

# SWAT 33: Effects of a newsletter and Post-it® note on postal questionnaire response rates

## Objective of this SWAT

To evaluate the effects of a patient newsletter and a Post-it® note as a means of increasing response rates to a postal follow-up questionnaire.

Study area: Retention, Follow-up

Sample type: Patients

Estimated funding level needed: Unfunded

## Background

Postal questionnaires are widely used in health research to collect outcome data on participants [1]. They are an attractive means of collecting data, because they are easy to administer and may be the only economically viable method of collecting data on large numbers of participants who may be geographically dispersed. However, poor response rates can introduce non-response bias and reduce the statistical power of the study [2]. Studies in the elderly population have shown questionnaire response rates of 60% or less [3, 4]. Therefore, evaluating methods which can be implemented to improve response rates is highly relevant to health services researchers.

A Cochrane Methodology Review evaluated 110 different strategies to improve response rates to postal questionnaires and identified pre-notification as an effective means of increasing response rates. The odds of response were increased by a half when participants were pre-notified (odds ratio (OR): 1.45; 95% confidence interval (CI): 1.29 to 1.63) [5]. Although there have been several studies evaluating different methods of pre-notification (such as letters, postcards or telephone calls to participants), very few of these were conducted in a healthcare setting. One randomised trial of newsletters to increase response rates found a small statistically significant increase in response rates (OR 1.45; 95% CI 1.01 to 2.10) [6].

The Cochrane Review also found that the appearance of the questionnaire can affect response rates. For example, the odds of response were increased by a quarter when hand-written labelled questionnaires were used (OR 1.25; 95% CI 1.08 to 1.45) [5]. There have been several studies evaluating the appearance of questionnaires (such as using a more personalised approach and handwritten signatures on cover letters) including four studies which evaluated the effectiveness of attaching a Post-it® note to increase response rates to postal questionnaires. These studies were undertaken in an academic setting but did report a statistical increase ( $p < 0.05$ ) in responses rates when Post-it® notes were used [7].

## Interventions and comparators

Intervention 1: Newsletter plus handwritten Post-it® note.

Intervention 2: Newsletter plus printed Post-it®.

Intervention 3: Newsletter only.

Intervention 4: Handwritten Post-it® note only.

Intervention 5: Printed Post-it® only.

Intervention 6: No newsletter or Post-it® note.

Index Type: Method of Follow-up

## Method for allocating to intervention or comparator

Randomisation

## Outcome measures

Primary: Questionnaire response rate (defined as the proportion of patients returning their postal follow-up questionnaire or reminder questionnaire).

Secondary:

1) Time to response (defined as the number of days which elapsed between the questionnaire being mailed out to participants and the questionnaire recorded as being returned).

2) Proportion of participants requiring a reminder.

## Analysis plans

The primary outcome is proportion of patients who return their follow up or reminder questionnaire and the primary analysis is of the margins, which assumes that the effect of each intervention is uninfluenced by the presence or absence of the other – that is, there is no interaction between them [8]. The primary logistic regression model will include a variable for each intervention group (Post-it® and newsletter), clinical trial treatment group and other important covariates. Odd ratios and corresponding 95% confidence intervals will be obtained from this model. A secondary analysis will explore the interactions between the interventions. The primary logistic regression model will be extended to include an interaction term between the Post-it® and newsletter groups. Odd ratios and corresponding 95% confidence intervals for the interaction will be obtained from this model. The time to return the questionnaire will be derived as the number of days from the date the follow-up questionnaire was sent out to the date the follow up questionnaire was returned. A Cox's proportional hazards model for time-to-return the questionnaire will be used to compare the treatment groups. The model will include a variable for each intervention group (Post-it® and newsletter), clinical trial treatment group and other important covariates. The proportion of participants who are sent a reminder will be compared using the same model as the primary outcome.

### **Possible problems in implementing this SWAT**

Patients will not have the opportunity to give informed consent to enter into this sub-study but this is unlikely to be a major ethical issue, since the patients have already consented to receive questionnaires and approval has already been given to send out a newsletter.

### **References**

1. McColl E, Jacoby A, Thomas L, et al. Design and use of questionnaires: a review of best practice applicable to surveys of health service staff and patient. *Health Technology Assessment* 2001; 5(31).
2. Torgerson D, Torgerson C. *Designing randomised trials*. Basingstoke: Palgrave MacMillan, 2008.
3. Hardie JA, Bakke PS, Mørkve O. Non-response bias in a postal questionnaire survey on respiratory health in the old and very old. *Scandinavian Journal of Public Health* 2003; 31: 411-7.
4. Paganini-Hill A, Hsu G, Chao A, Ross RK. Comparison of early and late respondents to a postal health survey questionnaire. *Epidemiology* 1993; 4: 375-9.
5. Edwards PJ, Roberts I, Clarke MJ, et al. Methods to increase response rates to postal and electronic questionnaires. *Cochrane Database of Systematic Reviews* 2009; (3): MR000008.
6. Mitchell N, Hewitt C, Lenaghan E, et al. Prior notification of trial participants by newsletter increases response rates: a randomised controlled trial. *Journal of Clinical Epidemiology* 2012; 65: 1348-52.
7. Garner R. Post-it® Note Persuasion: A sticky influence. *Journal of Consumer Psychology* 2005; 15(3): 230-7.
8. Montgomery AA, Peters TJ, Little P. Design, analysis and presentation of factorial randomised controlled trials. *BMC Medical Research Methodology* 2003; 3: 26.

### **Publications or presentations of this SWAT design**

Cockayne S, Adamson J, Corbacho B, et al. The reform study: a case study of embedded trials. *Trials* 2015; 16(Suppl 2): P174.

Cockayne S, Adamson J, Martin BC, et al. The REFORM study protocol: a cohort randomised controlled trial of a multifaceted podiatry intervention for the prevention of falls in older people. *BMJ Open* 2014; 4(12): e006977.

### **Examples of the implementation of this SWAT**

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