

Sending a personalised post-donation SMS to donors: Can this simple strategy improve donor engagement?

Tanya E Davison, Carley Gemelli, Sarah Kruse, Barbara Masser



The problem: Donor engagement

Why does donor engagement matter?

Blood Services benefit from a highly engaged panel of donors, who return regularly. Advantages over continually recruiting new donors:

- **Lower costs** – marketing, blood typing, health status testing.
- **Lower risk** – healthier lifestyles, lower infection risk, already tested.
- **Improved forecasting** and supply management; target key segments (O Neg, phenotyped).



The problem: Donor engagement

How are we doing?

Australian figures on return of first time blood donors (2015-16)

- 42.7% returned within 6 months
- 53.5% returned within 1 year
- 63.4% returned within 2 years

Prior experience: Higher return rates among those who had donated previously (83.2% returned within 2 years)

A quicker return of new donors may result in a donor panel that donates more often.



How do we facilitate donor engagement?

Available literature:

- Godin et al. (2012). Support for motivational interventions and reminders.
- Bagot et al. (2016). No strong effect of reminders on retention of first time donors.
- Information is limited – mostly studies of college students.
- Little research on the effectiveness of newer technologies – emails, SMS, social media.
- Blood collection agencies have increasingly used these cost-effective technologies.

Godin, G. et al. (2012). Efficacy of interventions promoting blood donation: a systematic review. *Transfusion Medicine Reviews*, 26, 224-37.

Bagot, K.L. et al. (2016). How can we improve retention of the first-time donor? A systematic review of the current evidence. *Transfusion Medicine Reviews*, 30, 81-91.



SMS

- Most people own a mobile/cell phone, and check it often. **95% text messages read** (cf only 20% of emails)
- Millennials' preferred method of notifications from businesses.
- Interventions delivered by SMS for health behaviours – increasing physical activity, weight loss, smoking cessation.
- Used to send reminders to donors about appointments, provide information on how to prepare for an upcoming donation, and to call up donors to return.



Post-donation SMS

Hi Tanya, your blood donation is at work! Your blood has gone on to save lives at Royal Melbourne Hospital today.

- Sweden, 2012
- UK, Ireland, and others?
- Trialled in Australia in April-June 2015



Study 1: Trial

- Marketing conducted a trial with successful whole blood donors in 6 donor centres in NSW, Australia.

Hi Tanya, your blood donation is at work! Your blood has gone on to save lives at [hospital] today.

Hi Tanya, your blood donation is at work! Your blood has gone on to save lives at a hospital in [town] today.

- SMS sent once the donation was dispatched to a hospital, or facility servicing multiple hospitals (M = 8.0 days, SD = 4.2)



Study 1: Trial

Replies from donors to the SMS:

I find it fantastic that you let me know this, makes it seem even more worthwhile.
Thanks

That's so rewarding!
Thank you so much!

Thank you so much..
feeling so good.

Thank you for your text! So glad that I am able to help, makes me very proud!

How wonderful.
Thank you for making me feel special x



Study 1: Trial

Q. Does the SMS impact on return behaviour?

Awesome, very glad to hear I could help! I'll definitely donate again for sure

Call me Schwarzenegger because I'll be back

- We compared return behaviour with a control group of donors (same centres, but did not receive the SMS during the trial period).
- Final sample: SMS n = 2,647; Control n = 1,796.

Gemelli et al. (2018). Evaluation of the impact of a personalized postdonation short messaging service on the retention of whole blood donors. *Transfusion*, 58(3), 701-709.



Study 1: Trial

Results

	Return by 6 months
Received SMS	50.3%
Control	44.9%

- Odds of returning to donate within 6 months were **increased by 29%** for donors who received the SMS (95% CI: 1.14-1.46).

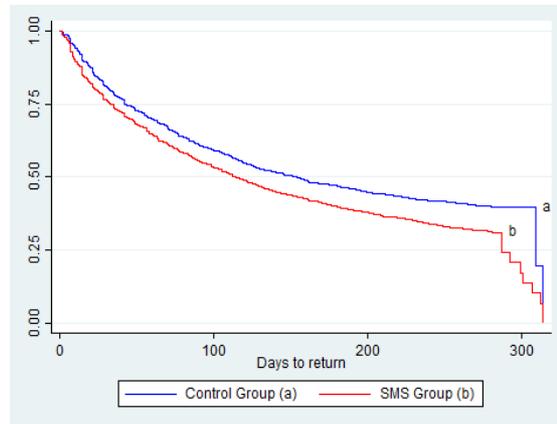
Gemelli et al. (2018). Evaluation of the impact of a personalized postdonation short messaging service on the retention of whole blood donors. *Transfusion*, 58(3), 701-709.



Study 1: Trial

Results

Time to return



- Donors who received an SMS returned to donate more quickly.
 - M = 215 days vs 229 days for control.



Study 1: Trial

Results

Does it work for all donors?

- Similar impact for men and women
- No clear effect of age
- **Level of experience:**

	Odds of returning within 6 months	95% CI
No prior donations	1.73	1.25-2.40
1-4 prior donations	1.33	1.05-1.69
5-10 prior donations	1.34	1.03-1.74
11+ prior donations	0.97	0.77-1.22

Gemelli et al. (2018). Evaluation of the impact of a personalized postdonation short messaging service on the retention of whole blood donors. *Transfusion*, 58(3), 701-709.



Study 1: Trial

- **Limitations:**

- Retrospective, matched cohort design.
- Only 6 donor centres.

Hi Tanya, your blood donation is at work! Your blood has gone on to save lives at Royal Melbourne Hospital today.

- **Why does it work?**

- Prompt to make another appointment?
- Reprime the 'warm glow' felt post-donation?
- Acknowledgement of the donation by the Blood Service? (similar to 'thank you' interventions effective in other behaviours)
- Personalised message.
- Highlights the need for blood and provides concrete evidence the individual donation was used.

Gemelli et al. (2018). Evaluation of the impact of a personalized postdonation short messaging service on the retention of whole blood donors. *Transfusion*, 58(3), 701-709.



Study 2: Routine implementation

Rolled out nationally from June 2016.

- **Personalised SMS** sent to all WB donors after donation is dispatched:

Hi Tanya, your blood donation is at work! Your blood has gone on to save lives at [hospital] today.

Hi Tanya, your blood donation is at work! Your blood has gone on to save lives at a hospital in [town] today.

- **Thank you SMS** sent to WB donors whose blood was not dispatched:

Thanks for giving blood, Tanya. Generous donors like you are life-savers for people facing serious illness and injury.

Hi Tanya, thank you for your recent donation. Your generosity means the world to people who need blood products.



Study 2: Routine implementation

Personalised SMS vs thank you SMS vs no SMS: Impact on donor return?

- Examined impact for first-time whole blood donors.
- Excluded donors whose donation experience may have been different – ie discarded due to underweight collection.

Sample:

- Personalised SMS (Mar – May 2017): n = 12,208
- Thank you SMS (Mar – May 2017): n = 989
- No SMS (Mar – May 2016): n = 13,197



Study 2: Routine implementation

Personalised SMS vs thank you SMS: Impact on donor return?

	Return by 12 months
Personalised SMS	64.9%
Thank you SMS	49.8%

- **An association between SMS type and donor return** was observed, $X^2(1) = 90.4$, $p < .001$.
- The thank you SMS performed poorly. But possible confounders?



Study 2: Routine implementation

Personalised SMS vs no SMS: Impact on donor return?

	Return by 12 months
Personalised SMS (2017)	64.9%
No SMS (2016)	61.9%

- An association between message and donor return was observed, $X^2(1) = 25.3, p < .001$.

Cox Proportional Hazards Controlling for age, gender, blood type, adverse events, deferrals, mobile vs fixed site, metro vs rural, rebooking:

- Donors who received a personalised SMS were 21% more likely to return to donate within a 12 month period (HR: 1.211, 95% CI 1.16-1.27)



Study 2: Routine implementation

Personalised SMS vs no SMS:

Donors who made a forward booking before leaving the donor centre

	Return by 12 months
Personalised SMS	85.6%
No SMS	81.3%

- Donors receiving the personalised SMS more likely to keep their appointment than were donors who didn't receive the SMS, $X^2(1) = 21.83, p < .001$.



Study 2: Routine implementation

Personalised SMS vs no SMS:

Donors with no forward booking

	Return by 12 months
Personalised SMS	57.5%
No SMS	56.3%

- Donors receiving the personalised SMS were no more likely to make an appointment than were donors who didn't receive the SMS, $X^2 = 1.78, p = .182$.



Study 2: Routine implementation –

Specific hospital vs region

Hi Tanya, your blood donation is at work! Your blood has gone on to save lives at [hospital] today.

Hi Tanya, your blood donation is at work! Your blood has gone on to save lives at a hospital in [town] today.

	Return by 12 months
Hospital	64.8%
Region	66.2%

- No sig difference in return rates, $X^2 = 0.70, p = .40$.
- **Impact of blood dispatched to donor's own area?**



Summary

- **An SMS informing donors where their blood was sent appears to have improved return of first-time and novice donors.**
 - More likely to return and return more quickly.
 - Suitable for all age groups, men and women.
 - No impact on experienced donors (> 10 donations).
- In comparison, a 'thank you' SMS does not appear to substantially improve return of first time donors. **The type of message matters.**
- **Impact on donors who had already booked a return appointment at the donor centre** (cf those with no appointment).
- **Appears to be driving engagement (donors' keeping their appointment), rather than acting as a prompt to book another appointment or simply acknowledging the donor's contribution.**



Discussion

- Clear evidence that their individual donation **was actually used** appears to be important:

...so you know, "Oh yeah, sweet, I know it is getting used and not just getting discarded"

It was ... a nice reminder that what you did actually had an outcome rather than the blood ending up in a fridge and never seen or heard of again



Limitations

Problematic comparisons

- **Trial** – retrospectively matched control.
- **Implementation** – compared to (i) same time point the previous year (no SMS), and (ii) a small sample of donors whose blood was not dispatched (thank you SMS).
- **Need to be cautious** regarding the findings.
- **Requires confirmation** from other studies, ideally randomised controlled trials, tracking outcomes over the longer-term.



Recommendation

Test all new initiatives using a clinical trials design, prior to widespread implementation

- Enable us to be confident on the effect expected.
- **Identify any risks (interventions don't always work as expected).**
- Clarify the underlying mechanisms – learn from these experiences and refine/develop new approaches.



Thank you

Australian governments fully fund the Australian Red Cross Blood Service for the provision of blood, blood products, and services to the Australian community

