

University of Vermont

UVM ScholarWorks

Public Health Projects, 2008-present

Public Health Projects, University of Vermont
College of Medicine

2021

Motivators for Convalescent Plasma Donors during the COVID-19 Pandemic

Betsy Assoumou
University of Vermont

Natalie J. Bales
The University of Vermont

Amy K. Chang
University of Vermont

Hannah K. Cook
UVM Larner College of Medicine

Kiana Heredia
University of Vermont

See next page for additional authors

Follow this and additional works at: https://scholarworks.uvm.edu/comphp_gallery



Part of the [Community Health and Preventive Medicine Commons](#), and the [Health Services Research Commons](#)

Recommended Citation

Assoumou, Betsy; Bales, Natalie J.; Chang, Amy K.; Cook, Hannah K.; Heredia, Kiana; and Fischer, Colby J., "Motivators for Convalescent Plasma Donors during the COVID-19 Pandemic" (2021). *Public Health Projects, 2008-present*. 317.

https://scholarworks.uvm.edu/comphp_gallery/317

This Book is brought to you for free and open access by the Public Health Projects, University of Vermont College of Medicine at UVM ScholarWorks. It has been accepted for inclusion in Public Health Projects, 2008-present by an authorized administrator of UVM ScholarWorks. For more information, please contact schwks@uvm.edu.

Authors

Betsy Assoumou, Natalie J. Bales, Amy K. Chang, Hannah K. Cook, Kiana Heredia, and Colby J. Fischer

Introduction

- This study will seek to explore the motivators for convalescent plasma donors during the COVID-19 pandemic.
- In 2020, the global pandemic caused by SARS-CoV-2 increased donations of transfusion products, particularly convalescent plasma from COVID-19 survivors that is used to provide passive antibody immunity to those infected.
- Convalescent plasma therapy has been identified as one of the only therapies for COVID-19 beyond supportive care (Rejendran et al.).
- Much of the current research focuses on the current motivators of whole blood and plasma donations, commonly citing altruistic motivations, knowing someone who has previously donated, and social media influence as common motivators for donations.
- It is important to explore not only what motivates COVID-19 survivors to initially donate plasma, but also the motivations of repeat donors. By gaining a greater understanding of what these motivators are, we may be able to convert these convalescent plasma donors to regular blood donors.

Methods

- Respondents include two groups from the American Red Cross donors: donors who were temporarily deferred for a period of 6 months from their last plasma donations and donors who indicated "Y" to Q79 on Donor History Questionnaire (DHQ), which asked if they had received a COVID-19 vaccine
- Respondents received a cover letter and an invitation to participate in an anonymous 18-question survey via email—hosted on the Survey Monkey platform. The questions included: multiple choice, check-all-that-apply, and Likert scale questions
- We assessed how personal COVID-19 experience, friend and family's COVID-19 experience, social media, altruistic behavior, and previous knowledge of need for convalescent plasma influenced their motivation to donate convalescent plasma and their willingness to donate again.
- Demographic information on age, gender, race/ethnicity, and past donation history were also collected.
- Surveys were given out between 03/18/2021-03/25/2021 to 2,628 past donors. A total of 888 surveys were collected.

Data and Results

Demographics	
Variable	Value (n=885)
Age	
18-24	23 (2.6%)
25-34	105 (11.9%)
35-44	114 (12.9%)
45-54	182 (20.6%)
55-64	284 (32.1%)
65 and over	170 (19.2%)
Gender	
Male	442 (49.9%)
Female	436 (49.3.0%)
Prefer not to answer	2 (0.23%)
Donor Status Since January 2018	
Regular Whole Blood Donor	216 (24.4%)
Regular Apheresis Plasma or Platelet Donor	189 (21.4%)
Occasionally or in the remote past	228 (25.8%)
New	246 (27.8%)
Declined to Answer	6 (0.6%)
Race	
White	808 (91.3%)
Black or African American	11 (1.2%)
Hispanic, Latino, or Spanish	32 (3.6%)
American Indian and Alaska Native	11 (1.2%)
Asian	20 (2.3%)
Native Hawaiian or other Pacific Islander	6 (0.7%)
Other	11 (1.2%)

*21 respondents indicated one or more race.

*Age 1 prefer not to answer.

Greatest Motivators for Donating Convalescent Plasma

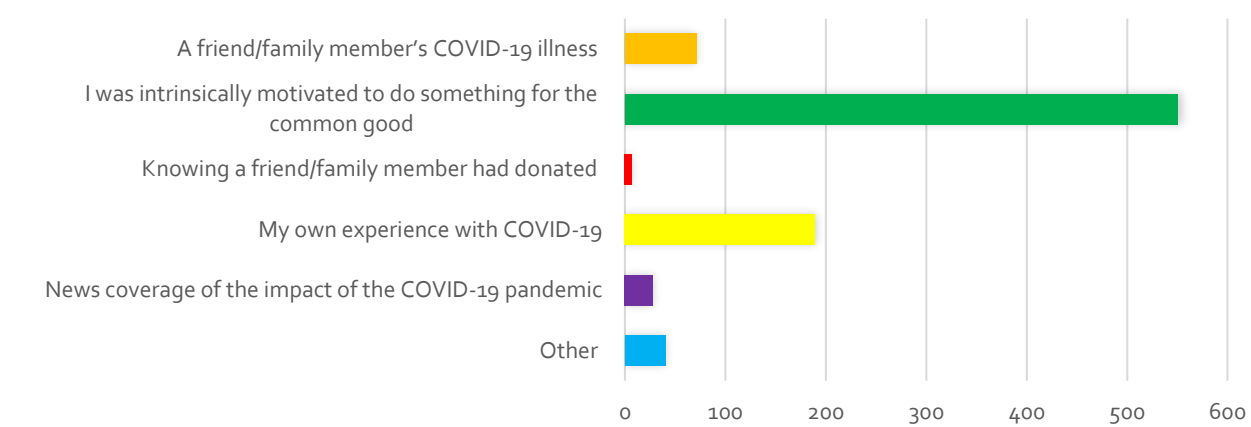


Figure 1: This figure demonstrates the motivating factors for both vaccinated and unvaccinated individuals. The overall trend shows the majority of donors to be intrinsically motivated to do something for the common good, followed by their own experience with COVID-19.

Greatest Motivators by Donor Status

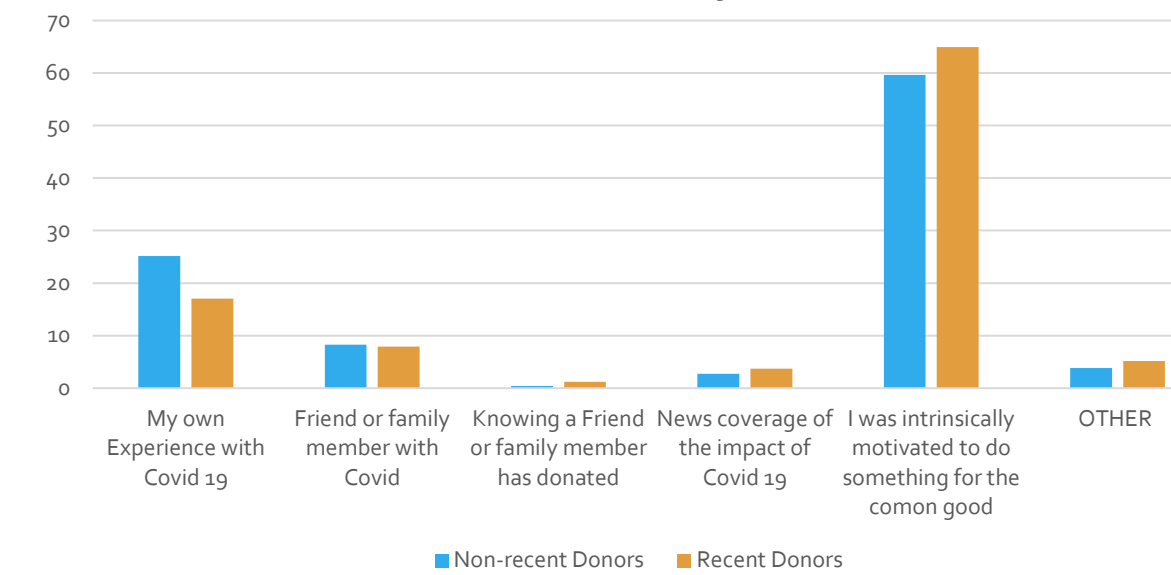


Figure 2: The most important motivators to donate convalescent plasma by recent donors and non-recent donors. Non-recent donors were more likely to list their "my own experience with COVID-19" as their next strongest motivator after intrinsic motivation.

Likelihood of Donating Based on Symptom Severity

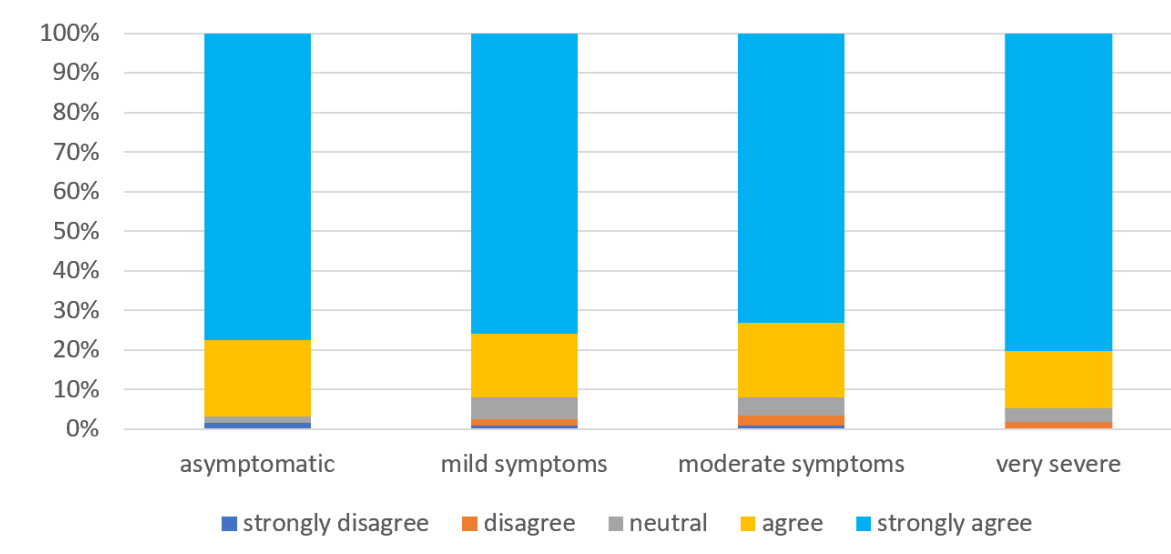


Figure 3: This figure outlines the likelihood of donations based on symptoms severity for both vaccinated and unvaccinated CCP donors. Most donors strongly agreed that their reason to donate was driven by their symptom severity. A result of strongly agree indicates the donor strongly agreed that their reason to donate was due to severity of symptoms versus a strongly disagree yields a reason to donate was not due to symptom severity.

Plasma Donors by Age and Gender

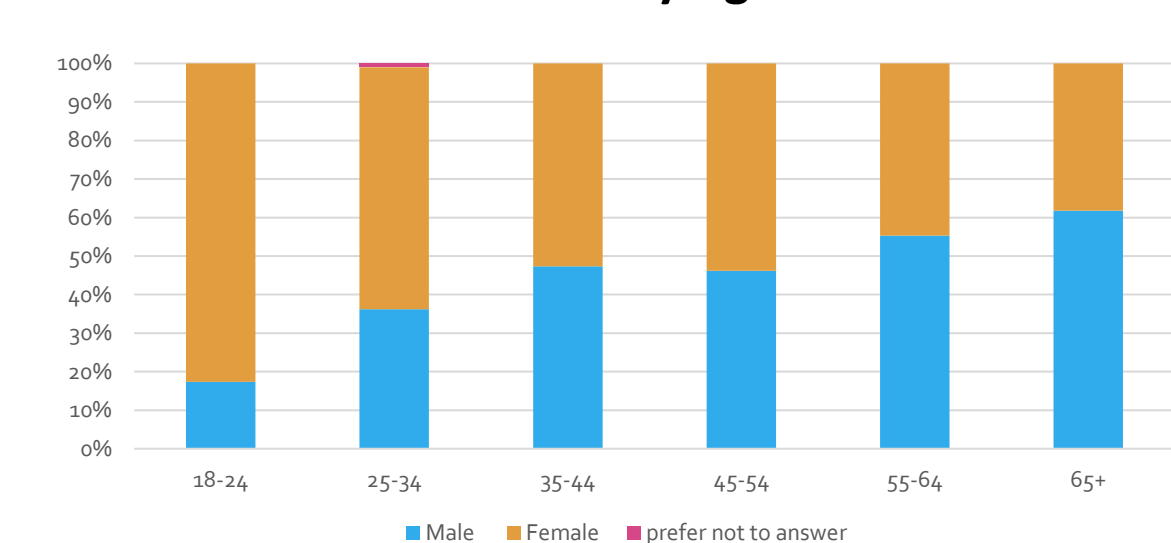


Figure 4: This graph shows the age and gender demographics of the vaccinated and unvaccinated plasma donors. The highest category of donors were in the 55-64 year old category, with primarily male donors. Female donors outnumbered male donors under 55 years of age and male donors outnumbered female donors above the age of 55.

Discussion and Conclusion

- The strongest motivators did not vary among age groups. These results are like those found by UK researchers (Masser 2020)
- Older donors were more likely to have severe illness and were more likely to donate as a result of their own experience with COVID-19.
- Factors such as age and severity of COVID-19 illness positively correlated with greater antibody responses (Del Fante 2021). This means that targeting first time donors with severe illness may prove to be a highly effective way to optimize the effectiveness of convalescent plasma donors during a pandemic.
- Our study found that the majority of donors were women, who also exhibited more favorable opinions of convalescent plasma donation than men, which is not often the case (Perenc 2021).
- This study is limited in that the sample profile of respondents predominantly consists of those who identify as non-Latino, white (91.35%), which does not accurately reflect the demographics of the U.S.. Second, all respondents were those who tested positive for COVID-19 and donated convalescent plasma during the pandemic. Finally, all data was collected from a self-reported survey,
- Our study was the first to look at different motivators for convalescent plasma donations during the COVID-19 pandemic. Those who donated convalescent plasma for the first-time during the COVID-19 pandemic had a higher severity of illness compared to regular, repeat donors

Acknowledgements

- American Red Cross
- Thomas Delaney, PhD, University of Vermont

References

- Rajendran, Karthick, et al. (2020). "Convalescent Plasma Transfusion for the Treatment of COVID-19: Systematic Review." *Journal of Medical Virology*, 92(9): 1475–1483.
- Masser, Barbara M, et al. (2020). "Motivators of and Barriers to Becoming a COVID-19 Convalescent Plasma Donor: A Survey Study." *Transfusion Medicine* (in press). doi: 10.1111/tme.12753. Online ahead of print 2020 Dec 27.
- Del Fante, Claudia, et al. (2021). "A Retrospective Study Assessing the Characteristics of COVID-19 Convalescent Plasma Donors and Donations." *Transfusion* 61(3): 830–838.
- Perenc, Lidia, Pęczkowski, Ryszard (2021). "Knowledge and Attitudes of Young Adults Towards Donation of COVID-19 Convalescent Plasma and Its Therapeutic Properties." *Research Square*, (preprint, not yet reviewed), <https://doi.org/10.21203/rs.3.rs-286651/v1> (accessed:16 March 2021).