

A photograph of a family (mother, father, and young child) sitting on the floor and playing with colorful blocks. The mother is smiling and looking at the child, while the father is also smiling and looking at the blocks. The child is focused on the blocks. The background shows a window with white curtains and a white crib.

SPARKX Children Behavioural Intervention

Outcome Evaluation Report

TOUCH commissioned the Centre for Evidence and Implementation to conduct this evaluation from 2022 to 2024. This summarised report was drawn from the full report authored by Dr Grace Chng, Marlyna Mochtar, and Dr Cheryl Seah, with support from Joel Koh.

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Executive Summary

Context

SPARKX is an intervention programme by TOUCH Counselling and Intervention, a service of TOUCH Integrated Family Group, TOUCH Community Services (TOUCH). SPARKX is designed to build protective factors in children aged 9 to 12 years to prevent delinquency when they transition into adolescence. The programme uses a combination of individual counselling, group and family sessions to enhance children's self-management skills, school bonding and family relationships.

The Centre for Evidence and Implementation (CEI) was commissioned by TOUCH to evaluate the programme. In 2021, CEI completed a developmental evaluation on the first two runs of the SPARKX programme. Recommendations were provided to strengthen the programme design and implementation, and the use of more suitable outcome measures for its monitoring and evaluation. For the first two runs, it was highly commendable that the programme team responded quickly to the restrictions brought about by COVID-19 and continued to engage the families through a virtual platform when in-person contact was not feasible. The team was also conscientious in documenting changes to programme delivery for subsequent runs – both in content and format – to respond to the changing needs of the children. For run 3, the programme team rolled out an updated suite of evaluation tools and collected the data in a consistent and timely manner. Indicators were carefully selected based on evidence-informed predictors shown to reduce the youths' risk of engaging in delinquency.

Evaluation Scope and Objectives

This final report presents the overall findings from the multi-year evaluation of the SPARKX programme. This evaluation examined the reach, effectiveness, and implementation of the SPARKX programme.

Reach and implementation results were available across runs 1 to 3 while effectiveness results were only available for run 3. The six-month follow up data collection with caregivers was not feasible due to a number of reasons hence information about maintained benefits of programme participation would not be included.

Methodology

A total of 57 families participated in Run 3 with the refined programme alongside a revised set of outcome measurement tools to capture programme change in a timely manner. 44 caregivers completed pre- and post-programme survey measures on family relationships and functioning, school bonding and child outcomes. 46 children completed pre- and post-programme survey measures on perceived family functioning. Eight caregivers who completed the programme in Run 3 were interviewed to provide additional qualitative data on perceived benefits and utility of their participation.

A mixed method approach was used where findings were synthesised from multiple data sources. This included administrative programme data, quantitative outcome data which was collected pre- and post-programme, and qualitative data from caregivers. The RE-AIM framework was used to guide the development of specific research questions and data analysis.

Key Findings

Reach

A total of 130 families were involved in three runs of the programme between 2021 to 2023. 57 families participated in Run 3, achieving 95% of the programme team's target to provide SPARKX to 60 families with children ranging between 9 to 12 years:

- Similar to the first two runs, the average age of the children was around 10-11 years at 10.75, with a higher proportion of boys (83%) compared to girls (27%).
- Majority of the main caregivers (65%) were mothers.
- The average household size was 4.21.
- Run 3 had a lower proportion of families living in rental flats (37%) compared to Run 1, with an estimated monthly household income of less than \$1200.
- Emotional issues (e.g., emotional regulation, anger management) and device use issues (e.g. excessive usage and cyber safety) were the top two presenting issues for referral to the programme. Beginning from Run 2, the most common presenting issue was device use issue. For children presenting with co-occurring issues, the majority were referred for SPARKX with both device use and emotional issue.

Effectiveness

Parental Outcomes

The overall findings suggest that the SPARKX programme is likely to improve a number of parental outcomes. Caregivers perceived positive changes in:

- the use of coercive parenting, where they used negative or threatening parenting practices less frequently.
- parental adjustment, where they experienced less parental stress and expressed less negative affect or emotions.
- parental self-efficacy, personal agency and self-sufficiency. Caregivers perceived themselves to be better at coping with parenting challenges and had gained skills to help their children. In addition, caregivers perceived their roles differently and made an effort to listen and connect with their children.
- their experience of family conflicts, where caregivers reported fewer occurrence of family conflict in their family.

There were no significant changes in the programme objective of improved family relationship (e.g., parent-child relationship). However, the caregivers who consented to be interviewed reported some positive improvements in both parent-child and family relationships.

Child Outcomes

For child outcomes, caregivers reported improvements post-programme in:

- their child's emotional dysregulation, where caregivers reported improvement in children's flexibility, when dealing with anger (e.g., being easily frustrated) or mood lability (e.g., tendency to throw tantrums easily).
- reduced frequency of their child's externalising behaviours (e.g., conduct issues) but not internalising behaviours (e.g., anxiety, depression).

For school bonding outcomes, the collected data was not particularly strong or robust enough to suggest an improvement with the children's engagement with their schools. There was missing information and a lack of comparability across schools.

For a portion of the cases (up to 61%), caseworkers perceived an improvement in the child's peer relationships, behaviour in school, school attendance and motivation to learn based on conversations with caregivers and/or schools. We note that engagement of the programme team with the school staff was challenging, both to intervene collaboratively and to collect data efficiently.

Implementation

Apart from the suitability and usefulness of content coverage for the families, the way in which the SPARKX programme was delivered is also important. Majority of the interviewed caregivers perceived the programme to be beneficial. Caregivers attributed their positive experience of the programme to the quality of the caseworkers' relationship with them and caseworkers' ability to share practical and feasible strategies with them.

To increase the programme reach, the SPARKX team may need to be mindful about misconceptions affecting families' perceptions and willingness to sign up for the programme, and address these when they begin their engagement with caregivers.

The frequency of the group, family and individual counselling sessions, as a package of the full intervention, may require recalibration. The team can consider tailoring the intensity (i.e., frequency, duration) of support based on the complexity of families' needs. Furthermore, the current attendance data showed that families were not able to attend all the intended sessions. Additionally, about half of the 57 families required extension beyond the targeted 12 months programme duration.

Lastly, parents with children aged 11-12 years perceived the programme to be useful in supporting major transitions faced by their children (e.g., major exam, starting out in secondary school). This suggests continuing parental concerns about their children's transitions and development, and their need for extended support. This is in spite of emerging programme benefits reported by these parents.

Recommendations and Conclusion

Overall, the findings suggest positive changes in caregivers' outcomes, caregivers' experience of familial conflicts, and their perception of children's emotional dysregulation and externalising behaviours. Benefits were less obvious in family relationships at this point, both from the caregiver and child perspectives.

In light of the common presenting issues for referral, a proportion of the programme content may need to be tailored to address device usage and digital safety. Alternatively, the programme team may need to review the way intake screening and stacking of intervention sessions would be carried out. For example, flexible and tailored stacking of intervention topics that are relevant to the families' presenting issues, in addition to the foundational content modules. This allows intervention content to be best mapped to presenting issues, since the cohort of families differs in each run.

Tools such as a fidelity checklist or a detailed practice guide would enhance the quality of programme delivery, especially for new caseworkers who need to refer to them to deliver the programme as intended.

Lastly, the programme team should continue the good work they have started and put in place for continual monitoring of this programme. A larger sample across runs would strengthen the validity and reliability of the measured programme outcomes. The programme team has been highly invested in collecting and monitoring the quality of data throughout this study, seeking to understand what works and what does not. The team's commitment in ensuring data was collected in a timely and complete manner, and in using the validated outcome measures have resulted in useful insights to be drawn from this evaluation.

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