

Project Title

The effects of early screening and intervention on psychosocial outcomes in Singaporean children with cancer and their parents

Project Lead and Members

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Organisation(s) Involved

KK Women's and Children's Hospital; Children's Cancer Foundation

Project Period

Start date: Feb 2018

Completed date: Dec 2021

Aims

This study evaluated the effectiveness of early screening and intervention on psychosocial outcomes in children with cancer and their parents in Singapore.

Background

Research has indicated the need for early monitoring of psychosocial functioning in children with cancer and their parents. A comprehensive psychosocial screening programme for children with cancer in Singapore was developed.

Methods

The programme included psychosocial screenings conducted in the first year of cancer diagnosis at 0-month, and every quarter of the year. Psychological interventions were provided by clinical psychologists to children and parents who were identified as psychologically distressed through the screening protocol. This case-controlled study

prospectively recruited 61 children and their main caregiving parent into the psychosocial programme; the control group was based on 52 children and parents recruited retrospectively before the programme was implemented. Psychosocial outcomes were based on 1) psychological distress and 2) health-related quality of life (HRQoL) questionnaires collected at one year following the cancer diagnosis for both prospective and retrospective groups.

Results

There were no significant group differences in psychological distress and HRQoL in children with cancer ($p > .05$). Additionally, the HRQoL did not differ significantly for parents in both groups ($p > .05$). Nevertheless, there was a significant difference in psychological distress between parents of both groups, $\chi^2(1) = 6.73$, $p < .01$, and the effect size is moderate, Cramér's $V = .35$. Specifically, the odds of psychological distress were 11 times greater in parents from the retrospective group compared to parents in the prospective group. Indeed, 31% of the parents in the retrospective group were in psychological distress, compared to 4% of the parents in the prospective group after 1 year into the cancer diagnosis.

Lessons Learnt

- Childhood cancers and its treatment have a significant long-term negative impact on children including the physical, nutritional, cognitive and psychosocial functioning.
- The caregivers/families of children with cancer are also significantly affected, especially on their psychosocial functioning.
- Our project uncovered many psychosocial needs previously not explored in this clinical population in Singapore. These needs included but are not limited to coping with physical tiredness, worries/anxious feelings, school/academic difficulties, caregiver stress, and financial and family/social problems.
- Other challenges faced by caregivers included the affordability of holistic supportive care services, timely interventions, lack of understanding and awareness by other family members, school and larger communities about the late

effects of cancer in children, and the systemic barriers in the referral processes to allied health professionals.

- A blanket referral process is necessary to ensure that children with cancer and their caregivers have an early and ease of access to comprehensive allied health services to address the complex psychosocial needs.

Conclusion

Early psychosocial screening and intervention in the first year of childhood cancer was effective in reducing psychological distress, particularly for parents. Nevertheless, more targeted support may be required to address the complex psychosocial needs of children with cancer in the early stages of treatment.

Additional Information

The Psychosocial and Supportive Care Programme (PSCP) was developed by KKH in partnership with the Children's Cancer Foundation (CCF) to support Singaporean and Singapore permanent resident children diagnosed with cancer and their caregiver(s). The programme consisted of holistic, timely and tailored interventions for paediatric-oncology patients to support their psychological, nutritional and rehabilitative needs (see attached for more information on the PSCP programme).

- SingHealth Allied Health Innovation Practice (AHIP) Award 2019
 - Ground-breaking, Effective and Momentous (GEM)
- Singapore Health Quality Service Award 2020
 - Best Team Merit Clinical Practice Improvement
- Singapore Allied Health Conference 2021
 - Best Oral Presentation (Health Sciences)

Project Category

Applied Research; Care & Process Redesign

Keywords

Applied Research, Care & Process Redesign, Paediatrics, Oncology, Allied Health, Psychology, Rehabilitative Care, KK Women's and Children's Hospital, Childhood Cancer, Psychosocial Screening, Psychosocial Intervention, Psychological Distress, Psychosocial and Supportive Care Programme, Quality of Life

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Singapore Allied Health Conference 2021

KKH Psychosocial and Supportive Care Programme (PSCP) for Paediatric Oncology

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Background:

The diagnosis and treatment of childhood cancer pose major challenges to the child and their family. In particular, the associated late effects of cancer and its treatment increase the likelihood of the child experiencing more adaptive challenges, learning and psychological difficulties in adult life. The child's diet is also very important during treatment and different nutritional plans are essential to maintain a healthy weight.

Challenges faced by caregivers and Allied Health Professionals (AHPs) include, the affordability of holistic supportive care services, timely interventions, lack of understanding and awareness by the family, school and larger community about the late effects of cancer in children, and barriers in referral processes to AHPs.

Approach/Attempt:

To overcome these challenges, the Psychosocial and Supportive Care Programme (PSCP) was developed for all Singaporean and Singapore permanent resident children diagnosed with cancer and their primary care-giver(s), in partnership with the Children's Cancer Foundation (CCF).

The programme consisted of holistic, timely and tailored interventions for paediatric oncology patients so as to support their Psychological, Nutritional and Rehabilitative needs.

1) Neuro-Psychosocial

Psychologists developed a new cognitive rehabilitation group, tailored to the local needs, targeting the neurocognitive late deficits. Feedback from patients and care team, locally and internationally, is encouraging. Positive gains in reducing psychological distress for parents and increased support for the child with cancer were achieved.

2) Nutrition & Dietetics

Dietitians developed a validated screening protocol specific for assessing the nutritional status upon admission. Nurses were up-skilled to administer the screening tool as an affordable and sustainable practice. Interim findings revealed that early dietetic intervention resulted in significantly more children maintaining a healthy weight despite their cancer diagnosis and treatment.

3) Rehabilitation

- Speech Language Therapy
 - Occupational Therapy
 - Physiotherapy
 - Music therapy
- Intensive rehabilitation interventions enabled children to achieve their individualised clinical goals and functional status.

Outcomes – Clinical, Research & Education:

1) A first ever Psychosocial and Supportive Care Education Conference in Childhood Cancer in Singapore for Educators and Health Care Professions (HCPs), 27 - 28 Aug 2019

To provide a collaborative platform for exchanging ideas, sharing & learning valuable expertise so as to enhance the support available in the schools and community.

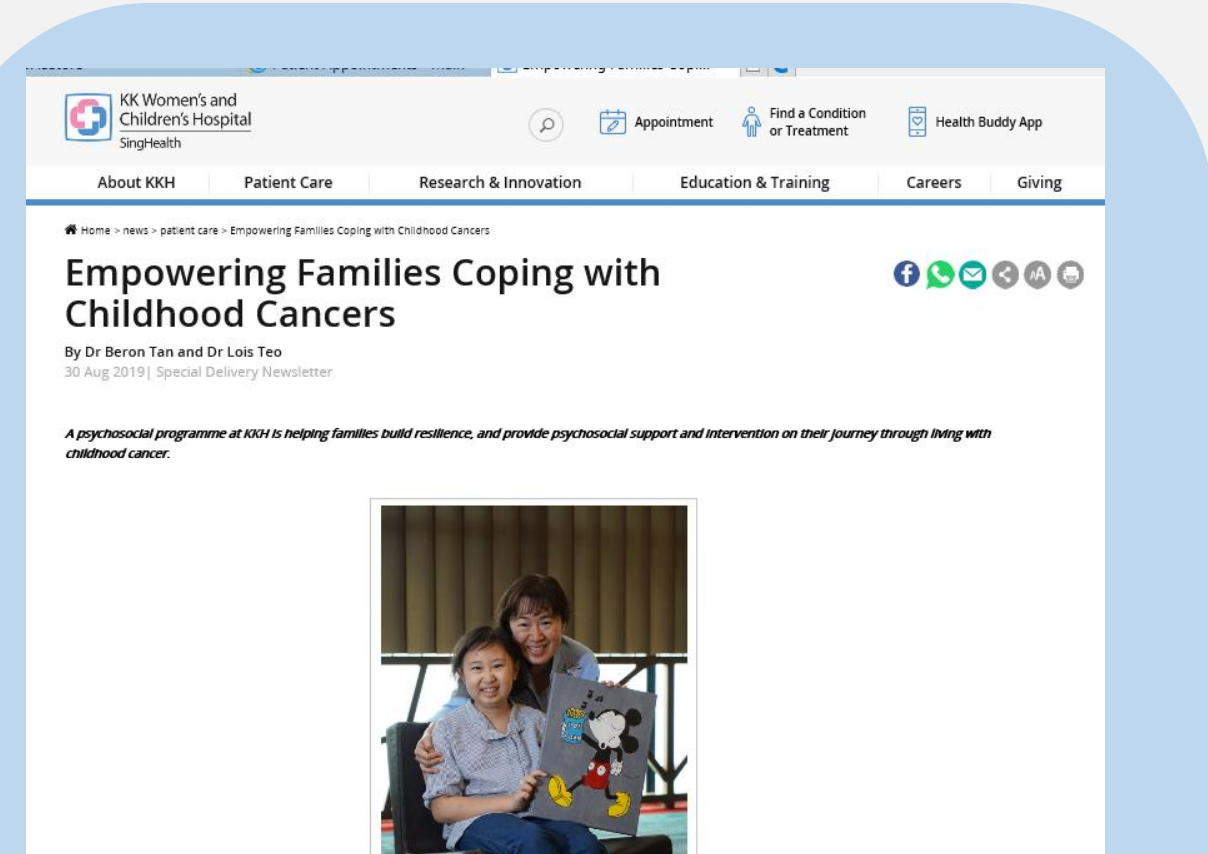
2) Group Programmes since 2018

- Help children and parents cope with life after cancer.
- Learn strategies to manage the difficulties in learning, memory and everyday activities following cancer treatment.
- Interactive and practical skills-based group programmes: Brain Champs and ReThink.

3) Psychosocial Education News/Research Article Publications



"Childhood cancers: Parents also need psychological support"
6 October 2019
Lianhe Wanbao



"Empowering Families Coping with Childhood Cancers"
30 August 2019
KKH Special Delivery

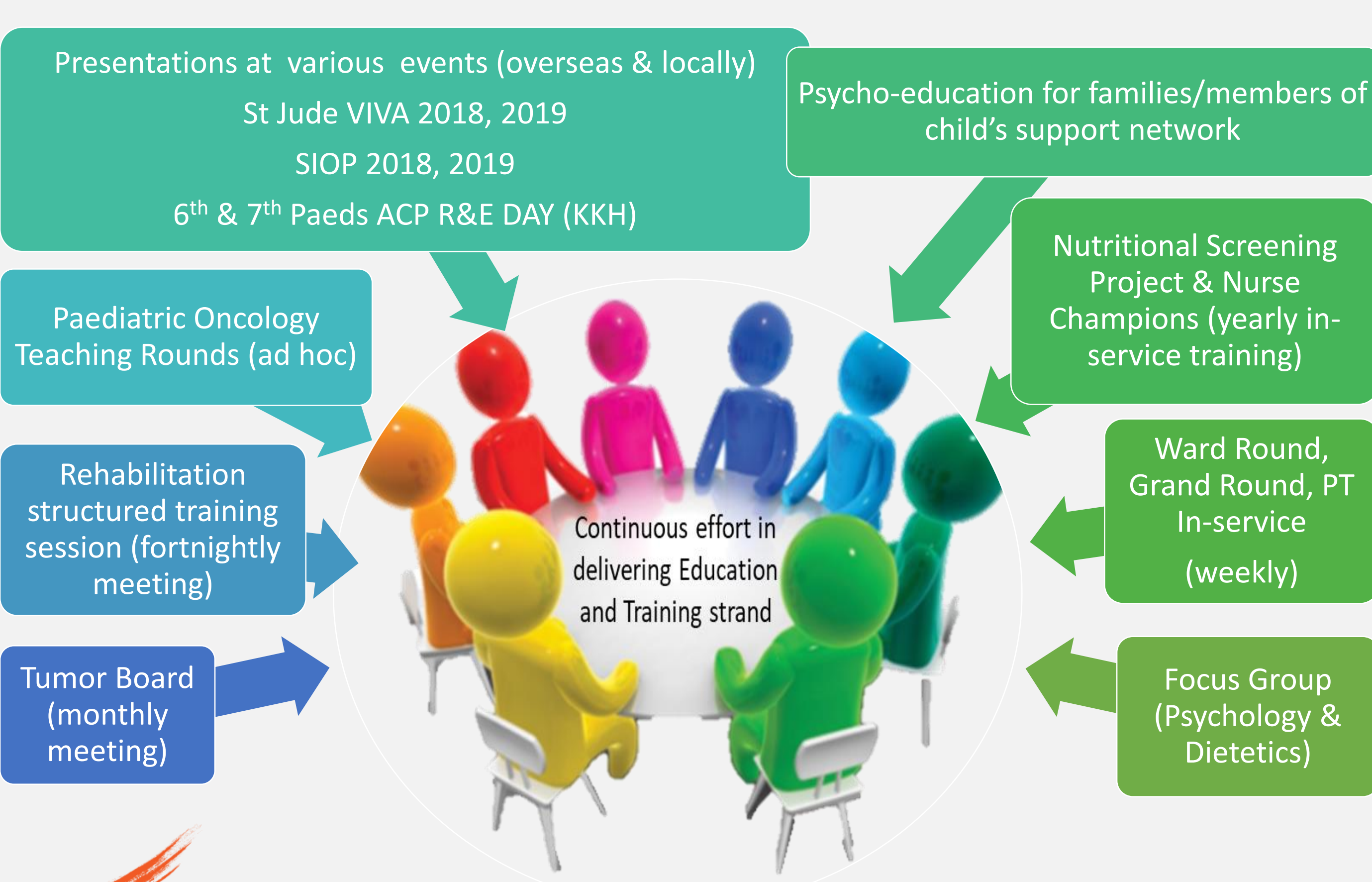


"80 per cent of local children with childhood cancers can recover"
25 October 2019
Shin Min Daily News



"The parental experiences of caring for children with childhood cancers in Singapore: a pilot focus group study"
2020/Issue 29/Vol. No. 3 and Page No. 183-189
Proceedings of Singapore Healthcare

4) Other Education and Training Outlets for Families and HCPs



Lesson Learnt/Significance/Impact:

With the PSCP's enhanced and structured referral and work flow process implemented, this resulted in standardised and validated screening for all newly diagnosed patients. Bespoke and timely interventions to improve quality of life and overall prognosis were also provided. This first-ever local comprehensive psychosocial programme also lightened the financial burden for patient's family in accessing AHP services.

TESTIMONIALS

'The physiotherapists help me to get my strength back and walk with one leg using the walker. The music therapy help me to relax my mind'
Child

'Support from this programme was invaluable in helping me manage the distress and trauma of my son's treatment. I am now much happier, calmer and able to care for my children better. I am even able to plan for going back to work'
Mother of child aged 11

'Through music, the child began to open up, work on focusing on her strengths while processing what she was going through. Music therapy will continue to support her in the maintenance of mood and morale through her treatment.'
Music Therapist