

The Impact of Social Media Intervention Based on Functional Motivation on Repeat Blood Donation Behavior: A Prospective Randomized Controlled Trial Study

Xiaofang Mao¹, Chang Gao², Jian Shao^{1,*}

¹Blood Collection and Processing Department, Changshu Blood Center, Suzhou, China

²Second Clinical Medical College, Nanjing Medical University, Nanjing, China

Email address:

1975480691@qq.com (Chang Gao), csjksj@126.com (Jian Shao)

Abstract

Background: Blood plays an irreplaceable role in medical care. Low retention rate among blood donors is the major issue in China. Various functional motivations can encourage blood donors to participate in blood donation. Therefore, it is necessary to conduct researches on re-donate behavior based on functional motivations. This study aimed to evaluate the impact of social media intervention based on functional motivation, to discover effective intervention methods to improve re-donate rate among nonregular blood donors. **Methods:** In 2022-2023, 726 adults aged 18-55 years were randomized into the intervention or control group. Over 6 months, the intervention group received science popularization via social media. After the follow-up period, re-donate rate and functional motivation were assessed. Statistical analyses included t-test, chi-square test, logistic regression analysis, and analysis of variance. **Results:** 568 completed the intervention survey. Overall, the repeat blood donation rate in the intervention group (18.1%) was significantly higher than the control group (4.2%) ($P < .001$). After the intervention, understanding, protection, sensation, and values motivation increased ($P < .001$). The changes in functional motivations vary across different age groups. In the 18-30 age group, understanding motivation increased ($P < .001$), while in the 31-45 and 46-55 age groups, protection motivation increased ($P < .001$). In the groups donating blood 3 time and 4 time, protection motivation increased ($P < .05$), and in the group donating blood 4 time, the values motivation increased ($P < .05$). **Conclusion:** Social media intervention based on functional motivation can effectively increase the re-donate rate. Understanding, protection, sensation, and values motivations can directly influence the re-donate behavior.

Keywords

Functional Motivation, Repeat Blood Donation, Intervention, Randomized Controlled Trial, Social Media

Funding

The project was supported by Smart Healthcare Industrial School, Nanjing Medical University; Jiangsu Students Platform for innovation and entrepreneurship training program (202310312135E).