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Letter

Tackling the challenges in conducting a 5-year longitudinal study of the Healthy Beginnings Trial

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The Healthy Beginnings Trial is a 5 year longitudinal study of 667 first-time mothers and their babies, conducted in some of the most socially and economically disadvantaged areas of Sydney between 2007 and 2013.[1,2] The aim was to determine whether a home-based obesity intervention during the first 2 years of life is effective for children at 2, 3.5 and 5 years of age. The details of the results from the 2 year follow up are reported elsewhere,[1,2] and the 3.5- and 5-year follow-up of the trial is still underway.[3] However, challenges conducting this longitudinal face-to-face survey are yet to be reported.

This letter reports on the retention challenges identified by the research assistants following a review of field notes, and strategies to maintain retention. At the completion of the 2-year and the 3.5-year surveys, 497 (75%) and 418 (63%), respectively, of mothers remained on the trial. These retention rates were similar to other studies.[4–7] A review of the circumstances under which participants dropped out of the trial was conducted and is shown in Table 1. Participants who dropped out of the program tended to be younger mothers on a lower income with a lower level of education.[1] Key challenges in maintaining retention include, but are not limited to, difficulty contacting and maintaining contact with participants who have transient living arrangements, the time involved conducting face-to-face interviews for data collection and the priorities of the research design conflicting with those of the participants. These factors influence the time participants have available to be interviewed and return missed telephone calls or text messages. This can be demonstrated through the time and motion study for the 2-month period between July and September 2012, which found that it took an average of 24 min in order to secure an appointment.

The Healthy Beginnings Trial's modest attrition rate can be attributed to several retention strategies in place. For example, a mail-out 1 month before a scheduled home visit, along with Christmas and birthday cards and school readiness resources are sent out in order to maintain regular contact. Other retention strategies include soliciting multiple phone numbers and alternate contacts at the time of recruitment, building strong relationships with the participants, conducting evening and weekend visits, and the use of research branding and logos. These retention strategies are commonly used in other studies.[4–7]

We found the use of an SMS text out service 1 month before a scheduled home visit was useful in identifying changes to participants' details, identifying disconnected mobile phone numbers and allowing alternative methods of contacting participants. With the increasing use of mobile phones in the community, many participants no longer used a landline, and we found them more likely to communicate via text message. Confirming all arrangements for home visits via text message does reduce the time spent travelling to cancelled appointments.

When making an appointment, it was important to explain the time and procedure involved during the home visit. This allowed the participant to be more prepared, to minimise interruptions from small children, personal phone calls or other visitors being present at the time of the interview. Resources such as colouring materials and

Table 1. Reasons for participants dropping out of the Healthy Beginnings Trial up to 3.5 years ($n = 667$)

Reason for dropping out of the Healthy Beginnings Trial	No. of participants	% of participants
Lost to follow up	85	12.74
Participant requested to withdraw	38	5.70
Participant moved away from area (overseas, interstate or regional New South Wales)	18	2.70
Family tragedy	8	1.20
Other reasons	6	0.90
Decided to not participate in Phase 2 of Healthy Beginnings	94	14.09
Total	249	37.33

balls were valuable assets to ensure children were occupied during the visit. There are often delays due to distractions with younger siblings, feeding new babies, or unexpected visitors when conducting home visits, so extra time should be allocated for this.

Compliance issues surrounding the use of accelerometers for measuring participants' physical activity for 7 days was also a challenge. Reasons for not wearing the monitor ranged from illness or forgetfulness, disinterest and peer group pressure. We noted that compliance was improved when this aspect of the trial is discussed at the time of making the appointment for the home visit. This also reduced time (and kilometres) spent travelling to retrieve accelerometers with little or no data from participants who do not comply.

The noted challenges highlighted some of the issues that need to be considered when conducting longitudinal studies of this nature. They are, however, not exclusive to this trial.

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