective for trial retention [5].

Interventions and comparators

Intervention 1: Participants randomised to the Social Incentive cover letter group (intervention group) will receive this cover letter with their postal questionnaires at all follow-up time points (4, 12, 18 and 24 months)

Intervention 2: Those randomised to the control group will receive the standard cover letter at all follow-up timepoints.

Index Type: Method of Follow-up

Method for allocating to intervention or comparator

Randomisation

Outcome measures

Primary: The primary outcome will be the proportion of participants in each group who complete and return the 18-month questionnaire to York Trials Unit.

Secondary: 1. Time taken to return 18-month questionnaire form.

2. Completeness of the 18-month questionnaire.

3. Number of reminders required before 18-month questionnaire returned, or maximum number reached.

4. Cost-effectiveness of sending the social incentive cover letter.

5. Outcomes will be repeated for the 4, 12, and 24- month questionnaire forms, including participants in each SWAT group who complete and return each questionnaire form, time taken to return the questionnaire forms and completeness of those questionnaires.

Analysis plans

Analyses will be undertaken by a statistician blind to the SWAT allocation on an intention-to-treat basis. Statistical analyses will be conducted in STATA version 15 or later (StataCorp, College Station, TX, USA). Participant baseline data will be summarised descriptively by SWAT allocation. The primary outcome of completion and return of 18-month questionnaires will be analysed via a logistic regression model adjusting for age, host trial treatment allocation, whether they received a social incentive cover letter or not. The odds ratio, corresponding two-sided 95% confidence interval (CI) and p-value for the intervention type received will be presented. This analysis will be repeated for the 4, 12 and 24-month questionnaires as a secondary outcome.

Time to questionnaire completion will be analysed using Cox Proportional Hazards regression, adjusting for the same covariates as in the primary analysis model. Hazard ratios and their associated 95% confidence interval will be provided. The proportional hazards assumption will be evaluated using Schoenfeld residuals [6].

The number of reminders sent to a participant before returning/completion of the 18-month questionnaire will be analysed using a Poisson regression, adjusting for the same covariates as in the primary analysis. Should there be evidence of over dispersion or zero inflation, an alternative model (negative binomial, zero inflated Poisson, or zero inflated negative binomial) will be used as appropriate. The incidence ratio rate will be reported alongside its 95% CI and p-value. This analysis will be repeated for the 4, 12 and 24-month questionnaires as a secondary outcome.

Completeness of response will be assessed by a linear regression model, adjusting for the same variables as the primary analysis. The estimates, corresponding two-sided 95% CI and p-values will be presented.

Since the intervention (inclusion of a social incentive cover letter) requires no additional resources when compared to the control (inclusion of a standard cover letter), the costs for the intervention group is no larger than the costs for the control group. Therefore, the cost-effectiveness will be assessed by the associated staff time costs related to any telephone reminders required.

Possible problems in implementing this SWAT

None identified.

References

1. McDonald A, Knight R, Campbell M, et al. What influences recruitment to randomised controlled trials? A review of trials funded by two UK funding agencies. *Trials* 2006;7:9
2. Bower P, Wilson S, Mathers N. How often do UK primary care trials face recruitment delays? *Family Practice* 2007;24:601-3.
3. Treweek S, Bevan S, Bower P, et al. Trial Forge Guidance 1: what is a Study Within A Trial (SWAT)?. *Trials* 2018;19(1):139.
4. Edwards PJ, Roberts I, Clarke MJ, et al. Methods to increase response to postal and electronic questionnaires. *Cochrane Database of Systematic Reviews* 2009;(3): MR000008.
5. Cotterill S, Howells K, Rhodes S, Bower P. The effect of using social pressure in cover letters to improve retention in a longitudinal health study: an embedded randomised controlled retention trial. *Trials* 2017;18:341.
6. Schoenfeld D. Partial residuals for the proportional hazards regression model. *Biometrika* 1982;69(1): 239-41.

Publications or presentations of this SWAT design

Examples of the implementation of this SWAT

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