

**Title**

Research Methodology Tip - Subject Recruitment and Retention in Clinical Research:  
Leading Tips to Get It Right

**Content Contributor**

Dr Sanchalika Acharyya, Senior Epidemiologist, Clinical Research & Innovation Office

**Organisation**

Tan Tock Seng Hospital

**Healthcare Family Group**

Healthcare Administration

**Applicable Specialty or Discipline**

Clinical Research

**Content Category**

Training & Education

Learning Theories, Methodologies & Framework

**Keywords**

Research Methodology, Subject Recruitment, Retention

**Name and Email of Project Contact Person(s)**

Name: Dr Sanchalika Acharyya

Email: [CRIO\\_publication@ttsh.com.sg](mailto:CRIO_publication@ttsh.com.sg)

## Research Methodology Tip

# Subject Recruitment and Retention in Clinical Research: Leading Tips to Get It Right

Recruiting an adequate number of eligible subjects, and retaining them for the entire study duration specified in the study protocol to ensure complete data collection, is essential for the success of a clinical research study. Failing to do so leads to delays in study deadlines, methodological insufficiency to answer the research question, introduction of unanticipated bias, increased costs, and wastage of valuable resources.

Current literature suggests that well-planned patient-centered strategies which involve continuous engagement of stakeholders have the potential to address the challenges often faced during recruitment and retention. Chhatre et al (2018) developed a conceptual model comprising 4 levels of factors (patient, physician, hospital, and community) that contribute to engagement, recruitment and retention of participants in clinical trials. Trust, attitude, communication, and expectations between patients and physicians/study investigators, are the core concepts of this model (Figure 1):<sup>1</sup>

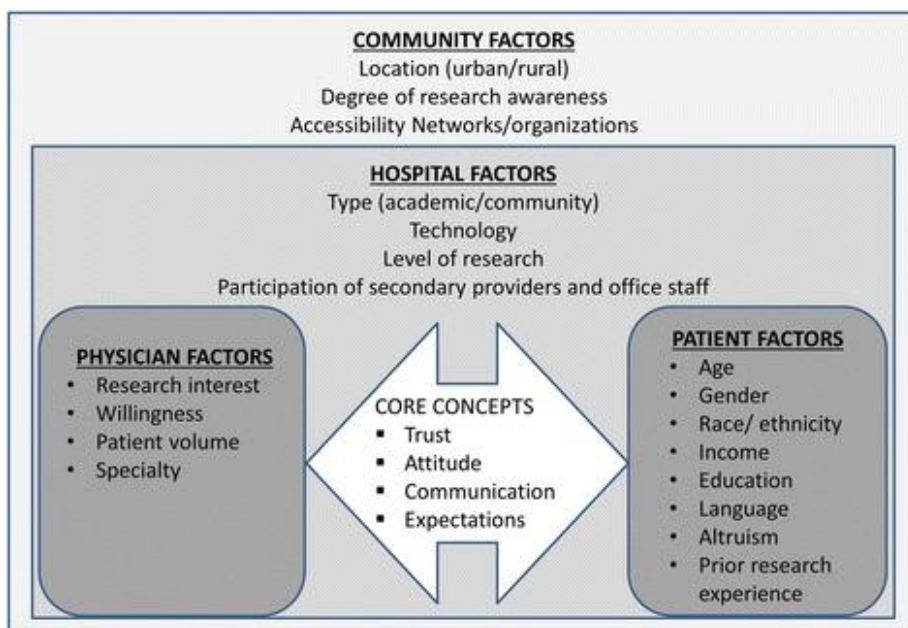
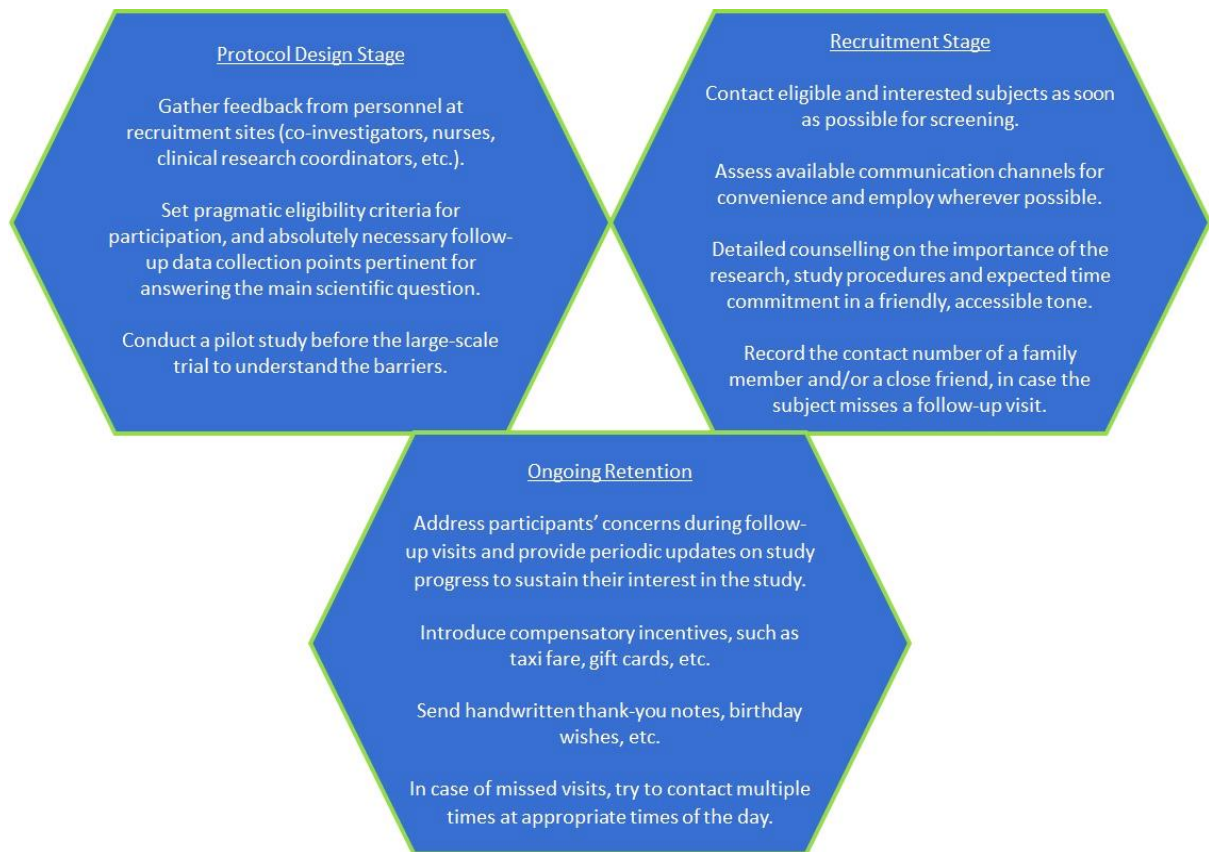


Figure 1. Conceptual model of patient-centered recruitment and retention.

This model also reinforces the idea of understanding patient-level barriers, and addressing their unique needs at the protocol development stage itself, for improved participant recruitment and retention.



**Figure 2.** Strategies for successful participant recruitment and retention.

Some key strategies for recruitment and retention of participants are highlighted above (*Figure 2*). Additionally, study operations can potentially be further improved by tapping on different channels of communication media and innovations that use artificial intelligence and machine learning techniques, especially in the current era of telemedicine and virtual follow-up.<sup>2,3</sup> In any study, recruitment and retention are ongoing processes; the strategies for these should be revisited from time to time. In case of delays in recruitment or higher-than-anticipated drop-out rates, the strategies should be reviewed and amended to rectify the problems.

*Contributed by:*

**Dr Sanchalika Acharyya**

(Senior Epidemiologist, CRIO)

### Resources

1. Chhatre S, Jefferson A, Cook R, Meeker CR, Kim JH, Hartz KM, Wong YN, Caruso A, Newman DK, Morales KH, Jayadevappa R. Patient-centered recruitment and retention for a randomized controlled study. *Trials* **2018**; 19 (1): 205. doi: 10.1186/s13063-018-2578-7.
2. Tong SC, Tin AS, Lim JFY, Chow WL. Innovative Proven Clinical-Research Strategies for Participant Recruitment and Retention. *Proceedings of Singapore Healthcare* **2010**; 19 (1): 64-68. doi:10.1177/201010581001900109.
3. Woo M. An AI boost for clinical trials. *Nature* **2019**; 573: S100-2.