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# SNIPPET

*CUTTING-EDGE APPLIED RESEARCH*

## IN THIS ISSUE

# EDITOR'S NOTE

*by Dr. Rosaleen Ow (Reviewing Editor)*

As Snippet begins another year, we wish all our colleagues in the social service sector a fruitful but restful 2023!

Now that we have emerged from the pandemic and its multiple consequences, there is time for further review and reflections.

The first article by Ranganayaki Thangavelu concisely summarises the approach and the strategies undertaken by Beyond Social Services in the response, recovery and rebuilding of the effects on disadvantaged families during the pandemic. The article contains many important ideas about community participation, stakeholders' partnership and the role of workers in community development.

The second article from AMKFSC Community Services Ltd., by Vicki Lim and a team of colleagues, reports a study on the associations between trauma symptomatology and socio-emotional behavioural difficulties among children in community-based student care centres. Though seminal, the findings provide food for thought to the understanding of the effects that adverse childhood experiences have on children and the role of caregivers such as parents, schoolteachers, student care centre staff and social care professionals have in early assessment and intervention.

Both articles contain information and reflections that are relevant for future policy and practice in their respective domains.

Warm wishes and happy reading!

# Community and Social Development in the Post-Pandemic Era: Response, Recovery and Rebuilding by *Beyond Social Services*

*by Ranganayaki Thangavelu, Deputy Executive Director, Beyond Social Services*

Keywords: Beyond Social Services, Covid-19 impact, Low income families, Local Community Action, Participatory Research, Family Circles, Singapore

## Giving Ground to Voices that Matter

The Pandemic left no one unscathed, and the devastating impact on families living in the lower income bracket is still being felt.

Most of the problems low-income households faced in 2020 and 2021, as the pandemic continued raging, had roots before the virus hit us. What it did do was make the vulnerabilities of low-income families more salient, exacerbating their living conditions. The local and international research findings provide evidence on the intersections between persistent social inequalities and the unique economic stressors introduced by Covid-19.

Some of these were higher cost of living, food insecurity, work-care conflicts, employment challenges, and children and youth without adequate means to adapt to digital learning. (Zhao & Rasoulinezhad, 2021)

This article is based on the experiences of the families living in the government rental housing neighbourhoods that Beyond Social Services has had the privilege of engaging, and how it pivoted as an organisation to meet the needs of our community members as they braved the storm.

The basis of our approach – local community action driven by latent local strengths – influenced our approach, as we responded to the impact of the pandemic.

Beyond Social Services' Covid-19 Plan can be summed up in 3Rs - Response, Recovery, Rebuilding.

While it sounds neatly packaged now, it was an evolving process that required the community, colleagues and partners to come together to invent and reinvent and to listen to each other as we journeyed through the crisis. For the next 18 to 24 months after the first lockdown, we found ourselves implementing projects and programmes based on Response, Recovery and Rebuilding, informed by participatory research and participant involvement (see Figure 1).

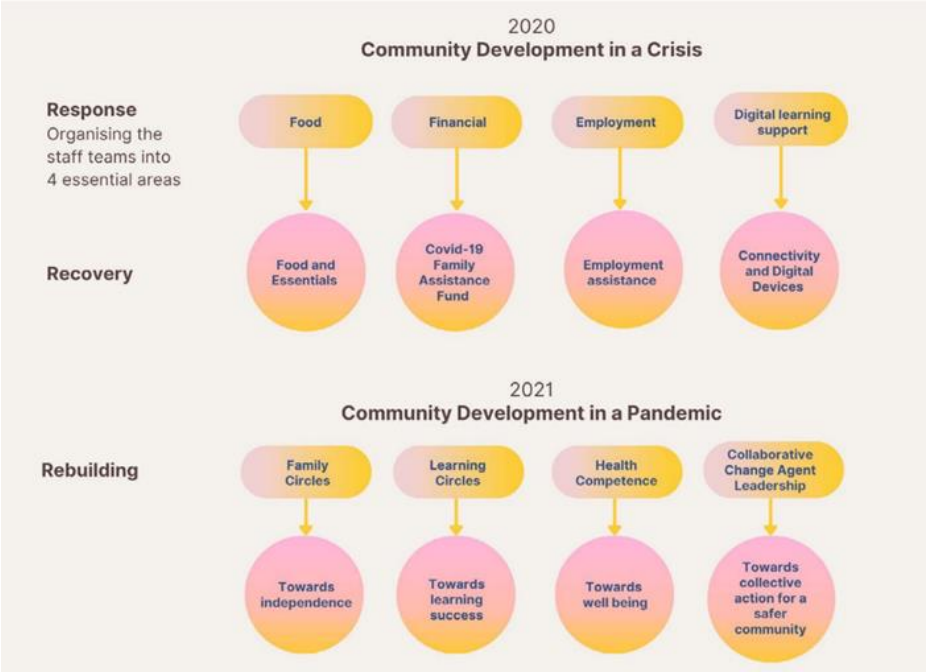


Figure 1: Image source: Beyond Social Services, Annual Report 2021

**Response**

Response was paramount in 2020 in the areas of Food Assistance, Financial Support, Employment opportunities, and Connectivity and Technology Support to meet the basic needs of families as bread winners lost their jobs, family members fell ill, and children were unable to 'attend' school from home.

We harnessed resources, organised ourselves, formed networks with other agencies and navigated the safety measures to reach the communities that we were in contact with, as they reached out to us.

It was not a one-way process, by any means. Helping was multi-pronged as the community came together very naturally, and provided support for each other. Support from civil society poured in through individual donors, corporations, restaurants, and other helping agencies. Along with the state assistance in the form of the 4 Covid-19 budgets that provided much needed support, we channelled civil society resources to strengthen the safety net for the communities we were present in.

This is what response looked like, as staff teams within Beyond were re-organised into these four categories:

- Food Assistance - Distribute cooked meals, food rations and supermarket vouchers across 14 neighbourhoods.
- Financial Assistance - Link to existing government assistance; provide temporary relief ($300-$500 over 3 months) for families to cushion against the loss of income through donations received.
- Internet Connectivity - Distribute devices and Wi-Fi across 64 rental blocks; provide volunteer-run home-based learning & homework support; facilitate access to governmental digital inclusion programmes.

- Employment Support - Link members to income-generation projects; assist with job applications; facilitate access to government resources; provide online training.

**Recovery**

Recovery is not straightforward. As people adapted and coped with their life difficulties, our support towards recovery could only be possible if we modified our approaches through community feedback. We emphasised participant involvement by encouraging the involvement of local community members as community enablers and community researchers. We recognised and leveraged existing close contacts and networks within local communities as residents were well informed about their neighbours' challenges and which resources would best benefit them.

Residents themselves plugged into the existing contact networks and expanded the circles by identifying new residents and others who could not actively participate in community groups especially if they were online.

These were deliberate efforts for our members to reclaim agency and reduce the power differentials. The initial four areas of Response were modified with the experiences on the ground.

As the year progressed, two Ps interspersed with Response, Recovery and Rebuilding. These were Participatory Research and Participant Circles, which provided space for the voices of those most affected (see Figure 2).


Figure 2: Flow chart of the inclusion of Participatory Research and Participant Circles.

These also created virtual groups in local communities – mostly on WhatsApp – resulting in local networks that looked out for each other. Local community representatives reached out to others, and we deliberately focused on reducing the power differential. Noteworthy is that the supportive circles in the local communities have expanded through the months, involving an increasing number of people.

The framework kept growing through the tireless efforts of colleagues at Beyond and the network of partner agencies as a result of joint efforts. One thing was more apparent in our community efforts, as compared to the pre-pandemic times, namely, the community workers' ability to fade into the background while placing the community members front and central.

Nevertheless, we did not disappear. Rather, we stepped back so that community could be better heard. This has led to Building "with" – more so than when we first started with. The focus is to encourage members to lead initiatives that rally the community together, and to take ownership of their circumstances.

**Rebuilding**

Rebuilding the vitality, camaraderie and community spirit in individuals, families, and communities as they emerged from the pandemic and building on the ongoing recovery were characteristic of this phase.

That happened through encouraging members to lead initiatives that rallied the community together, and to take ownership of their circumstances. Eighteen months into the crisis, we had initiatives that involved and engaged participants actively so they could be supported to address the issues that directly impacted them.

We started several initiatives that were informed by the participants. Here is a list (see Table 1) focused on interdependence and independence, consistently collating important data and feedback so that we could loop the findings back in, share them with the community, and grow the possibility of community participation further.

**Sew Can We – an initiative for economic well-being**

In this project, women with sewing skills were organised to earn some income as their families were impacted by the crisis. They later grew to become more skilled and developed diversified products with the support of each other, as well as other stakeholders. This project exemplifies what recovery and rebuilding look like.

| Recovery | Rebuilding |
|---|---|
| • 2020 - COVID-19 gave community mothers an opportunity in the midst of crisis to explore new revenue earning opportunities<br>• Face mask orders. Women quickly learnt about mask fabrics, filters etc.<br>• They gained confidence and new skills through practice, took ownership of the orders and supplemented their income<br>• Widening of their support circles and their eco-system – volunteer business mentor, corporate supporters and other volunteers.<br>• Collective hard work enabled them to move from not earning any money to earning SGD 25,000 as a team over 10 months | • 2021 – launch of new products (bags, pouches etc.), training for mothers through courses and volunteers who can develop new skillsets<br>• Collective ownership, decision making on the assigned projects.<br>• Ownership of the steps in the full cycle - meeting with the customers, deciding on the product cost, delegation of tasks, designing / costing / charging / delivery<br>• A few have also started their own home-based business on the basis of their other skills<br>• Not in need of social support for more than a year<br>• Strong bonds with each other |

Table 1: Examples of economic well-being initiatives

**Family Circles**

We must acknowledge Mauricio Miller and his ethos behind the Family Independence Initiative for inspiring this effort. We were unable to follow the model exactly, but have borrowed elements and applied it to our context and participants, to empower decision making and to strengthen networks among members.

The premise is that people have resources, ideas, dreams and lived experiences that have shaped them. There is already an inherent potential to overcome struggles through latent strengths. The family circles thus gave them the platform to share and to encourage one another in their aspirations and efforts.

We started the Family Circles by engaging those who have applied for the Covid-19 Family Assistance Fund and received financial assistance for 3 to 6 months. We invited them for conversations on how they wished to rebuild their lives. A total of 391 families have received funds in our neighbourhoods and we made 150 calls, and eventually 40 agreed to participate in the circles

The key focus is on improving the financial situation and growing social networks. It's not a smooth process, like all things in life, and we journey alongside and address challenges that arise. What remains constant is that the participants have autonomy and agency, and once again, the community workers remain on the fringe of the circle.

The outcomes for the community members who attend include stronger social networks among members, more mutual support as well as the birth of new ideas.

Key barriers we recognised were Zoom fatigue and some levels of 'stuckness', which was the inability to act on the agreed plans in between sessions due to different challenges.

From the facilitators' perspective, the learning curve we identified for ourselves is how to facilitate the participants' independence and not impose our values and beliefs to direct the actions of the participants. We duly acknowledge we have to be conscious in stepping aside.

There are other projects we initiated as part of the rebuilding phase such as Youth Want Work, Peer Learning Circles and the Community Fellowship programme, also based on the premise that people have innate strengths and with the right space, resources and social networks, they will be able to forge new pathways.

## Why does giving ground to voices that matter, matter?

For the sector, we know that people on the fringes are doubly impacted. Learning to rebuild from where they are at and providing the right scaffolding and support are necessary. In the process, we are gathering wisdom based on lived experiences - Participants have an insight that you and I don't as while we were all in the same storm, we were on different boats. There is unsurpassed wisdom from the suffering undergone and the struggles that have strengthened the members we engage. And from these personal experiences, we develop societal awareness to inform our responses on the ground level, as well as at the structures and system levels. This also allows for civil society participation, which we can already see through so many ground up efforts that birthed these past few years.

Also, at the sector level, we were heartened by the changes that were introduced early in the pandemic where automatic renewals of Comcare was instituted and the IMDA policy was changed to provide more laptops to families with more school

going children instead of the initial one laptop per family. More recently, the food directory was set up by MSF to bring together food providers and food needs.

For the participants, desisting from measuring outcome as a product of participation, we saw that participation itself is an outcome, that is, for participants to have voice and agency, and in the process, rebalancing power even if slightly.

Finally, I would like to leave us with a few questions to consider:  Whose evidence is taken into account? Is there enough space for the evidence that community provides? What are the experiences of community as it engages with the system? What are the experiences of the system as they engage various stakeholders? How can we create collective impact through community networks?

## References

Miller, M. (2017), The Alternative: Most of What You Believe About Poverty Is Wrong, Lulu Publishing Services

Zhao, L. and Rasoulinezhad, E. (2021) How has the coronavirus outbreak affected economic poverty in different Asian regions? *The Singapore Economic Review*, 1–23. Accessed from: https://doi.org/10.1142/s021759082144001x

## Acknowledgment

This article is based on a panel presentation on community and social development at the SSR Conference on 15 March 2022 on the theme of “Post-Pandemic Challenges and Planning for Social Services.”

# Associations between Trauma Symptomatology and Socioemotional-behavioural Difficulties Among Children from a Community-Based Student Care Population in Singapore

*by Vicki Lim Wei Qi, Shannon Peh Yu Xi, Tiang Shu Hui, Chuah Xing Jun, Yip Yun Ting, Randell Chan Yi Long, Satvinder Singh Dhaliwal, AMKFSC Community Services Ltd.*

Keywords: Stressful Childhood Experiences; Socioemotional-behavioural Difficulties; Child and Adolescent Trauma Screen (CATS); Strengths and Difficulties Questionnaire (SDQ); Community-based Student Care Centres

## Introduction and Literature Review

Childhood adversity is a well-known precursor for negative health outcomes and development (Felitti et al., 1998). Particularly, exposure to Adverse Childhood Experiences (ACEs) (i.e. stressful experiences encountered during childhood that can be potentially traumatic) has been established as a significant risk factor for physical, mental, behavioural and emotional health challenges across the lifespan (Cotter & Yung, 2017).

Research into ACEs exposure has explored two hypotheses of the relationship between ACE exposure and negative outcomes: the dose-response hypothesis and the cumulative risk hypothesis. Proponents of the dose-response relationship between ACEs exposure and health outcomes purport that every ACE exposure increases the risk of negative consequences in the physical, behavioural and mental health domains later in development (Hughes et al., 2017; Jia & Lubetkin, 2020; Ofuchi et al., 2020; Park et al., 2021; Song & Qian, 2020; Subramaniam et al., 2020; Turney, 2020).

It has been reported that children with any ACE exposure tended to have experienced multiple ACEs and not one in isolation (Freeman, 2014). Accordingly, the cumulative risk hypothesis posits that the accrual of ACEs exposure increases the risk of negative socioemotional and developmental outcomes (Felitti et al., 1998). For example, Kenney & Singh (2016) found that children with three or more ACEs were significantly more likely to exhibit higher levels of impulsivity, hyperactivity, aggression, anxiety, negative affect, delinquency, and symptoms of posttraumatic stress disorder than children without this history. Another study reported that exposure to three or more ACEs was positively associated with physical (e.g., asthma, headaches) and mental (e.g., anxiety, depression, conduct or behavioural problems) health conditions (Turney, 2020).

## Rationale and Aims for Current Study

In local community-based student care centres, the student population include children from multi-stressed families exposed to a range of stressful and potentially traumatic events, such as domestic violence and household dysfunction. Their socioemotional difficulties could be further perpetuated by the COVID-19 pandemic. For example, confinement to homes may diminish crucial social support structures (Sang et al., 2021). Singapore also saw a 22% increase in police reported

domestic violence during the April 2020 stay-at-home order (Channel News Asia, 2020). The emergence of the COVID-19 pandemic thus necessitates a renewed examination of the effects of such stressful experiences on the children's wellbeing.

Some of these stressful childhood events are preventable and their unfavourable effects can be improved by activating supporting systems and early interventions. Hence, it is important to understand the origins and indicators of trauma-related symptoms to support early identification and improve outcomes for this group of vulnerable children.

This study focused on three community-based student care centres in Singapore, which serve children aged 7 to 14 years old from disadvantaged families and are appropriate sites to examine the prevalence of both trauma-related stress and presenting socioemotional and behavioural difficulties, as well as their relationships. Findings from this study can provide insights into the needs of children from multi-stressed families, to guide early identification and inform service planning, including systems-wide and early targeted intervention.

## Methodology

### *Participants*

All children enrolled in the three student care centres were invited to participate in this study. Participation was voluntary and students whose parent or guardian had given written informed consent were recruited for the study. The sample consisted of 37 children (14 females, 23 males) with ages ranging from 6 to 13 (M = 9).

### *Measures*

Basic demographic and household information were collected through a participant information form designed by the researchers. In addition, two standardised measures were administered to collect data for this study:

1. The Child and Adolescent Trauma Screen (CATS), to identify stressful childhood experiences and measure traumatic stress symptoms. The self-report (for all ages) and caregiver forms were used.

2. The Strengths and Difficulties Questionnaire (SDQ), to screen for the presence of behavioural and emotional problems in the children. The self-report (for ages 11 and above), parent and teacher forms were used. Participants below the age of 11 were not asked to complete the self-report due to the minimum age required.

### *Procedures*

The measures were completed by multiple informants - (i) the children themselves, (ii) parent or guardian (henceforth referred to as parents), and (iii) student care centre staff. For CATS measures, information was collected from each child and their parents. SDQ measures were collected from the child themselves, their parents and their student care centre teacher. Parents and staff rated the children on the questionnaires given to them and did so independently, unless phone or face-to-face assistance from the researchers was requested. The self-report SDQ, which was brief and more straightforward, was completed by the children independently. The self-report CATS on the other hand, was individually administered by the researchers with the children as its content was deemed to require more explanation to aid understanding, especially for the younger children.

***Statistical Analysis***

Both CATS and SDQ were scored prior to analyses. Based on the total CATS score, children were grouped into the following categories based on the defined cut-off points: normal (0 - 14), moderate trauma-related distress (16 - 20), and significant trauma-related distress (21 and above). SDQ scores were grouped into the following categorisation - close to average, slightly raised, high, and very high, based on the defined cut-off points. For children self-reported SDQ, the following cut-off points were defined: close to average (0-14), slightly raised (15-17), high (18-19), and very high (20-40). For parents-reported SDQ, the cut-off points were as follows: close to average (0-13), slightly raised (14-16), high (17-19), and very high (20-40). The cut-off points for teacher-reported SDQ were: close to average (0-11), slightly raised (12-15), high (16-18), and very high (19-40).

Descriptive statistics for continuous variables were represented as mean ± standard deviation, and categorical variables were represented as count (percentage). Cohen's Kappa was used to assess agreement between parent and child reports of the child's experience of traumatic stress symptoms (CATS). Similarly, Cohen's Kappa was used to assess agreement between child, parent, and student care centre staff reports of the SDQ components. Spearman's correlations were run to find relationships between child's self-report of the scored CATS and SDQ components, as well as between parents-reported of the scored CATS and SDQ components. P-values less than 0.05 were considered as statistically significant. SPSS Version 26 was used for all analyses.

# Results

The sample consisted of 37 children (14 females, 23 males) with ages ranging from 6 to 13 (M = 9).

***Prevalence of Stressful Childhood Events***

45.9% of the children in this sample reported experiencing 3 or more stressful childhood events. The top three stressful childhood events identified were 'being slapped, punched or beaten up in your family', 'seeing someone in your family getting slapped, punched or beaten up' and 'serious accident/injury'. These stressful childhood experiences and traumatic stress symptoms were reported to have impacted aspects of the children's functioning, with the most affected areas being general happiness, family relationships, and getting along with others.

***Overall Levels of Trauma-related Distress (Child and Adolescent Trauma Screen (CATS))***

Table 1A presents the overall levels of trauma-related distress, based on children's self-reported and their parents-reported CATS score. 27% of children reported moderate to significant levels of trauma-related stress on the CATS. 27% of parents also reported moderate to significant levels of trauma-related stress on the CATS for their children.

Table 1A. Overall levels of trauma-related distress, based on total CATS score (%)

| | **Normal** | **Moderate** | **Significant** |
|---|---|---|---|
| **Self-Report CATS** | 72.9 | 13.5 | 13.5 |
| **Parents-Reported CATS** | 72.9 | 10.8 | 16.2 |

Negative mood/cognition and arousal were the most commonly-reported trauma symptoms (Table 1B).

Table 1B. Percentage who met criterion for each CATS traumatic stress symptom domain (%)

| | **Re-experiencing** | **Avoidance** | **Negative mood/cognition** | **Arousal** |
|---|---|---|---|---|
| **Self-Report CATS** | 21.6 | 32.4 | 48.6 | 59.4 |
| **Parents-Reported CATS** | 35.1 | 27.0 | 35.1 | 37.8 |

***Concordance between Parent and Child Report on CATS Items***

Cohen's Kappa was used to assess agreement between parent and child reports of the child's experience of traumatic stress symptoms. Kappa statistics for parent-child agreement with respect to specific CATS items are shown in Table 1C. Overall, agreement between parent and child report was poor to fair, with κ ranging from -.160 to .285. Negligible and non-statistically significant agreement was found between parent and child for all CATS items.

Table 1C. Agreement between Parent and Child on Child and Adolescent Trauma Screen (CATS) Items

| **CATS Items** | **Kappa** | **Only Child Reports (%)** | **Only Parent Reports (%)** | **Both Report (%)** | **Neither Report (%)** |
|---|---|---|---|---|---|
| **Re-experiencing** | .285 | 8.1% | 21.6% | 13.5% | 56.8% |
| **Avoidance** | -.160 | 27.0% | 21.6% | 5.4% | 45.9% |
| **Negative Mood/Cognition** | -.035 | 32.4% | 18.9% | 16.2% | 32.4% |
| **Arousal** | .173 | 32.4% | 10.8% | 27.0% | 29.7% |

***Prevalence of Emotional-Behavioural Problems (Strengths and Difficulties Questionnaire (SDQ))***

27.3% of the student sample were reported to present with very high levels of overall emotional-behavioural difficulties (Table 2A).

Table 2A. Overall levels of emotional-behavioural difficulties, based on total SDQ scores (%)

| | **Close to Average** | **Slightly Raised** | **High** | **Very High** |
|---|---|---|---|---|
| **Self-Report** | 54.5% | 18.2% | - | 27.3% |
| **Caregiver** | 62.2% | 13.5% | 16.2% | 8.1% |
| **Teacher** | 75.7% | 13.5% | 5.4% | 5.4% |

***Concordance between Parent, Teacher (Student Care Centre Staff), and Child Report on SDQ Ratings***

Fair agreement was found among the three raters (Kappa values ranging from .186 to .241) (Table 2B).

Table 2B. Agreement between Child, Parent, and Teacher on Strengths and Difficulties Questionnaire (SDQ) Ratings: Very High/High Vs Slightly Raised/Close to Average

| **Agreement between** | **Kappa and Percentage (%) in each category** | | | | |
|---|---|---|---|---|---|
| **Child and Parent** | .241 | **Only Child Reports (%)** | **Only Parent Reports (%)** | **Both Report (%)** | **Neither Report (%)** |
| | | 9.1% | 27.3% | 18.2% | 45.5% |
| **Child and Teacher** | .233 | **Only Child Reports (%)** | **Only Teacher Reports (%)** | **Both Report (%)** | **Neither Report (%)** |
| | | 18.2% | 9.1% | 9.1% | 63.6% |
| **Parent and Teacher** | .186 | **Only Parent Reports (%)** | **Only Teacher Reports (%)** | **Both Report (%)** | **Neither Report (%)** |
| | | 8.9% | 5.4% | 5.4% | 70.3% |

***Relationship between Child's Report of CATS and SDQ***

Significant positive correlations were found between child's self-reported total CATS and SDQ scores ($r_s$ = .827, p = .002) (Table 3A). In addition, there were significant positive correlations between child's self-reported re-experiencing symptom on CATS and Conduct symptom ($r_s$ = .709, p = .014), Hyperactivity symptom ($r_s$ = .623, p = .041), Peer Problem symptom ($r_s$ = .642, p = .033) on SDQ, and total SDQ score ($r_s$ = .766, p = .006).

Table 3A. Association between Child's CATS and SDQ Items using Non-Parametric Spearman's Rho. Each cell states the correlation (associated p-value).

| **CATS \ SDQ** | **Emotional Score** | **Conduct Score** | **Hyperactivity Score** | **Peer Problem Score** | **Prosocial Score** | **Total SDQ** |
|---|---|---|---|---|---|---|
| **Re-experiencing Score** | .381 (.248) | .709* (.014) | .623* (.041) | .642* (.033) | .123 (.718) | .766** (.006) |
| **Avoidance score** | -0.061 (0.858) | 0.244 (0.47) | 0.346 (0.297) | -0.015 (0.966) | 0.601 (0.051) | 0.135 (0.693) |
| **Negative Mood/cognition Score** | .662* (0.026) | 0.401 (0.222) | 0.396 (0.228) | 0.418 (0.201) | 0.206 (0.543) | .723* (0.012) |
| **Arousal Score** | 0.596 (0.053) | 0.578 (0.063) | 0.537 (0.089) | 0.545 (0.083) | 0.243 (0.472) | .793** (0.004) |
| **Total CATS score** | .649* (0.031) | 0.556 (0.076) | 0.51 (0.109) | 0.573 (0.065) | 0.186 (0.585) | .827** (0.002) |

***Relationship between Parent's Report of CATS and SDQ***

In examining the relationships between parents' reports on their child's CATS and SDQ, significant correlations were found between internalising indicators (Emotional and Peer Problem symptoms) with all CATS measures (Table 3B). Conversely, there were no significant correlations between externalising indicators (Conduct and Hyperactivity symptoms) with all CATS measures. In addition, based on parent report data, correlations were not significant between their child's trauma symptoms on CATS (i.e., re-experiencing, avoidance, negative mood, and arousal) and prosocial behaviour on SDQ.

Table 3B. Association between Parent-reported CATS and SDQ Items using Non-Parametric Spearman's Rho. Each cell states the correlation (associated p-value).

| CATS \ SDQ | Emotional Score | Conduct Score | Hyperactivity Score | Peer Problem Score | Prosocial Score | Total SDQ |
|---|---|---|---|---|---|---|
| **Re-experiencing Score** | .506** (0.001) | 0.263 (0.116) | 0.17 (0.314) | .391* (0.017) | -0.059 (0.73) | .418* (0.01) |
| **Avoidance score** | .454** (0.005) | 0.232 (0.167) | 0.16 (0.354) | .373* (0.023) | -0.163 (0.335) | .386* (0.018) |
| **Negative Mood/ Cognition Score** | .527** (<.001) | .391* (0.017) | .368* (0.025) | .600** (<.001) | -0.136 (0.422) | .604** (<.001) |
| **Arousal Score** | .429** (0.008) | .408* (0.012) | .389* (0.017) | .506** (0.001) | -0.12 (0.478) | .550** (<.001) |
| **Total CATS score** | .485** (0.002) | .331* (0.046) | 0.309 (0.063) | .481** (0.003) | -0.075 (0.658) | .499** (0.002) |

# Discussion

***Prevalence***

**(i) High prevalence of exposure to 3 or more stressful childhood events & levels of trauma-related distress in the sample**

The 2016 Singapore Mental Health Study (SMHS) conducted by Subramaniam et al. (2020) reported that 13.1% of their participants (aged 18 and above) had experienced 3 or more Adverse Childhood Events (ACEs). In another study, which screened the traumatic life events of preschool-aged children (aged 3 to 6), 28.7% of the study population experienced at least one stressful childhood event and approximately 20% of them reported moderate to significant levels of trauma-related stress on the CATS (above clinical cut-off ≥16) (Akkus et al., 2021). In comparison, this study found that 45.9% of the participants had undergone stressful childhood events- a figure that was relatively higher than the national average, and 27% of the participants reported moderate to significant levels of trauma-related stress on the CATS. These findings suggest that the students in SA, which particularly sets out to serve multi-stressed families, are generally exposed to considerable levels of stressful events and associated risks. Further, the current study's findings highlighted the need for better recognition and routine screening of traumatic experiences in the lives of children and the impact of events on their functioning, in facilitating early identification of and intervention for trauma-exposed children.

**(ii) Poor to fair agreement between children and their caregivers (i.e., parents and student care centre staff)**

The caregivers of children who rated themselves to experience high levels of trauma-related stress did not necessarily rate their children the same way. We hypothesise the following reasons for this difference. Firstly, it could be that children and their caregivers had selected and based their ratings on different stressful childhood events. After all, children and their caregivers may not hold the same view as to what children find troubling due to generational differences in perception of stress, especially if this is not a topic that is discussed openly between them. Secondly, the parents in our sample may not be highly-attuned to their children's emotional experiences. Thirdly, the difference could be due to the way the CATS was administered (i.e. administered by researcher with child vs. self-administered by caregiver). When we compared the self-reported SDQ measure, we again found a modest agreement between all three raters (children, parents and student care centre staff). This finding is consistent with a recent study (Salbach-Andrae, Lenz, & Lehmkuhl, 2020) which showed low to moderate agreement among informants (youths, parents, teacher) with regard to a measure of the youths' behavioural and emotional problems as well as other studies in the literature which show that the level of cross-informant agreement tend to be low to modest (Carneiro, Soares, Rescorla, & Dias, 2021; van der Ende, Verhulst, & Tiemeier, 2012). In practice, this highlights the importance of obtaining information from multiple sources about a child for a comprehensive evaluation as each informant can contribute unique and important information about the child's problems and strengths).

Given the discrepancies between children and caregiver reports, the data obtained from these informants are also discussed separately in the remaining sections.

***Relationships between Child Self-reported Symptoms***

**(i) Overall trauma symptomatology is strongly associated with global socioemotional and behavioural challenges**

Analyses of children's self-reports found that apart from the component of avoidant behaviours, all other aspects of their CATS scores and total SDQ scores were significantly positively correlated. This indicates that children who rated themselves as having high socioemotional and behavioural difficulties were more likely to have high overall levels of traumatic stress. They also tended to experience elevated trauma-related symptoms such as re-experiencing past stressful events via flashbacks or nightmares, negative moods and cognitions, and increased levels of arousal. This is consistent with previous findings that traumatic experiences are associated with the dysregulation of emotional states that can lead to uncontrolled anger (van der Kolk, 2005), as well as behaviours such as passivity, inability to concentrate, verbal and physical blow-ups, frequent absences, and "spacing out" (Frieze, 2015). These further impact social functioning as they limit the individual's ability to empathise and form attachments with others (Spence et al., 2021).

**(ii) Re-experiencing symptoms are strongly associated with both internalising and externalising difficulties**

The re-experiencing category of trauma-related symptoms was significantly positively correlated with most components of children's self-reported emotional and behavioural difficulties. Specifically, children who rated themselves as having high levels of re-experiencing symptoms (e.g., having upsetting thoughts or pictures about the trauma event, having strong emotional or physiological reactions when reminded of the event) tended to have more problems with conduct, hyperactivity, and peer relationships. Re-experiencing symptoms had been posited to be the most commonly reported symptoms of PTSD in young children, so much so that the American Academy of Child and Adolescent Psychiatry (1998) argued that its presence alone was sufficient for diagnosis of PTSD. Our findings are aligned with existing literature that re-experiencing symptoms are an especially important component of post-traumatic stress symptomology, and have significant implications

for concurrent adjustment problems in children across various domains (Cohen et al., 2010; Miller-Graff et al., 2016). Furthermore, given most of the traumatic experiences reported by the children were related to domestic conflicts, it is important to consider the sensitization hypothesis which postulates that rather than habituating or learning to cope with repeated traumatic exposure within the home setting, children's reactions may intensify over time (van Eldik et al., 2020) as they become more cognizant of their social environment (Giallo, 2020).

**(iii) Children with high trauma-related avoidant behaviours do not tend to report high internalising nor externalising difficulties, at least in the short-term**

It is noteworthy that high avoidant behaviours arising from traumatic experiences did not significantly correlate with any difficulties with emotional and behavioural functioning. Avoidant coping strategies may be providing immediate relief from unpleasant thoughts or emotions, in turn allowing children to display apparently healthy levels of functioning in the short term (Roche et al, 2019). Also at play may be a protective function that the child with trauma exposure is able to maintain adaptive levels of emotional and behavioural presentations as he or she avoids trauma triggers and minimises interactions with potential perpetrators. However, crucially, in the long term, it is important to consider that these avoidant strategies to control or suppress internal experiences have been found to be associated with greater psychological distress and severity of the unpleasant internal experiences over time (Thompson et al, 2011).

***Relationships between Caregiver-reported Symptoms***

**(i) Strong positive associations amongst parental reports of child's symptoms specific to arousal, emotional functioning, and social functioning**

The present study revealed that the parents' reports of their child's symptoms specific to arousal, emotional functioning, and social functioning are significantly positively correlated with one another. This is consistent with many studies in the field of developmental traumatology literature, where heightened scores on either positively predict similar trends on the others (De Bellis, 2001; De Bellis, 2005).

**(ii) Internalising indicators and social indicators, but not behavioural indicators, as significant predictors of all trauma symptoms**

A more in-depth analysis of the present study found that emotional mood, an internalising indicator as well as peer problems, a social indicator significantly predicted all symptoms on the trauma measure. Of interest are the present findings related to peer problems. Noticing how these children relate to their peers (e.g., struggling to fit in) in various settings (e.g., student care centres; school environment) may be the first step in identifying possible exposure to trauma. Although internalizing and social problems have been consistently found to be a risk factor and indicator for the development of PTSD symptoms across studies (Aaron, Zaglul, & Emery, 1999), it is still important to note the different manifestations across different cultures. Cross cultural studies have shown that Thai and African children exhibit more over-controlled or internalising behaviour while Caucasian American children exhibit more under-controlled or externalising behaviour (Weisz et al., 1993a; Weisz et al., 1993b), suggesting that cultural factors greatly influence children's manifestations of emotional and behavioural problems. This could be because aggression is discouraged in Asian countries, while self-control, emotional restraint and social inhibition are encouraged. Accordingly, Asian children may more likely internalise rather than externalise their problems.

Further analyses demonstrated that behavioural indicators (i.e., hyperactivity; conduct) did not significantly predict all symptoms on the trauma measure, except symptoms related to negative mood and arousal. While this does not imply that

behavioural indicators are not useful indicators of trauma, the findings from the present study instead accentuate the importance of shifting the emphasis from solely focusing on externalizing problems to also devoting attention to internalizing (e.g., emotional problems) and social problems (e.g., peer problems). The shifting carries serious implications for a child's educational performance, development of behavioural problems, vulnerability to psychopathology and even risk of suicide (Pine et al. 1998). Early identification and intervention prevent later pathology and build resilience in at-risk children (Liu, Chen, & Lewis, 2011).

Moving beyond behavioural indicators, the present study demonstrated that internalizing indicators and social indicators are equally useful and important indicators of trauma. Providing on-the-ground workers with a better understanding of these internalizing and social indicators is an important first step in that direction (Liu et al., 2011). From a biopsychosocial perspective, emotional indicators include negative emotional states (e.g., sadness, guilt), negative changes in thoughts, numbness, inability to enjoy anything and wide emotional swings from being blunted to extreme feelings (Veselinovic, 2003); social indicators include increased social isolation and withdrawal, perceived impairments in social competence and emotional intelligence, being less helpful than usual, appearing solitary, more likely to be less well-liked by their peers, and more likely to experience rejection by their peers (Kim & Cicchetti, 2010; Kinard, 1999; Gitterman & Heller, 2011; Mattar, 2018). Student care teachers may therefore benefit from formal training to more sensitively pick up these cues and, in turn, refer those in need for early interventions.

#### (iii) Non-significant relationship amongst parent-reported trauma symptoms with prosocial behaviours

The present study found that trauma symptoms (i.e., re-experiencing, avoidance, negative mood, and arousal) were not significantly correlated with the display of prosocial behaviors. Nonetheless, despite the non-significant results, it is important to note that the associations were negative across the specific trauma symptoms. This is consistent with literature where children who have been exposed to trauma have an increased concern for their own safety and future, therefore they are less capable of showing care or concern for others (Dodge, Bates, & Pettit, 1990). Consequently, this decreases their empathy and prosocial behaviour (Haskuka, Sunar, & Alp, 2008).

## Implications

***Introducing a trauma-informed lens***

Findings from the current study shed light on the prevalence of past traumatic experiences among a community-based student care population and their associated emotional and behavioural challenges. With this, adults working with children from similar populations could better empathize that students who have been exposed to and impacted by stressful childhood experiences likely require higher levels of regulation support, including co-regulation by trusted adults, which can equip them with regulation tools and strategies, as well as opportunities to practice these strategies. Caregivers and teachers may be provided with psychoeducation to enhance their awareness of potential underlying trauma-related reasons for children's observed socioemotional and/or behavioural difficulties. Relatedly, such an understanding from a trauma-informed lens may help moderate staff and caregivers' expectations of children's ability to independently self-regulate.

***Early identification***

Crucially, early identification and monitoring of children with known history of or ongoing stressful childhood experiences are necessary to ensure timely and targeted intervention. Considering social/peer problems and internalizing difficulties, beyond purely behavioural indicators, as earlier described may be important in providing a holistic monitoring and identification of

children's needs. Take for instance, currently, within AMKFSC Community Services Ltd, this is facilitated by close collaboration between the family service centres, Spright Academy (SA) and respective schools the child is enrolled in, via platforms and initiatives such as Children of Concern (COC)[1] meetings, Project Stories (PS)[2], and case conferences with schools that support monitoring, early identification and support planning for students. Consequently, such coordinated efforts by home, school and community partners can ensure that children-in-need gain access to mental health and/or social services as appropriate. In addition, teachers and parents can work closely to look out for and monitor early signs of trauma-related distress in children, in order to enhance understanding and early identification of children's needs.

***Systematic implementation***

From a resourcing perspective, active incorporation of trauma-informed practices is critical to effectively support the student care student population. This includes staff training to better understand and identify vulnerable children, a structured environment in SA to promote emotion regulation, as well as screening, monitoring and referral processes to ensure timely intervention. A tiered framework to proactively support and monitor students, practiced by the Positive Behavioural Intervention and Support (PBIS) approach may be considered.

## Limitations

Findings from the current sample (36.7% of total enrolment) may not be fully representative of the student population from student care centres, and there may be possible sample bias in that those who opted to participate in the study could have been more attuned to their children's trauma-related presentations to begin with. Additionally, the sample was not matched for demographics such as gender, age and race. Notably, self-report on the SDQ for students under 11 years of age were not available due to the minimum age of completion on the questionnaire. Informant reports for this group of students may not be an accurate and/or holistic representation of their emotional-behavioural difficulties. As with all correlational studies, such a research approach cannot establish causation. Nonetheless, existing research have shown that exposure to stressful and traumatic events increases children's vulnerability to emotional and behavioural difficulties. Conversely, increased emotional-behavioural challenges may contribute to increased risk of exposure to domestic stress or violence.

## Future Research Directions

Future studies can explore the common trauma triggers for children in the student care settings, with the aim of putting in place environmental support to reduce or mitigate the impact of these triggers. Additionally, the long-term impact of avoidant behaviours may be studied to investigate to what extent such behaviours are protective or harmful in the longer term, and if its impact differs across the nature of trauma experienced. From a strengths-based approach, follow-up studies can elucidate resilience factors that help buffer the impact of stressful childhood experiences on children's functioning. Where formal training for student care teachers to support early identification are provided, pre- and post-studies can be conducted as well, to evaluate its effectiveness as part of a holistic prevention approach.

[1] Children of Concern (COC) meetings are held regularly and attended by student care teachers from Spright Academy, as well as social workers and psychologists from AMKFSC Community Services Ltd. Students' behavioural and emotional concerns are raised and support strategies are discussed at this platform.

[2] Project Stories is an initiative by FSC to monitor children from at-risk populations. Social work professionals hold regular individual sessions with identified students as part of monitoring efforts.

# References


Aaron, J., Zaglul, H., & Emery, R. E. (1999). Posttraumatic stress in children following acute physical injury. *Journal of Pediatric Psychology, 24*(4), 335–343. https://doi.org/10.1093/jpepsy/24.4.335

Akkuş, P. Z., Serdaroğlu, E., Kömürlüoğlu, A., Asena, M., Bahadur, E. İ., Özdemir, G., Karahan, S., & Özmert, E. N. (2021). Screening traumatic life events in preschool aged children: Cultural adaptation of child and adolescent trauma screen (CATS) caregiver-report 3-6 years version. *The Turkish Journal of Pediatrics, 63*(1), 95–101. https://doi.org/10.24953/turkjped.2021.01.011

American Academy of Child and Adolescent Psychiatry. (1998). Summary of the practice parameters for the assessment and treatment of children and adolescents with posttraumatic stress disorder. *Journal of the American Academy of Child and Adolescent Psychiatry, 37*, 997–1001.

Carneiro, A., Soares, I., Rescorla, L., & Dias, P. (2021). Meta-analysis on parent–teacher agreement on preschoolers' emotional and behavioural Problems. *Child Psychiatry & Human Development, 52*, 609–618.

Channel News Asia. (2020, May 14). 22% increase in family violence reports since start of circuit breaker period: SPF. *Channel News Asia*. https://www.channelnewsasia.com/singapore/family-violence-domestic-abuse-police-reports-circuit-breaker-940316

Cohen, J. A., Mannarino, A. P., & Deblinger, E. (2010). Trauma-focused cognitive behavioral therapy for traumatized children. In Weiss, J. A., & Kazdin, A. E..(Eds.), *Evidence-based psychotherapies for children and adolescents* (pp. 295–311). New York, NY: Guilford.

Cotter, J., & Yung, A. R. (2017). Exploring the impact of adverse childhood experiences on symptomatic and functional outcomes in adulthood: Advances, limitations and considerations. *Irish Journal of Psychological Medicine*, 1-3. https://doi.org/10.1017/ipm.2017.53

De Bellis, M. D. (2001). Developmental traumatology: The psychobiological development of maltreated children and its implications for research, treatment, and policy. *Development and Psychopathology, 13*(3), 539–564. https://doi.org/10.1017/S0954579401003078

De Bellis, M. D. (2005). The psychobiology of neglect. *Child Maltreatment, 10*(2), 150–172. https://doi.org/10.1177/1077559505275116

Dodge, K. A., Bates, J. E., & Pettit, G. S. (1990). Mechanisms in the cycle of violence. science. *American Association for the Advancement of Science, 250*(4988), 1678–1683. https://doi.org/10.1126/science.2270481

Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., Koss, M. P., & Marks, J. S. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults. The adverse childhood experiences (ACE) study. *American Journal of Preventive Medicine, 14*(4), 245–258. https://doi.org/10.1016/s0749-3797(98)00017-8

Freeman, P. A. C. (2014). Prevalence and relationship between adverse childhood experiences and child behavior among young children. *Infant Mental Health Journal, 35*(6).

Frieze, S. (2015). How trauma affects student learning and behaviour. *BU Journal of Graduate Studies in Education, 7*(2), 27-34.

Giallo, R., Gartland, D., Seymour, M., Conway, L., Mensah, F., Skinner, L., Fogarty, A., & Brown, S. (2020). Maternal childhood abuse and children's emotional-behavioral difficulties: Intergenerational transmission via birth outcomes and psychosocial health. *Journal of Family Psychology*, 34(1), 112–121.

Gitterman, A., & Heller, N. R. (2011). *Mental health and social problems: A social work perspective.* Routledge.

Haskuka, M., Sunar, D., & Alp, I. E. (2008). War exposure, attachment style, and moral reasoning. *Journal of Cross-Cultural Psychology, 39*(4), 381–401. https://doi.org/10.1177/0022022108318113

Hughes, K., Bellis, M. A., Hardcastle, K. A., Sethi, D., Butchart, A., Mikton, C., Jones, L., & Dunne, M. P. (2017). The effect of multiple adverse childhood experiences on health: A systematic review and meta-analysis. *The Lancet. Public health, 2*(8), e356–e366. https://doi.org/10.1016/S2468-2667(17)30118-4

Jia, H.M., & Lubetkin, E. I. (2020). Impact of adverse childhood experiences on quality-adjusted life expectancy in the U.S. population. *Child Abuse & Neglect, 102*, 104418. https://doi.org/10.1016/j.chiabu.2020.104418

Kenney, M., & Singh, G. (2016). Adverse childhood experiences among American Indian/Alaska native children: The 2011-2012 national survey of children's health. *Scientifica, 2016,* 1-14.

Kim, J., & Cicchetti, D. (2010). Longitudinal pathways linking child maltreatment, emotion regulation, peer relations, and psychopathology: Pathways linking maltreatment, emotion regulation, and psychopathology. *Journal of Child Psychology and Psychiatry, 51*(6), 706–716. https://doi.org/10.1111/j.1469-7610.2009.02202.x

Kinard, E. M. (1999). Perceived social skills and social competence in maltreated children. *American Journal of Orthopsychiatry, 69*(4), 465–481. https://doi.org/10.1037/h0080395

Liu, J., Chen, X., & Lewis, G. (2011). Childhood internalizing behaviour: Analysis and implications: Childhood internalizing behaviour. *Journal of Psychiatric and Mental Health Nursing, 18*(10), 884–894. https://doi.org/10.1111/j.1365-2850.2011.01743.x

Mattar, J. W. (2018). The difference in emotional intelligence in relation to levels of maltreatment of Jordanian secondary school students. *International Journal of Adolescence and Youth, 23*(1), 61–69. https://doi.org/10.1080/02673843.2017.1292926

Miller-Graff, L. E., Galano, M., & Graham-Bermann, S. A. (2016). Expression of re-experiencing symptoms in the therapeutic context: A mixed-method analysis of young children exposed to intimate partner violence. *Child Care in Practice, 22*(1), 64–77. https://doi.org/10.1080/13575279.2015.1064360

Ofuchi, T., Zaw, A.M.M., & Thepthien, B. (2020). Adverse childhood experiences and prevalence of cigarette and e-cigarette use among adolescents in Bangkok, Thailand. *Asia Pacific Journal of Public Health, 32*(8), 398-405. doi:10.1177/1010539520962956

Park, A. T., Tooley, U. A., Leonard, J. A., Boroshok, A. L., McDermott, C. L., Tisdall, M. D., & Mackey, A. P. (2021). Early childhood stress is associated with blunted development of ventral tegmental area functional connectivity. *Developmental cognitive neuroscience, 47*, 100909. https://doi.org/10.1016/j.dcn.2020.100909

Pine, D. S., Cohen, P., Gurley, D., Brook, J., & Ma, Y. (1998). The risk for early-adulthood anxiety and depressive disorders in adolescents with anxiety and depressive disorders. *Archives of General Psychiatry, 55*(1), 56–64. https://doi.org/10.1001/archpsyc.55.1.56

Roche, A. I., Kroska, E. B., Miller, M. L., Kroska, S. K., & O'Hara, M. W. (2019). Childhood trauma and problem behavior: Examining the mediating roles of experiential avoidance and mindfulness processes. *Journal of American College Health, 67*(1),17-26.

Salbach-Andrae, H., Lenz, K., & Lehmkuhl, U. (2009). Patterns of agreement among parent, teacher and youth ratings in a referred sample. *European Psychiatry, 24*(5), 345–351.

Sang, X., Menhas, R., Saqib, Z. A., Mahmood, S., Weng, Y., Khurshid, S., Iqbal, W., & Shahzad, B. (2021). The psychological impacts of covid-19 home confinement and physical activity: A structural equation model analysis. *Frontiers in Psychology, 11*, 614770. https://doi.org/10.3389/fpsyg.2020.614770

Song, W., & Qian, X. (2020). Adverse childhood experiences and teen sexual behaviors: The role of self‐regulation and school‐related factors. *Journal of School Health, 90*(11), 830-841.

Spence, R., Kagan, L., Kljakovic, M., & Bifulco, A. (2021). Understanding trauma in children and young people in the school setting. *Educational and Child Psychology, 38*(1), 87-98.

Subramaniam, M., Abdin, E., … & Shahwan, S. et al. (2020). Prevalence, socio-demographic correlates and associations of adverse childhood experiences with mental illnesses: Results from the Singapore mental health study. *Child Abuse & Neglect, 103*, 104447.

Thompson, R. W., Arnkoff, D. B., & Glass, C. R. (2011). Conceptualizing mindfulness and acceptance as components of psychological resilience to trauma. *Trauma Violence Abuse, 12*(4), 220–235.

Turney, K. (2020). Cumulative adverse childhood experiences and children's health. *Children and Youth Services Review, 119*, 105538. 10.1016/j.childyouth.2020.105538.

van der Ende, J., Verhulst, F.C., & Tiemeier, H. (2012). Agreement of informants on emotional and behavioral problems from childhood to adulthood. *Psychological Assessment, 24,* 293–300.

van der Kolk, B. (2005). Developmental trauma disorder. *Psychiatric Annals, 35*(5), 401-408.

van Eldik, W.M., de Haan, A.D., Parry, L.Q., Davies, P.T., Luijk, M.P.C.M., Arends, L.R., & Prinzie, P. (2020). The interparental relationship: Meta-analytic associations with children's maladjustment and responses to interparental conflict. *Psychological Bulletin Journal, 146*, 553–594

Veselinovic, N. (2003). Rosenbloom, D., Williams, M. B., & Watkins, B. E. *Life after trauma: A workbook for healing.* Guilford Press. https://doi.org/10.2298/TEM0303051V

Weisz, J.R., Sigman, M., Weiss, B., & Mosk, J. (1993a). Parent reports of behavioral and emotional problems among children in Kenya, Thailand and the United States. *Child Development, 64,* 98-109.

Weisz, J. R., Suwanlert, S., Chaiyasit, W., Weiss, B., Achenbach, T. M., & Eastman, K. L. (1993b). Behavioral and emotional problems among Thai and American adolescents: Parent reports for ages 12-16. *Journal of Abnormal Psychology, 102*(3), 395–403. https://doi.org/10.1037//0021-843x.102.3.395

World Health Organization. (2017). *Responding to children and adolescents who have been sexually abused: WHO clinical guidelines*. Geneva: World Health Organization.

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