

Painless blood test to improve blood donation experience

Abstract:

Background: Fear of blood donation is implicated in vasovagal reactions, donor recruitment, and retention. This study examined the extent to which fear among donors is associated with various donor outcomes in an Australian sample, and whether fear can be addressed on-site to reduce adverse reactions and improve the donation experience.

Study design and methods: Six hundred and sixty-four donors (age $M = 33.4$, $SD = 12.7$; 55% female) participated in a two-center, pragmatic, parallel group, individually randomized controlled trial. Following donor registration and consent, whole-blood ($n = 539$) and plasma ($n = 125$) donors were assigned to one of four Conditions: control; fear assessment; fear assessment + brochure; fear assessment + brochure + tailored conversation focused on any self-reported fear and coping strategies. Post-donation questionnaires assessed the donors' experience including positive support, donor self-efficacy, anxiety, fear, venipuncture pain, and vasovagal reactions.

Results: Fear among donors predicted higher venipuncture pain, post-donation anxiety, and vasovagal reactions and remained significant after controlling for other established predictors (i.e., total estimated blood volume, age, sex, and donation experience). Mediation analyses showed that exposure to brochures (with or without the tailored conversation) was associated with less pain, with this effect mediated by donor perceptions of more positive support. Venipuncture pain was also associated with vasovagal reactions, reduced likelihood of return within 6 months, and less satisfaction with the donation experience.

Conclusion: The current results underline the importance of interventions to address fear among both whole-blood and plasma donors to secure the safety and well-being of donors and the blood supply.

Reference:

Gilchrist PT, Thijsen A, Masser BM, France CR, Davison TE. Improving the donation experience and reducing venipuncture pain by addressing fears among whole-blood and plasma donors. *Transfusion*. 2021 Apr 26. doi: 10.1111/trf.16407. Epub ahead of print. PMID: 33904178.



Comments from IVTEAM

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Painless blood test to improve blood donation experience should be focussed on reducing fear of the venipuncture procedure during donation. If facilities do not address this issue they are likely to continue to see vasovagal reactions and donors are unlikely to return.

Various approaches to painless phlebotomy can be implemented. One example is the use of 'cough-trick' which you can read about [here](#).