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## FIRST BLOOD: OVERCOMING DONOR ANXIETY

**First-time blood donors don't always make it from booking an appointment to actually showing up. To improve attendance, a UQ researcher has continued a 15-year collaboration with the Australian Red Cross Blood Service to allay donors' fears and bolster attendance rates.**

**It seems like a great idea at the time you book the appointment. Endure a small sting in your arm, relax for half an hour in a comfy chair, enjoy free food, and then walk away feeling good about improving – or even saving – someone else's life.**

Donating blood is one of the easiest and cheapest forms of altruism possible, so unless you have a pre-existing condition that excludes you from donating, it seems like a no-brainer – which is why around 600,000 Australians do it every year.

However, agreeing to donate can sometimes be only the first hurdle, as UQ School of Psychology's Associate Professor Barbara Masser discovered in a recent study, the latest in a 15-year collaboration with the Australian Red Cross Blood Service.

In 2015, the Blood Service approached Associate Professor Masser to work with them on a first-time donor campaign, after noticing a concerning statistic – over 18 per cent of first-time donors simply did not show up. At some stage between making an appointment to donate and their allotted time, they had decided not to attend. Of course, missing out on their donation means the anticipated donated blood can't be put to good use, but the loss compounds when the time and resources that could have been allocated to another donor in that session aren't utilised.

"I suspected that fear of the unknown might be the main cause of absenteeism," says Associate Professor Barbara Masser.

"At some stage between deciding in a cold, rational state that donating was the right thing to do, in the days or weeks before their

appointments these donors moved to a more emotionally driven 'hot' state, possibly due to anxiety, rationalising excuses such as 'I'm too busy' or 'I don't have to do this – if I don't, it doesn't really matter'.

"If you think of somewhere you've just gone for the first time, usually you'll feel some level of anxiety about going there, which is heightened when things like needles and medical equipment are involved.

"However, if someone gave you a 'script' beforehand that prepared you for what you'd see, experience, and have to do, you'd immediately feel more in control and confident.

"So, our aim was to give people a script for what happens at their first donation, and to see if we could improve the statistics."

This approach drew on part of the Transtheoretical Model of Health Behaviour Change, published by Prochaska and DiClemente in 1983. This model posits that health behaviour change happens by progressing through six stages of change: precontemplation, contemplation, preparation, action, maintenance and termination. In the case of potential blood donors, the action step required them to actually attend and complete their first appointment; however, translating their preparation of making an appointment into action was missing, causing a higher dropout rate than anticipated.

"We thought that people who made an appointment were obviously prepared to act, but they needed to translate that into action. One of the things that can help that translation is talking through what's going on as you move between those stages," Associate Professor Masser says.

Associate Professor Masser worked closely with the Blood Service marketing and research and development teams to create a suite of

communications that could assist first-time donors to cope with what would happen during their donation.

In a three-by-two factorial study, 3646 donors were randomly allocated to receive some combination of communication – they either received a printed or digital brochure a few days prior to their appointment, or no brochure. Then, they either got a confirmation call from the National Call Centre, or no call.

The Blood Service communications reaffirmed donors' commitment to donate, as well as bolstering their self-efficacy – their confidence to go through with it – by explaining the structure of a donation appointment, preparing them for what to expect, and alerting them to possible reactions and how to handle them. For example, donors were reassured that feeling faint or anxious is normal, and that they should use methods such as applied muscle tension or checking their phone to distract themselves.

As part of the study, call-centre teams were asked to work to a specially designed script using more leading questions that acknowledged that first-time donors can feel uneasy before their first donation, and asking these would-be donors directly how they felt about their appointment. This approach yielded engagement from the would-be donors and provided the Blood Service with the opportunity to dispel fears and reduce anxiety leading up to the appointments.

Results were very promising. Although attendance rates were a relatively high 85 per cent in the control group (where participants had no additional Blood Service contact at all), those who received both a digital brochure and a phone call were the most engaged, with over 92 per cent of them attending for a relative cost increase of only two per cent for recruitment materials.

For a refocusing of communications and relatively small investment, this was a significant improvement. In recognition of this, the outcomes of this study now inform the Blood Service's communications strategy, which has been in place for almost a year.

Blood Service Director of Research and Development, Professor David Irving, says that the outcomes from this research are of tremendous value to them.

"Using the tools developed from these research findings provides us with more certainty that donors will follow up on their commitment, enabling us to manage Australia's blood supply more effectively," he says.

"Innovative, leading edge research is fundamental to the success of the Blood Service."

Professor Irving also reflected on the importance of Associate Professor Masser's 15-year research collaboration with the Blood Service.

"Our engagement with Barbara and the University has grown over the years, and she is a valued participant in many of our research activities, with her strong, internationally recognised academic skill set along with a keen interest in seeing the outcomes of her research translated into practical application," he says.

"The work described in this story is just one of the collaborative research projects we are engaged in with Barbara, and I look forward to continuing to work with her and The University of Queensland.

"The outcomes of our collaborative research program will help us to engage more effectively with would-be donors and those who have already joined our dedicated donor pool."

### **A broader perspective on life-giving philanthropy**

As a social scientist, Associate Professor Masser brings a unique perspective to the Blood Service's operations, and is thoroughly embedded in all research that impacts donors, meaning she can link together different campaigns and initiatives and increase the depth of research possible. This offers many benefits for her research and teaching, including access to 'real world' settings and participants for studies, and opportunities for her postgraduate students to engage with industry on active projects prior to graduation.

This strong engagement with the not-for-profit sector is also a fantastic platform to further blood donor research studies internationally. As the first social scientist to be elected as an associate scientist on the Biomedical Excellence for Safer Transfusion (BEST) Collaborative – a major international collaboration involving researchers from all the key global blood agencies – Associate Professor Masser has given multiple presentations at international conferences about research findings and best practice in plasma and blood donor recruitment and retention, to help further the discipline internationally.

So where to from here?

Associate Professor Masser sees the ongoing collaboration with the Blood Service as a valuable platform to collaborate with researchers working in similar environments in other forms of living bodily donation – such as stem cells, eggs, plasma, organs, breast milk and bone marrow, to name a few – to further all fields through sharing research outcomes and knowledge.

"This area represents a true integration of basic and applied science. I deal a lot with blood donors, whom we know are different from people who donate time or money, but my vision is to start the conversation with world-leading researchers in other areas where people donate parts of themselves to improve the lives of others," Associate Professor Masser says.

**"There will obviously be some differences in motivation and approach, but by breaking down our silos and combining resources we could significantly build our collective capacity to uncover some fascinating insights and optimise processes of donor recruitment and retention."**

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### **Contact details:**

**Associate Professor Barbara Masser,**

School of Psychology

Email: [b.massar@uq.edu.au](mailto:b.massar@uq.edu.au)

Phone: +61 7 3365 6373

Web: [psy.uq.edu.au](http://psy.uq.edu.au)

Twitter: [@barbaramasser](https://twitter.com/barbaramasser)

### **Progress to date:**

**2002:** Associate Professor Masser's first collaboration with the Australian Red Cross Blood Service (Blood Service), considering perceptions of donors who receive a Biological False Reactive notification

**2003:** Science at LunchTime (SALT) presentation at the (then) Blood Services headquarters in Queen Street, Brisbane

**2004:** ARC Linkage grant funding awarded (with the Blood Service): 'Recruiting and retaining Australian blood donors: A social-psychological analysis of the role of attitude, identity, and norms'

**2006:** Internal funding from the Blood Service for 'Understanding the reactions of blood donors and recipients to an avian influenza pandemic'

**2007:** Invited presentation at the HAA 2007 Annual Scientific Meeting (joint scientific meeting of the Haematology Society of Australia and New Zealand, the Australian and New Zealand Society of Blood Transfusion and the Australasian Society of Thrombosis and Haemostasis)

**2009:** Following FirstLink funding from UQ, submission of a successful ARC Linkage grant application with the Blood Service, titled: 'The initiation and maintenance of plasma and platelet donation in Australia: An analysis of the role of donor identity and commitment', which led to publications that laid the groundwork for blood collection agencies around the world that were trying to increase the recruitment and retention of voluntary, non-remunerated plasmapheresis donors

**2010:** *Transfusion and Apheresis Science* publication with Professor Christopher France of Ohio University, which detailed an initial exploration in Australia as to whether modified blood donation brochures could assist in donor recruitment, as well as internal funding from the Blood Service for 'Managing vasovagal reactions among young first-time blood donors', which led to involvement in later research considering facilitating donor compliance with strategies to prevent vasovagal reactions led by A Thijsen (Blood Service) and a 2017 *Transfusion* paper

**2011:** Initial exploration of whether blood donation paraphernalia could, in and of itself, provoke anxiety and a lowered intention to donate blood with honours student, Rebekah Clowes

**2012:** Building on earlier work that explored the impact of modified donor brochures and anxiety provoked by blood donation paraphernalia, Associate Professor Masser awarded internal funding from the Blood Service for 'Overcoming the impact of situationally induced anxiety' (with C France and M Hyde)

**2013:** ARC Linkage grant funding for 'The emotional psychology of blood donors: understanding and using the affective key to return'

**2014:** Associate Professor Masser invited by the National Marketing and Community Relations Director at the Blood Service to collaborate on a review of, and research on, the design of the Donor Mobile Units (based on the results of the 2011 situationally induced anxiety project) – the outside design of the Donor Mobile Units was subsequently changed

**2014:** Plenary address at the 33rd International Congress of the International Society for Blood Transfusion in Seoul, Korea titled 'Plasmapheresis: Recruitment, retention, and the flexible donor'

**2015:** Associate Professor Masser appointed as a member of the International Society for Blood Transfusion working party on donors and donations, and also appointed as an Associate Scientist to the Biomedical Excellence in Safer Transfusion (BEST) international research collaborative – a unique, freestanding group of approximately 120 manufacturers, clinicians and scientists from 20 countries committed to improving transfusion practice through international studies

**2016:** Invited to present at the 39th International Congress of the International Society of Blood Transfusion (ISBT) in Dubai in September 2016: 'How can we encourage our voluntary non-remunerated donors to donate more frequently' (with T Davison and C Chapman), and research undertaken with the Blood Service's marketing division was published in *Transfusion*: 'Improving first-time donor attendance rates through the use of enhanced donor preparation materials'

**2017:** Associate Professor Masser increased from 20 per cent to 50 per cent secondment as a visiting Principal Research Fellow to the Donor Research R&D team at the Blood Service, and invited to speak at the 27th ISBT Regional Conference as well as being appointed to the Scientific Advisory Board for the 3rd European Conference on Donor Health and Management (to be held in Copenhagen in September 2018)