

# A Cluster-wide Approach for Enhancing Sustainable & Effective Root Cause Analysis (RCA) Capability and Capacity



Cynthia Cheong KW<sup>1</sup>, Chow Mun Hong<sup>2</sup>, Pang Nguk Lan<sup>3</sup>, Tang Joo Ying<sup>1</sup>, Anju Mary Samuel<sup>1</sup>, Zann Foo<sup>1</sup>, Tan Kok Hian<sup>1</sup>

<sup>1</sup>Institute for Patient Safety & Quality, <sup>2</sup>SingHealth Polyclinics, <sup>3</sup>KK Women's and Children's Hospital

# 1. Background

Root Cause Analysis (RCA) - a systematic approach to understanding the causes of an adverse event and identifying system flaws that can be corrected to prevent error from happening again, plays a significant role in creating a safer healthcare.

Enhancing capability by staff to perform RCA effectively facilitate organizational learning from incidents; The SingHealth Duke-NUS Institute for Patient Safety and Quality (IPSQ) serves as the domain expert for RCA for serious adverse events and facilitates RCAs that are done within the cluster. As part of a cluster-wide collaborative approach for enhancing sustainability and capacity, a harmonized curriculum guides common language, process; maintain standards as well as supports effective problem analysis and the design of effective solutions.

## 2. Aims

This poster shares how IPSQ successfully co-created a harmonized RCA curriculum with institutions RCA leads, and how the curriculum has effectively meet the learning needs of the participants from the cluster.

# 3. Methodology

Institution RCA workshops are conducted with different curriculum and training outcomes. For sustainable RCA, IPSQ adopted a collaborative approach and garnered a pool of experienced and dedicated healthcare professionals to co-create the cluster-wide RCA Workshop (see Fig.1).



Fig.1 Faculty and participants of RCA Workshop Pilot Run

The appointed inter-professional Faculty from different SingHealth institutions reviewed various teaching methods, and developed case study suitable for the different healthcare profession participants (see Fig.2 and Fig.3). Institutions can implement the standardized RCA curriculum and case study in their settings for sustainability.





Fig.3 Engaging in activity session

4. Result

The inaugural cluster-wide RCA workshop was conducted in March 2019. The overall feedback from participants for workshop assessment was optimistic, achieving an overall 98% (see Fig.4). This was in agreement with the learning objectives of the workshop whereby the participants gained new knowledge to apply in their current work. There was also good feedback on the Faculty, with 98% (see Fig.5) agreeing that the Faculty were knowledgeable and effective in teaching of RCA.

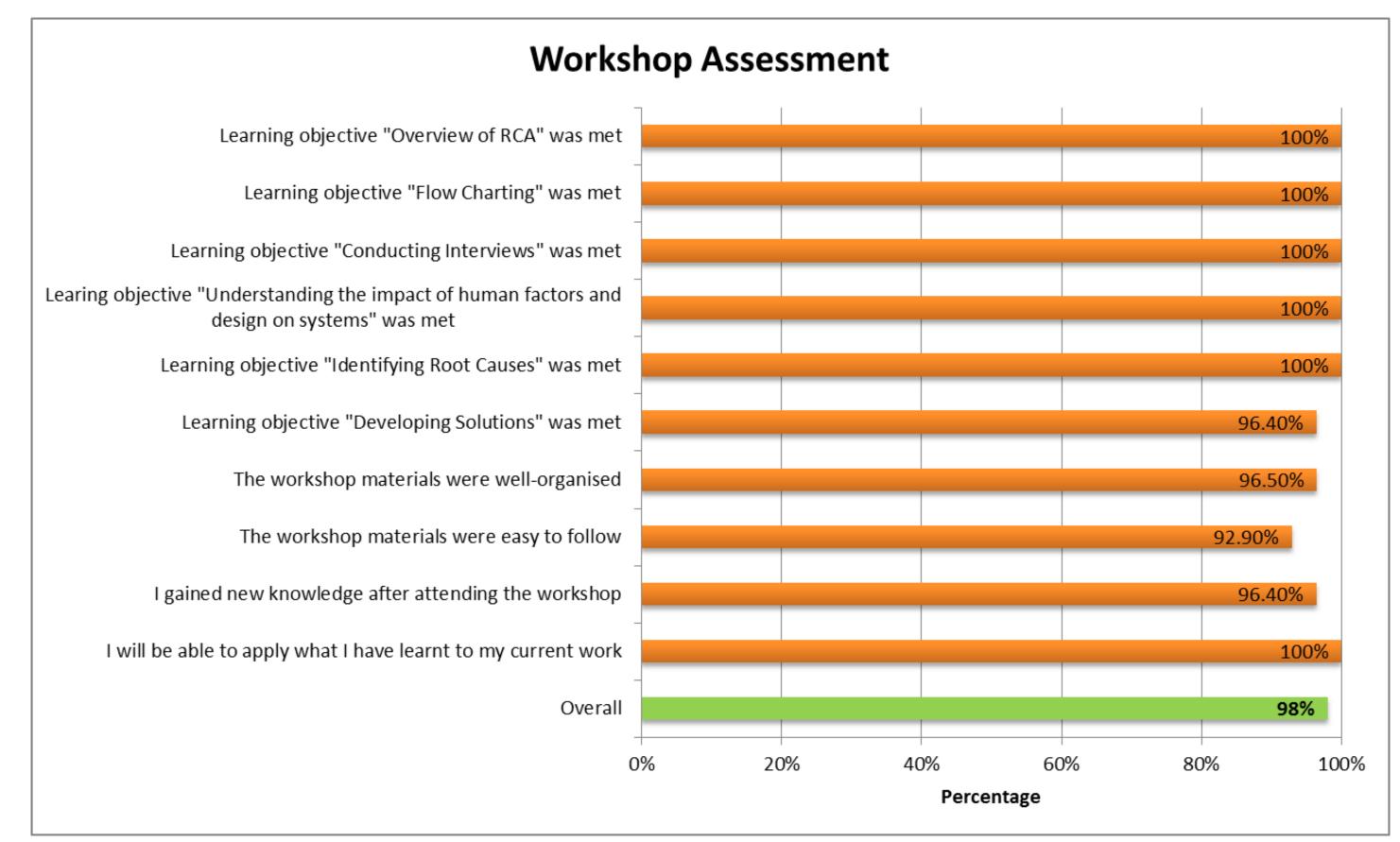


Fig.4 Percentage of participants who rated "Agree" & "Strongly Agree" for evaluation on Workshop Assessment

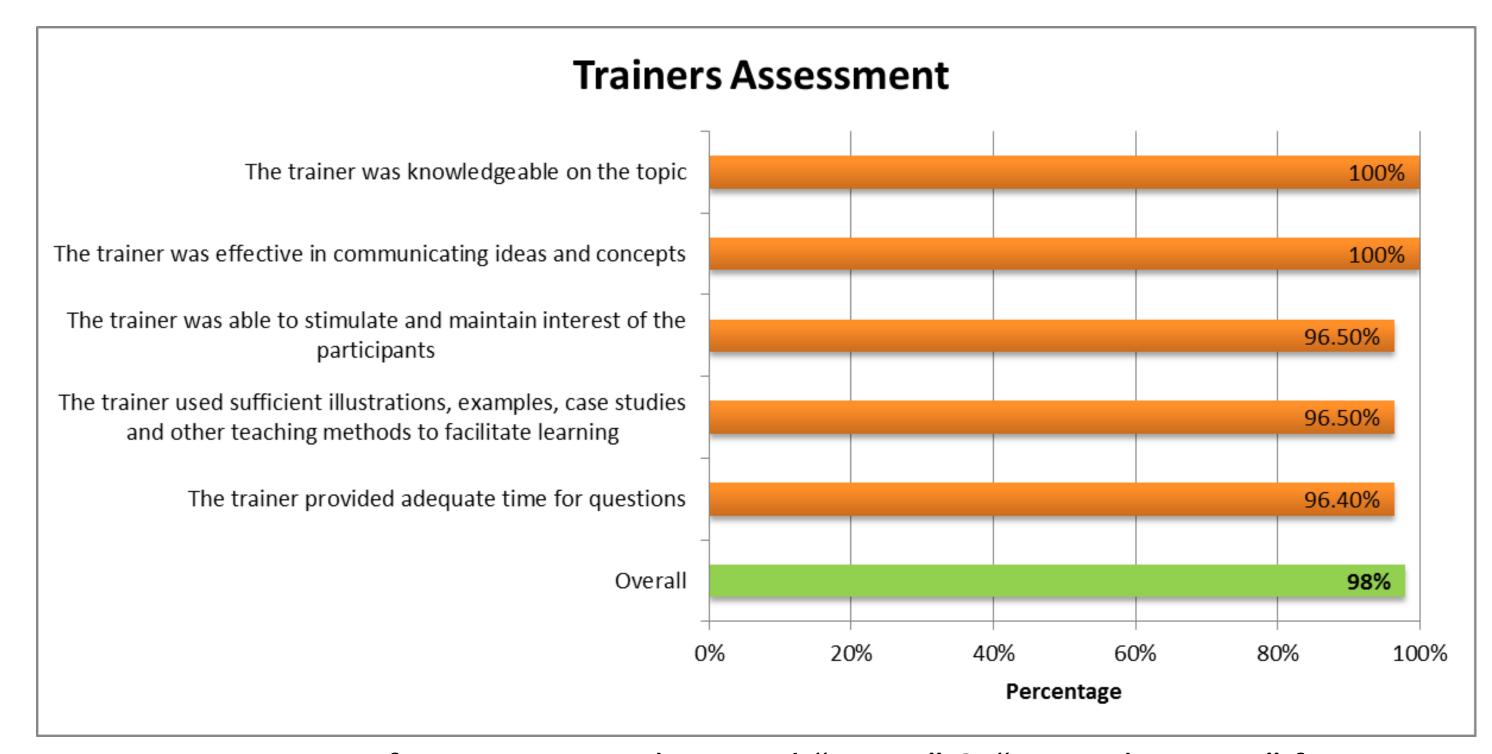


Fig.5 Percentage of participants who rated "Agree" & "Strongly Agree" for evaluation on Trainers Assessment

### 5. Conclusion

In conclusion, the pilot run of the cluster-wide RCA Workshop was wellreceived by cross-institution participants. There will be continuous collaborative efforts to review and refine the RCA content, and efforts will be expanded to include the development of a cluster-wide guideline in steering RCA. Both the harmonized guideline and training curriculum aims to standardize the RCA process and capabilities in achieving high reliability for SingHealth.





















