



Enhancing the Early Detection of Psychological Distress in Paediatric Oncology Wards: A Quality Improvement (QI) Initiative

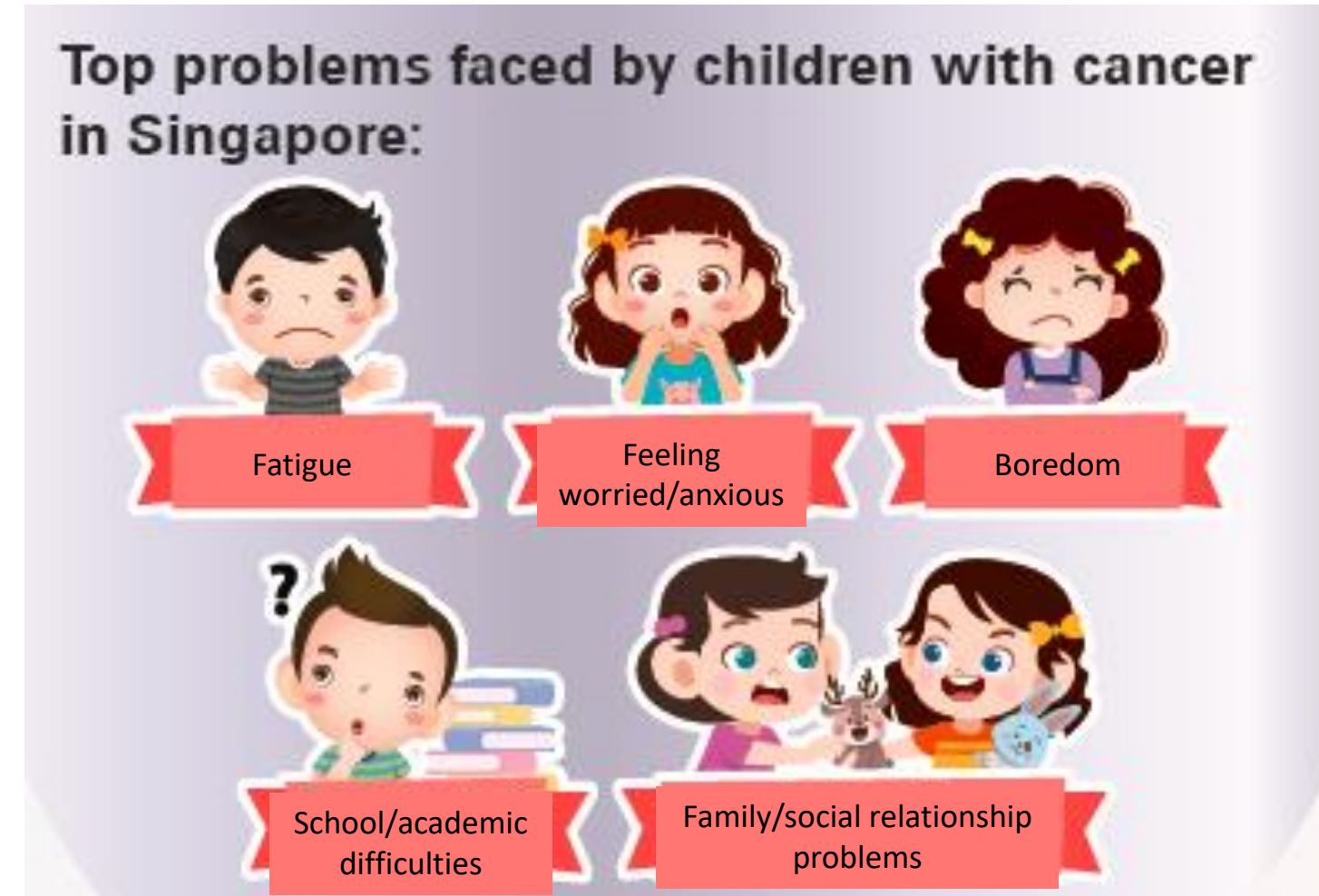
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Dr Beron Tan Wei Zhong, Clinical Psychologist
Ms Siew Jia Rong, Amanda, Clinical Coordinator
Ms Yvonne Lim Siew Ling, Nurse Clinician

Ms Tengku Shahirah Suhaila binte Tengku Mohd Yusoff, Assistant Nurse Clinician

Introduction:

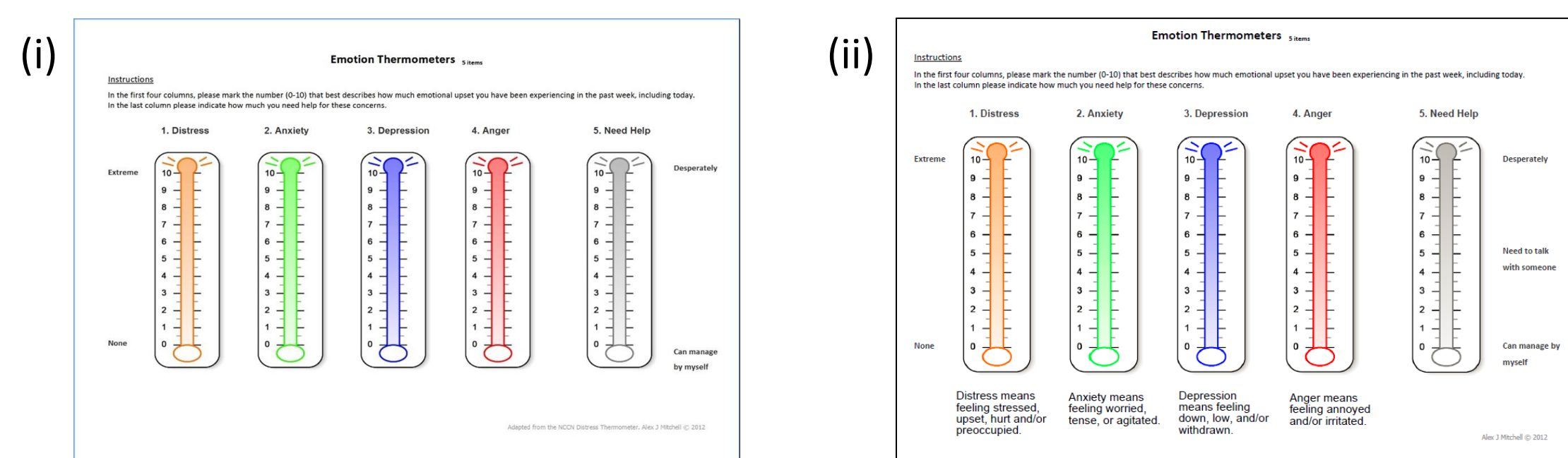
- To provide enhanced and holistic care, the KKH-Children's Cancer Foundation Psychosocial and Supportive Care Programme (KKH-CCF PSCP) was established in March 2017.
- From our previous study, it was found that children with cancer and their parents are equally at risk of emotional distress, and close to 30% of children and their parents experienced significant emotional distress during treatment.
- In another study, we looked at the effectiveness of KKH-CCF PSCP, in supporting children with cancer and their parents. Comparing a retrospective and prospective cohort, we found that parents not supported by PSCP were at a 11 times higher risk of developing distress than those who are supported by PSCP.
- Interestingly, for the paediatric population there were no clinically significant difference in their coping, regardless of whether they were enrolled into PSCP or not.
- However, on the ground, we received feedback from nurses informing that some patients were reportedly not coping well.
- This therefore prompted the team to further explore if or how to more accurately detect levels of distress in the paediatric oncology population, in a more timely fashion.
- Hence, this project aims to better detect distress earlier by introducing a nurse-administered brief mental health screening in the paediatric oncology wards.



Methodology:

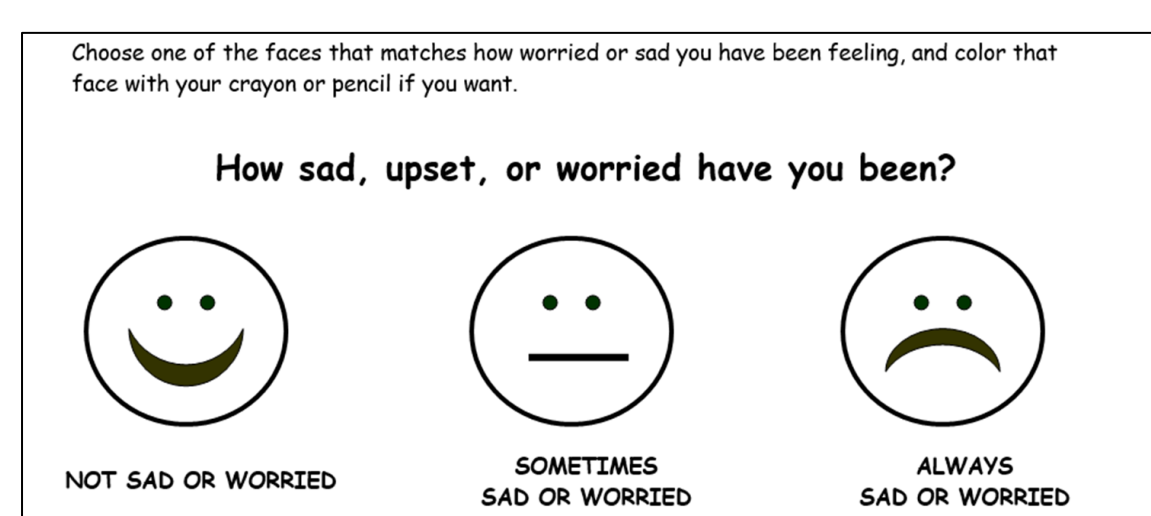
Tools used:

- (i) Emotion Thermometer (ET) (Mitchell A. J., 2012) for children aged 6 and above.
- (ii) Emotion Thermometer (ET) with descriptors (Mitchell A. J., 2012) for children aged 6 and above.

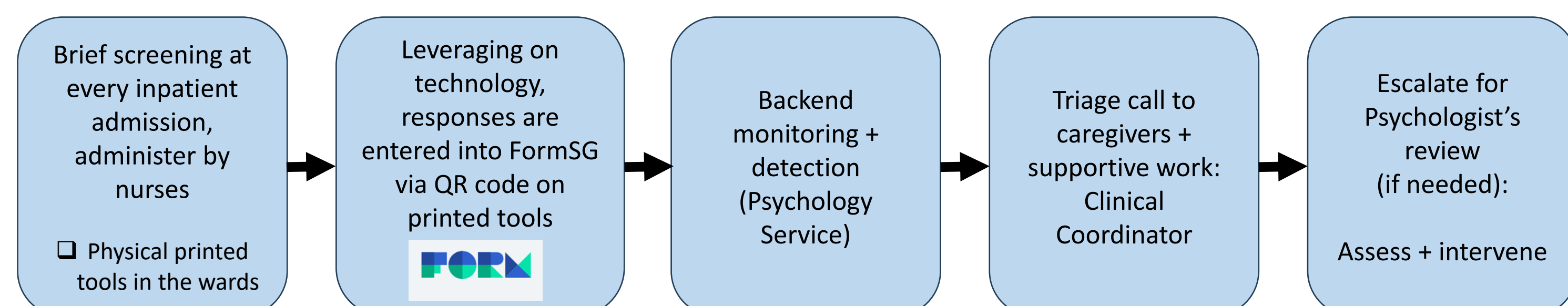


- The ET is a simple rapid modular screening tool, with a visual analogue scale ranging from least to most (0 to 10).
- > 30 published studies. Most validation studies are in the Oncology and Pain literatures.
- Acts as a generic screening tool that tells us if further testing/intervention is needed.
- Not meant to be a diagnostic tool.

- Simple Visual Analogue for children aged 5 and below, or those who had difficulties rating the ET.

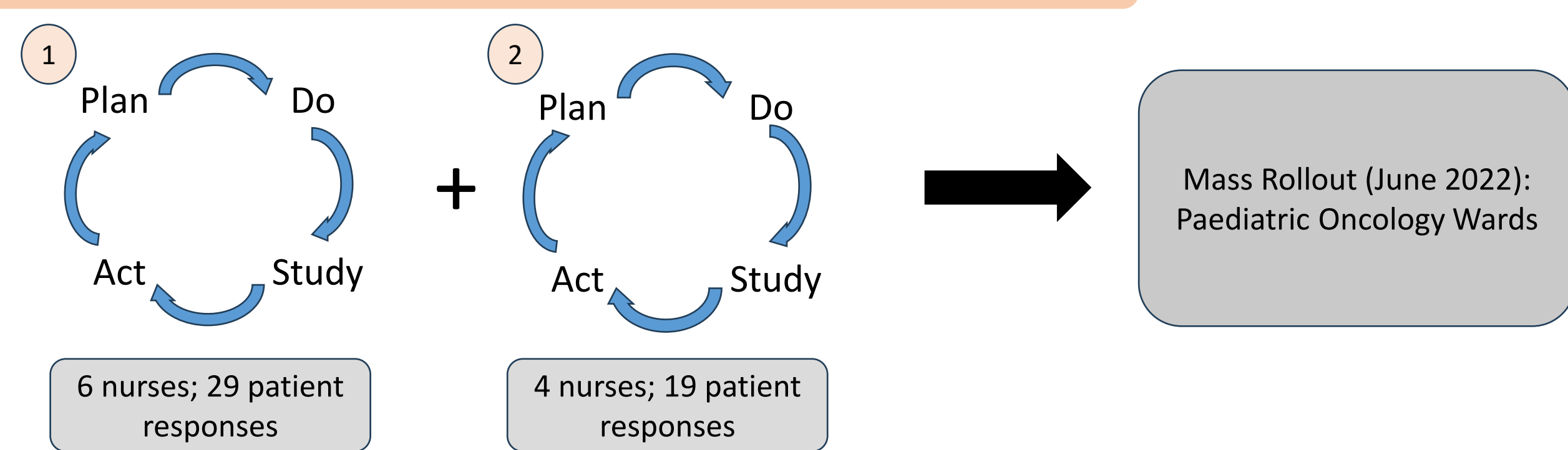


Process (Overview):



- This project introduced a blanket screening for paediatric oncology patient admitted at KKH.
- This bypasses the need for doctors/nurses to raise any referral → reducing the workload of staff and proving timelier follow-up for patients.
- Note that this process does not replace the existing routine psychology screening, as part of the KKH-Children's Cancer Foundation Psychosocial and Supportive Care Programme (KKH-CCF PSCP)

Process – Plan-Do-Study-Act (PDSA) Cycles:



- Conducted two PDSA cycle and collected pre-post staff evaluation survey for both cycles.

Staff feedbacks from first PDSA cycle	Improvements made for the second PDSA cycle and for Mass Rollout
Lack of explanation of the different types of emotions for the ET used for children aged 6 and above.	✓ Provided standard explanation and change the physical ET tool from with (a)(i) to (a)(ii).
Unable to indicate/enter a response for patients who do not want to answer.	✓ Improved the respective online forms (on FormSG) with an option for recording those who did not wish to answer during the screening. <input type="checkbox"/> Option rating 11 for (a), aged 6 and above <input type="checkbox"/> "Others" option for (b), aged 5 and below

Statistical Analyses + Outcome measures:

- Feasibility (Staff Evaluation Form)
 - Ease-of-use, administration time, impact on nursing workload, usefulness, nurse-patient rapport, and empowerment of nurses, etc.
 - Quantitative (7-point Likert scale) + Qualitative responses.
 - Analysis: % and Glass Δ (effect size measure).
- Detection rate
 - Patients with elevated screening scores.
 - Analysis: % and relative risks.

Results:

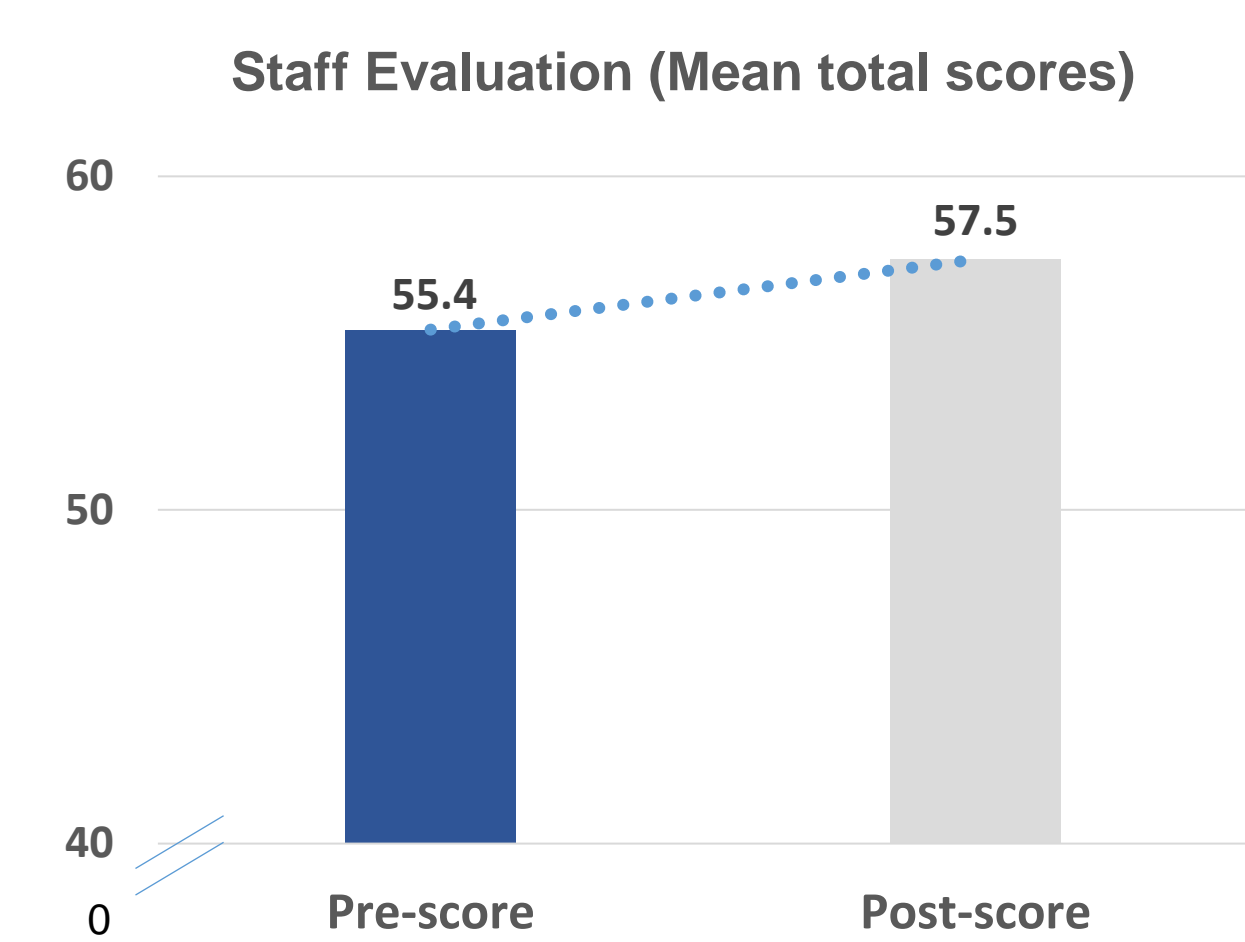
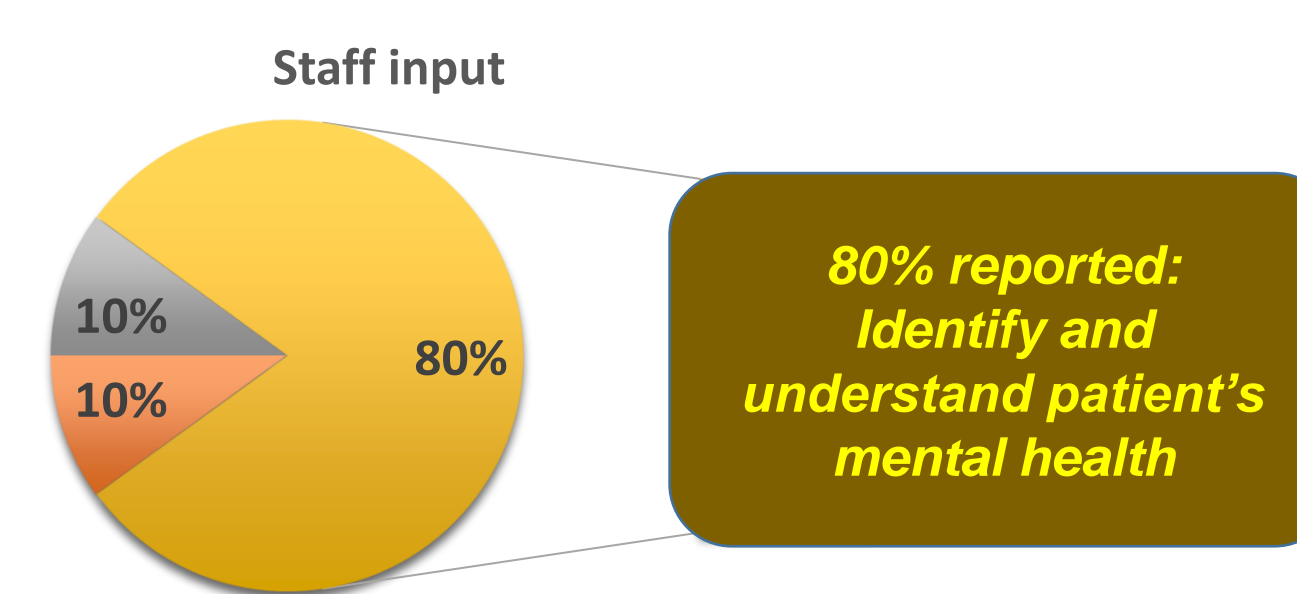
Feasibility (Staff Evaluation Form):

Quantitative responses (N = 10)

- Graph: Pooled pre- and post evaluation total scores
 ➢ Max possible score: 63
- Glass Δ = 0.33 (small-moderate effect size)

Qualitative responses (N = 10)

- What do you think is the most useful aspect(s) of using this tool in the ward?



Detection rate:

A) Emotion Thermometers	Cycle 1 (n = 23)	Cycle 2 (n = 12)	Relative risk
Distress	0.78	1.67	
Anxiety	0.74	1.50	
Depression	0.70	0.75	
Anger	1.04	2.42	
Needing Help	0.52	0.50	
Detection rate (elevated scores)	4/23 (17.39%)	2/12 (16.67%)	1.0
B) Simple Visual Analogue (Young patients)	Cycle 1 (n = 6)	Cycle 2 (n = 4)	Relative risk
Detection rate (Sometimes sad or worried)	3/6 (50.00%)	2/4 (50.00%)	1.0

- Note that the numbers here should be interpreted with caution as this is a pilot trial with low numbers.
- 17% is lower than what the PSCP research found with a larger numbers (around 30%) but it is consistent with the literature where the range is of 14-47%
- There is an equal likelihood of distress in both trial groups.
- The risk for distress detected by trial 1 and trial 2 are the same → both pilot groups are equally likely to detect the number of patients in distress.

Conclusion:

Outcome measures (Brief mental health screening tools)

- The Emotion Thermometer is a feasible and essential brief mental health screening tool for the paediatric oncology ward(s) in Singapore.

Clinical impact (2 folds – improving both the wellbeing of patients and staff)

- Change in clinical practice
 - Mental health screening is now part of ward routine → Empowers nurses
 - Enhanced collaboration between professions (Nurses and Psychology Service)
- Enhanced the early detection of psychological distress in children with cancer
 - Early psychological intervention → better mental health outcomes + improve treatment compliance
- "Psychological safety net"
 - Paediatric oncology patients are now routinely screened during their admission at KKH, and timely follow-up/support is in place.

References:

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