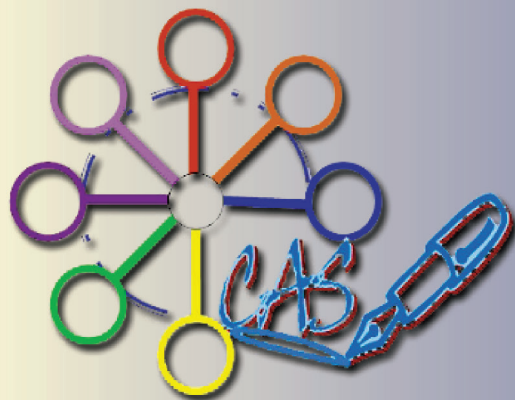




Child Assessment Service Epidemiology and Research Bulletin

Overview of Mandatory Reporting of Child Abuse in Hong Kong and an Update on Childhood Trauma

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Introduction

Child abuse remains a critical public health and social issue in Hong Kong, with evolving policies aimed at enhancing detection and intervention. Since 2020, significant legislative advancements have been made to address the under-detection of child maltreatment cases. In July 2024, Hong Kong's Legislative Council passed the Mandatory Reporting of Child Abuse Ordinance (Cap. 650), gazetted on July 19, 2024, and set to take effect in January 2026 after a grace period.¹ This ordinance marks a pivotal shift from voluntary reporting to a mandatory framework, responding to public concerns over under-reported severe cases of child abuse.² Prior to this, reporting suspected child abuse was encouraged but not legally required, leading to inconsistencies in identification and response.³

The ordinance mandates reporting by professionals in 25 specified occupations who, during their work, form a reasonable belief that a child has been or is at risk of serious harm. These professions include teachers, social workers, doctors, nurses, dentists, pharmacists,

and others in roles involving regular contact with children.⁴ Failure to report without reasonable excuse can result in a maximum penalty of three months' imprisonment and fines up to HK\$50,000, emphasising the government's commitment to early intervention.⁵ The law defines "serious harm" broadly, encompassing physical, sexual, and emotional abuse, and neglect that could lead to significant injury or impairment.¹ This includes non-accidental injuries, sexual exploitation, and situations where a child's basic needs are unmet, potentially resulting in long-term developmental issues.

To support implementation, the Social Welfare Department (SWD) released the "Guide for Mandated Reporters" in July 2025, providing detailed procedures for identifying and reporting suspicions of abuse.⁶ The guide outlines indicators such as unexplained injuries, behavioural changes, or disclosures from children, and stresses the importance of prompt reporting to the police or the SWD. Additionally, the government has rolled out online training programmes targeting mandated reporters to build capacity in recognising abuse.⁷

There are challenges in balancing child protection with family privacy and professional discretion. Critics argue that the ordinance must respect child autonomy, particularly in cases involving adolescents who may disclose abuse but fear family repercussions.⁸ The grace period until 2026 allows for public education and system preparation, including enhanced multidisciplinary case conferences involving the SWD, police, and healthcare

providers.⁹ Data from the SWD's Child Protection Registry (CPR) indicates that prior voluntary systems missed cases, with newly registered cases rising from 940 in 2020 to 1,367 in 2021, suggesting increased awareness amid the COVID-19 pandemic.¹⁰ By 2023, cases reached 1,457, reflecting a 7% increase from 2021, underscoring the need for mandatory mechanisms.¹¹

Overall, Hong Kong is aligning with international standards, such as those from the United Nations Convention on the Rights of the Child, by prioritising prevention and timely intervention. However, successful implementation will depend on ongoing training, public awareness campaigns, and monitoring to avoid overburdening professionals or stigmatising families.

Scientific Evidence-Based Updates on Childhood Trauma, Including Post-Traumatic Stress Disorder

Childhood trauma encompasses a range of adverse experiences that can profoundly impact development, with recent scientific updates emphasising neurobiological, psychological, and social dimensions. The Centers for Disease Control and Prevention (CDC) updated its Adverse Childhood Experiences (ACEs) framework in 2024, defining ACEs as potentially traumatic events before age 18, including abuse and household dysfunction, which increase risks for chronic diseases and mental health disorders.¹²

Physical abuse, involving intentional harm like hitting or burning, has been linked to altered brain structures, such as reduced hippocampal volume, affecting memory and emotion regulation.¹³ Sexual abuse, often involving exploitation or assault, has seen updates in evidence linking it to dissociative disorders and re-victimisation.¹⁴ A 2025 meta-analysis revealed that survivors exhibit disrupted hypothalamic-pituitary-adrenal axis function, leading to dysregulated stress responses.¹⁵

Emotional abuse, characterised by verbal belittling or rejection, is increasingly recognised as a damaging form of abuse. Research indicates it predicts subclinical PTSD symptoms, exacerbating depression through impaired social cognition.¹⁶ Neglect, the failure to meet basic needs, has been associated with attachment disorders and cognitive delays, with neuroimaging showing reduced gray matter in prefrontal areas.¹³

Post-Traumatic Stress Disorder (PTSD) in adults and children has received substantial updates. The American Psychological Association (APA) released new guidelines in 2024 for treating PTSD in adults.¹⁷ These guidelines advocate evidence-based therapies like trauma-focused cognitive-behavioural therapy (TF-CBT) and eye movement desensitisation and reprocessing (EMDR), emphasising phased approaches for complex PTSD (CPTSD).¹⁷ CPTSD, introduced in ICD-11, differs from PTSD by including disturbances in self-organisation, often stemming from prolonged childhood trauma like abuse.¹⁶ A 2025 latent profile analysis identified three profiles: PTSD-like, CPTSD-like, and low-symptom, with CPTSD more prevalent in chronic abuse survivors.¹⁶

Prevalence of PTSD among trauma-exposed youth is high, with an umbrella review estimating 20 to 30% development rates, influenced by factors like age, gender (higher in females), and low social support.¹⁵ Subclinical symptoms predict adverse outcomes in mindfulness-based programs for depression.¹⁶ Interventions for CPTSD show lower efficacy in childhood trauma cases compared to single-event traumas, per a 2014 meta-analysis.¹⁸ Developmental trauma (DT), an emerging concept, integrates relational disruptions, with 2022 research linking it to physiological dysregulation and interpersonal difficulties.¹³

Recent findings also address resilience factors, such as social support mitigating trauma effects.¹⁹ A 2019 study identified mental health risk factors post-trauma,

including pre-existing anxiety, which may increase the likelihood of PTSD.¹⁹ These updates underscore the need for trauma-informed care, integrating neurobiology with psychosocial interventions to prevent intergenerational transmission.

Epidemiology, Trends, and Patterns of Child Maltreatment from Post-2015 International Studies: Comparison with Hong Kong Data

International studies since 2015 reveal child maltreatment as a pervasive issue, with prevalence estimates varying by type and region due to under-reporting and methodological differences.²⁰ A 2024 umbrella review reported lifetime prevalence rates of 13% for sexual abuse, 23% for physical abuse, 36% for emotional abuse, and 16% for neglect globally.²⁰ Emotional abuse emerges as the most common form, yet least reported, often co-occurring with other types in poly-victimization patterns.²¹ Trends show fluctuations, with a 2022 analysis of U.S. data indicating declining physical and sexual abuse rates pre-COVID, but rising neglect linked to economic stressors.²²

The COVID-19 pandemic disrupted trends, with a 2024 study noting a 58% drop in child protective services (CPS) referrals in 2020 due to reduced visibility from school closures, followed by increases in 2021 as restrictions eased.²³ Globally, physical abuse and neglect rose during lockdowns, exacerbated by parental stress and isolation, with a 2024 narrative review highlighting heightened domestic violence exposure.²⁰ Post-2020, sexual abuse increased, particularly online exploitation, per UNICEF data estimating 150 million additional children in multidimensional poverty.²⁴ Risk factors include low socioeconomic status, parental mental health issues, and being female in cases of sexual abuse.¹⁴ Longitudinal patterns from 2011 to 2020 U.S. data show seasonal peaks in maltreatment reports, with higher rates among younger children for neglect and adolescents for abuse.²³

In comparison, Hong Kong's data post-2015, drawn from the SWD's Child Protection Registry (CPR), mirrors some international trends but reflects cultural and systemic differences. Newly registered cases averaged 893 annually from 2011 to 2015 (incidence 0.86 per 1,000 children), rising to 1,064 in 2018 before dipping to 940 in 2020 amid COVID-19.¹⁰ A surge to 1,367 in 2021 (45% increase) aligned with global post-lockdown spikes, attributed to increased family conflicts and online sexual abuse.¹¹ By 2024, cases reached 1,504, a 10% rise from 2021, indicating sustained upward trends.²⁵

Patterns in Hong Kong show physical abuse as the leading type (40% in 2024), followed by sexual abuse (35%) and neglect (22%), with psychological abuse under 1.1%.²⁵ This contrasts with international data where emotional abuse predominates (36%), suggesting under-detection in Hong Kong.²⁰ Girls comprised 61% of cases, mirroring global gender disparities.⁹ Age patterns favoured adolescents (12 to 17 years: ~46% in 2024), similar to international findings for abuse types.¹⁰ Districts like Yau Tsim Mong, Tuen Mun, and Yuen Long reported higher incidence (2.77, 2.26, and 2.18 per 1,000 in 2024), linked to socioeconomic factors.¹⁰ Children with disabilities faced elevated risks, rising from 24% in 2019 to 33% in 2024.¹⁰

Unlike declining U.S. physical abuse trends pre-COVID, Hong Kong saw increases in physical harm (from 389 in 2020 to 595 in 2024 in both genders).¹⁰ Neglect and multiple abuses also rose, paralleling pandemic-related global increases.²² However, Hong Kong's overall incidence (1.63 per 1,000 in 2024) is lower than global estimates, likely due to cultural stigma and reliance on agency data.¹⁰

Under-Reporting of Emotional Abuse Cases in Asia and Hong Kong

Emotional abuse, including constant criticism or rejection, is severely under-reported in Asia, including

Hong Kong, due to cultural norms viewing it as disciplinary rather than abusive.²⁶ A 2025 survey found most Hong Kong parents were unaware that repeatedly calling a child “stupid” or displaying emotional detachment can constitute child abuse.²⁷ In Hong Kong, psychological harm accounts for only 1% to 2% of CPR cases (e.g., 16 in 2024). This discrepancy stems from under-recognition, with public perception favoring physical over emotional forms, leading to lower reporting rates.²⁸ In broader Asia, Confucian values emphasise filial piety, normalising verbal harshness as parenting, exacerbating under-reporting.²⁹ A 2022 Chinese study noted emotional abuse’s links to violence without adequate support systems.³⁰ Addressing this requires education, as mandatory reporting may increase detection but risks overwhelming systems without cultural shifts.

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A 10-Year Epidemiological Report on Children with Established Child Abuse in the Child Assessment Service – 2014 to 2023

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Introduction

Children with neurodevelopmental conditions are more vulnerable to child maltreatment. Research has shown that children with disabilities are at least three times more likely to be abused than their typically developing peers.¹ In 2017, a five-year retrospective study was conducted to review the clinical characteristics and developmental profiles of established child abuse cases assessed at the Child Assessment Service (CAS) of the Department of Health in Hong Kong from 2009 to 2013.² The study identified Developmental Delay/Intellectual Disability (DD/ID) and Attention Deficit Hyperactivity Disorder or problem (ADHD) as the two major developmental disabilities among the victims of child maltreatment. Parents with psychiatric problems or substance abuse, single parents, low-income families, and children with siblings with developmental problems were associated with a higher risk for child maltreatment.

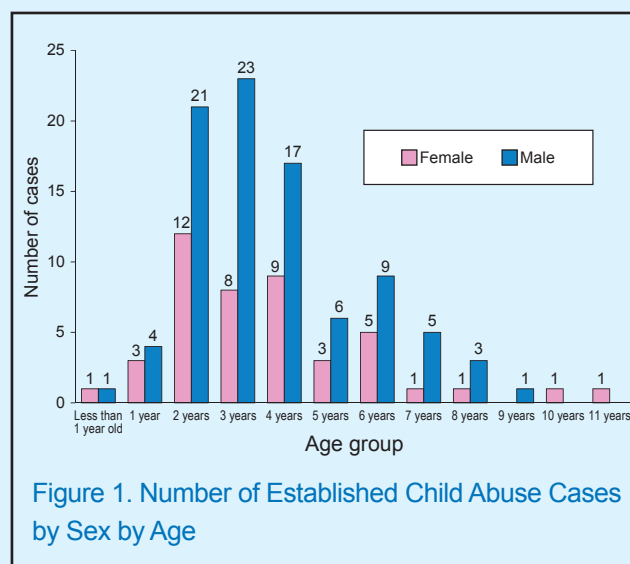
To obtain updated data reflecting the current situation, this retrospective report aims to examine the clinical characteristics and developmental profiles of children with established child abuse in the CAS over the past 10 years, from 2014 to 2023.

Method

All cases in the CAS with established child abuse codes (International Statistical Classification of Diseases and Related Health Problems, 10th Revision, ICD-10) from 2014 to 2023 were retrieved from the Clinical Information Management System 2 (CIMS2). The CAS assessed children from 0 to 12 years old with developmental, learning, or behavioural problems. All medical files were reviewed by medical professionals across seven Child Assessment Centres under the CAS. All cases with established child abuse codes that were reconfirmed by reviewing the medical files were included in this study.

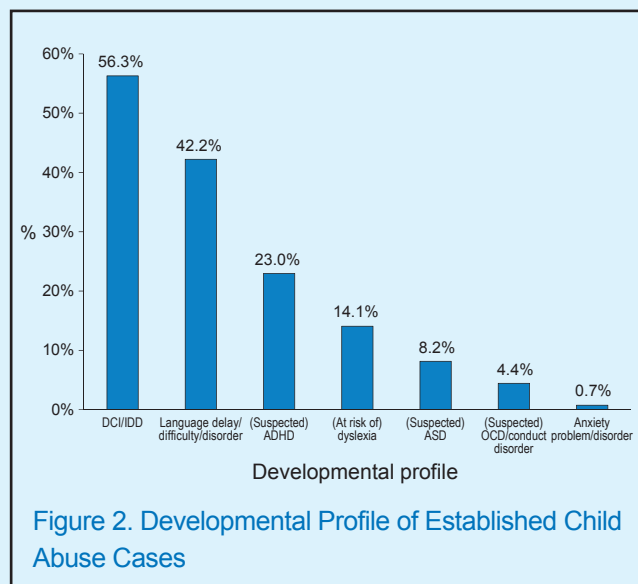
Results

A total of 135 cases (90 boys, 45 girls) were retrieved from CIMS2. The male-to-female ratio was 2:1. The mean age of these children at the time of assessment at the CAS was 4.3 years old, ranging from 0.9 years old to 11.1 years old (Figure 1).



The Developmental Profile

The most common neurodevelopmental conditions identified in these children with a history of established child abuse were Developmental Delay/Intellectual Developmental Disorder (56%), followed by Language Delay/Difficulty/Disorder (42%), and Attention Deficit Hyperactivity Disorder or problem (23%) (Figure 2).



Information Related to Child Abuse Incidents

The most prevalent type of child abuse in our study was neglect (n=95), accounting for 70% of all cases, followed by physical abuse (n=43, 32%). There were no victims of sexual or psychological abuse in this study. Five children experienced mixed types of abuse simultaneously, while three children experienced two confirmed episodes of maltreatment at different times (Table 1). Although exposure to domestic violence is not yet a formal category of child maltreatment in Hong Kong, based on the medical information available, we documented that five children were exposed to domestic violence in our study (Table 1).

Table 1. Types of Abuse and Concurrent Experience

Information	Number (Percent)
Type of Abuse	
Neglect	95 (70.4%)
Physical	43 (31.9%)
Psychosocial	0 (0%)
Sexual	0 (0%)
Mixed	5 (3.7%)
Concurrent experience	
Child experienced repeated episodes of abuse	3 (2.2%)
Child exposed to domestic violence apart from being abused	5 (3.7%)

In reviewing the medical files, we encountered various cases of neglect and physical abuse, each presenting unique challenges with different levels of severity.

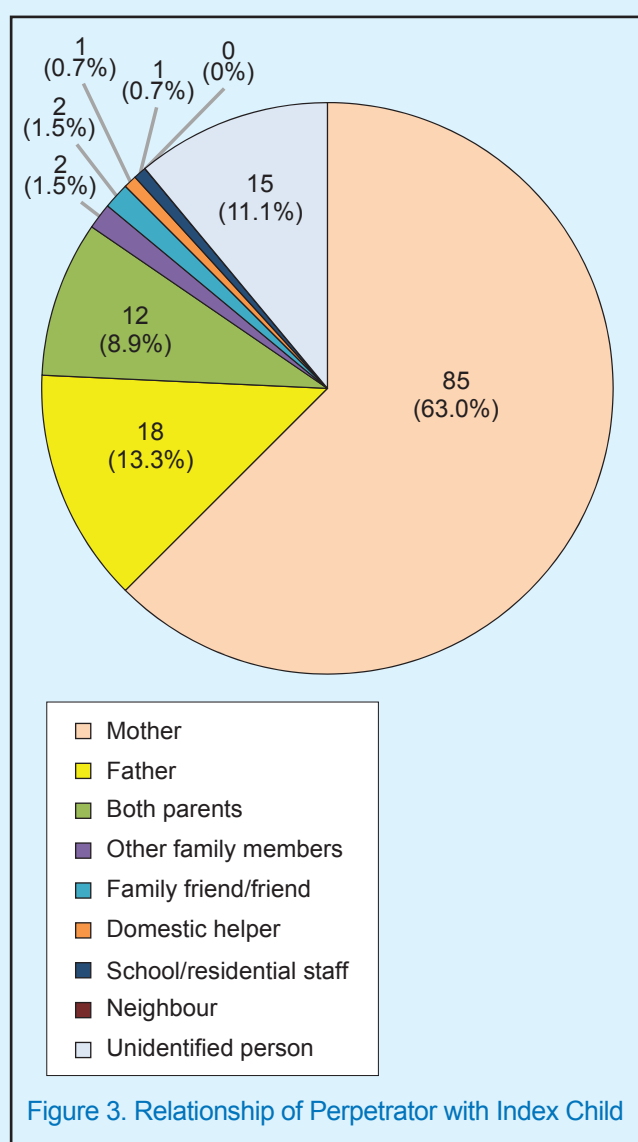
Most children with established child neglect were neonates who were found to have a positive result from urine toxicology screening tests that were done postnatally due to a maternal history of substance abuse. However, there were also cases where young children tested positive due to exposure to a home environment involving substance use by parents or family members.

Child neglect manifested in many ways. For instance, there were cases of babies or children being abandoned in a restaurant or library; found walking alone on the street; or being left at home unattended. Additional cases were reported by teachers or doctors, involving children with poor hygiene and failure to thrive. These children lacked basic needs such as food, shelter, and clothing. Other forms involved medical and educational neglect, such as failure to attend necessary medical check-ups and vaccinations, or frequent absences from school leading to inadequate educational support.

Physical abuse cases varied in severity and manifestations: from slapping or hitting with bare hands or objects resulting in bruises and lacerations to more severe instances that led to serious injuries, such as single or multiple fractures or burns. Notably, there were

nine extreme cases of shaken baby syndrome, which resulted in irreversible brain damage. They presented with seizures or loss of consciousness. Some children had retinal or intracranial hemorrhage detected from physical exams or imaging investigations. There was one case of physical abuse in a 3-year-old child resulting in liver laceration and bowel perforation, necessitating laparotomy repair.

The relationship of the perpetrator with the index child is shown in Table 2. Over 80% of the cases (n=115) were abused by one or both parents (Figure 3). There were 15 established cases of child abuse without identifiable perpetrators. With the majority of perpetrators being parents in our study, this finding aligned with data from the Child Protection Registry (CPR)³ and our previous study.²



Family and Social Background in Children with Established Child Abuse

Regarding family history, 63% (n=85) of children experiencing abuse were born into single-parent families. In addition, 59% (n=79) of abuse cases involved a history of maternal substance abuse, while 20% (n=27) were associated with paternal substance abuse. Maternal psychiatric illnesses were affecting more than a quarter of the abuse cases in our study. Around 6% of fathers had a psychiatric illness (Table 2).

Table 2. Family and social background in children with established child abuse

Family and Social Background	Number (Percent)
Maternal substance abuse	79 (58.6%)
Paternal substance abuse	27 (20.0%)
Maternal psychiatric illness	35 (26.0%)
Paternal psychiatric illness	8 (6.0%)
Sibling(s) with developmental problems	27(20.0%)
Single parent	85 (63.0%)
Teenage pregnancy	10 (7.4%)
CSSA*	39 (29.0%)
CCDS**	91 (67.4%)
Foster care	61 (45.2%)
Hostel/residential care	48 (35.6%)

*CSSA: Comprehensive Social Security Assistance Scheme

**CCDS: Comprehensive Child Development Service

It is noteworthy that a significant number of children were placed in foster or residential care. Among 135 children, 61 (45%) had a history of or were currently living with foster families, while 48 (36%) were placed in residential care hostels.

Discussion

The number of established child abuse cases rose from 45 cases over five years (2009 to 2013) to 135 cases over 10 years (2014 to 2023).² This rise did not account for potential cases that might have been omitted from our study due to a lack of recording in the CIMS2 system. Furthermore, cases in which child abuse was identified

only after our assessment would not routinely be brought to the attention of the CAS. As a result, these incidents would not be captured in the CIMS2 database. With reference to the CPR over the past 10 years, the total number of child abuse cases (below 18 years old) in Hong Kong rose from 856 in 2014 to 1,504 in 2024. Among the 1,504 cases in 2024, 809 (54%) were children below 12 years of age.^{3,4} About one-third of all child abuse cases involved children with disabilities according to the latest CPR.³ It should be noted, however, that the CAS only provides services for children up to 12 years of age; some older children with co-existing Special Educational Needs (SEN) and a history of child maltreatment are therefore managed by the Child Psychiatric Department of the Hospital Authority (HA) or by clinical psychologists within the Social Welfare Department (SWD).

The male-to-female ratio was 2:1, which was similar to our previous findings.² However, it contrasted with the reversed gender distribution with more girls than boys (60.5% vs 39.5%) in the 2024 CPR report.^{3,4} A possible explanation could be the association of males with SEN conditions, rather than with child maltreatment. Another possible explanation might be that sexual abuse was more common in females and adolescents in general,^{3,4} which fell outside the scope of service of the CAS, which serves children under 12 years of age.

In our patient group, child neglect has become the most common type of child abuse, compared to physical abuse in our previous study. This shift can be explained by improved practice by paediatricians, particularly the implementation of urine toxicology testing for neonates born to mothers with a history of substance abuse since the mid-2010s. A positive toxicology test in a newborn is considered a case of child neglect due to the mother's continued substance use during pregnancy. In such cases, social workers and paediatricians would immediately be involved in the planning of childcare and follow-up. These findings echoed data from the CPR of

the SWD. Most patients in the CAS are children under the age of 5. According to the 2024 CPR data, neglect (210 cases) was the most prevalent type of maltreatment in the 0–5 age group, followed by physical abuse (90 cases). On the other hand, more physical abuse cases were observed in children aged 6 to 14. The CPR also indicated a notable increase in neglect cases among newly registered cases in the SWD over the past decade, rising from 14% in 2014 to 22% in 2024.^{3,4}

Neglect is also recognised as the most common type of child maltreatment in North America. In the national data from the Public Health Agency of Canada, the most common primary categories of child maltreatment were neglect (34%) and exposure to intimate partner violence (34%), followed by physical abuse (20%).⁵ Recent data from the United States showed that for duplicate victims, 64.1% experienced neglect, while 10.6% experienced physical abuse.⁶

However, from the Australian Child Maltreatment Study (ACMS) in 2023, another recent large-scale national study in Australia quoted exposure to domestic violence (40%) as the most prevalent type of child maltreatment experienced in their country, followed by physical abuse (32%), emotional abuse (31%), and neglect being the least common type (9%). Caution should be taken when comparing this with our data, as the study targeted Australians aged 16 to 65 years and older to recall their childhood experiences.⁷

In many national datasets on child maltreatment, exposure to domestic violence has already been included as a type of maltreatment. It accounted for a significant percentage of the population and was often comorbid with child maltreatment. In Canada, exposure to intimate partner violence has already been well-documented in national data as a category of child maltreatment since the 2000s. Exposure to intimate partner violence and neglect represented the largest proportion (34% for each category) of child maltreatment

cases in that report. In addition, Canadian data on established maltreatment cases indicate that 46% of primary caregivers were victims of domestic violence, while 13% were perpetrators.⁵

Family poly-victimization is prevalent worldwide. A meta-analysis reported high co-occurrence rates (23%) of child abuse and neglect, intimate partner violence, and elder abuse.⁸ According to a Chinese study, family poly-victimization was associated with elevated rates of addiction (including gambling, smoking, alcohol, and substance dependence) and mental health conditions such as post-traumatic stress disorder and depression among parents.⁹ Early identification of one victim may help detect hidden victims in the same family. This family-based approach to managing families with family violence has been promoted in the social work field.

Recognising exposure to domestic violence as a distinct form of Adverse Childhood Experience (ACE) and the awareness of its association with child maltreatment are prerequisites to aligning child protection efforts with our counterparts in Western countries.

Child Protection Registry Statistic Report, 2024³ showed that the most common disability found in established child abuse cases was ADHD (15%), followed by Specific Learning Difficulties (SLD) (8%) and Autism (6%) in Hong Kong. In this CAS study cohort, Developmental Delay/Intellectual Disability, Language Delay/disorder, and Attention Deficit Hyperactivity Disorder or problem were the most common neurodevelopmental conditions with established child abuse. It should be noted that the majority of children in our service and in our cohort were 0 to 5 years old, while ADHD and SLDs are typically diagnosed in school-aged children over 6 years old. These conditions may be diagnosed and managed at a later stage during their school years by educational psychologists in the Education Bureau (EDB) or child psychiatrists in the Hospital Authority.

Regarding family demographics, 63% (n=85) of children experiencing abuse came from single-parent families. This figure was similar to our previous study in the CAS, which demonstrated that single parenthood greatly increased the likelihood of child abuse 47-fold (OR=47.11).² Parental substance abuse and psychiatric illness have been well-documented as risk factors for child maltreatment.¹⁰ In our study, 59% of the abuse cases involved a maternal substance abuse history, while 20% were associated with paternal substance abuse. Maternal psychiatric illness affected more than a quarter of the cases. These risk factors have consistently adversely affected our children over the years. In our previous CAS study, a logistic regression analysis revealed that maternal psychiatric illness (OR=14.00) and parental substance abuse (mother: OR=21.14; father: OR=8.17) increased the likelihood of child abuse.² However, a proportion of single mothers declined to provide information about fathers, which might have led to an under-reported rate of substance abuse and psychiatric illness in fathers in our study. In the United States, the annual Child Maltreatment Report in 2023 identified domestic violence (25%) and drug abuse (25%) of caregivers as the two most prevalent caregiver risk factors among child abuse victims.⁶

A significant number of children in the study were in foster and residential care. Among 135 children, 61 (45%) had a history of or were currently living with foster families, while 48 (36%) children were in hostels. It is well-documented that, during the first few years of life, children need to form attachments to their primary caregivers and develop regulatory capacities to manage their physiology, attention, emotion, and behaviour. However, children who have experienced child abuse and are subsequently placed in foster or residential care often experience secondary trauma due to placement instability. One recent systematic review stated that placement instability was often considered a predictor of externalising behaviour in children.¹¹ A large body of research has confirmed that children under institutional

care are at higher risk of having developmental delay, inattention, and indiscriminately sociable behaviour.¹² While the broader impacts of foster and institutional care warrant further discussion, it is apparent that efforts to promote attachment and ensure placement stability are crucial to safeguard a positive developmental trajectory for the child.

Children with neurodevelopmental conditions face a higher risk of child maltreatment. Conversely, experiences of child abuse and neglect can contribute to or exacerbate developmental and behavioural problems. Recognising this bidirectional relationship is crucial for developing more holistic prevention and intervention strategies that address both the vulnerabilities associated with neurodevelopmental conditions and the damaging effects of maltreatment.

Conclusion

This study highlighted the persistent vulnerability of children with neurodevelopmental conditions to maltreatment. The number of child abuse cases has increased over the past decade, with neglect emerging as the most common type of abuse. Strengthening documentation of children's developmental profiles and social histories, including exposure to domestic violence, could facilitate early identification and enable family-based interventions to break cycles of poly-victimization. Furthermore, targeted support for high-risk families—parental substance abuse, mental illness, single parenting, foster and residential care—remains essential. It is hoped that this can increase awareness of both child maltreatment and neurodevelopmental conditions, and provide further insight into future directions in child protection.

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When Neurodevelopmental Disorders Meet Childhood Trauma: Assessment and Management

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Background and Prevalence

The number of students with neurodevelopmental disorders (NDD) and Special Educational Needs (SEN) in Hong Kong has been increasing in recent years.¹ Research has consistently highlighted that children with NDDs are at an elevated risk of experiencing maltreatment compared to their typically developing peers.^{2–4} Local findings confirmed that around 32% to 60% of school-aged children with NDDs had experienced child maltreatment.⁵ In a local statistical report of the Child Protection Registry in 2024,⁶ among the 1,504 newly registered cases experienced harm or maltreatment, 33% (497 cases) of the children were reported to have one or more type of disability. Overall, 15.4% (231 cases) of the children were reported to have Attention Deficit Hyperactivity Disorder (ADHD), 7.8% (118 cases) of the children were reported to have Specific Learning Difficulties, and 6.4% (97 cases) of the children were reported to have autism.

The contributing factors to this increased risk were documented to be related to the complexities of NDDs' needs, social isolation, and their communication difficulties, which hindered their ability to seek help or to report or even recognise abusive events.⁷ Moreover, research indicated that caregivers of children with SEN experienced greater caregiving demands and heightened stress levels, which might lead to maladaptive coping mechanisms and potentially result in abusive behaviours.^{8,9} Further, previous findings suggested that traumas impacted and altered the structural and functional brain regions—specifically the prefrontal cortex, hippocampus, and amygdala—and pathways involved in emotion and motivation processing, as well as the regions mediating executive functioning. This might exacerbate symptoms, including cognitive and behavioural challenges of NDDs.^{10–12} Understanding these dynamics is crucial for delivering accurate assessment and effective management strategies, safeguarding the well-being of children with NDDs.

Assessment

When a child with a known or suspected trauma history is referred for psychological assessment for NDD, there are considerable diagnostic challenges, the first one being symptom overlap. It is well-documented that symptoms of trauma can overlap with a number of common NDDs, such as Autism Spectrum Disorder (ASD), Attention Deficit Hyperactivity disorder (ADHD), and other common psychiatric disorders, such as anxiety, depression, Post-Traumatic Stress Disorder (PTSD), and Fetal Alcohol Spectrum Disorder (FASD) (Figures 1 and 2).¹³

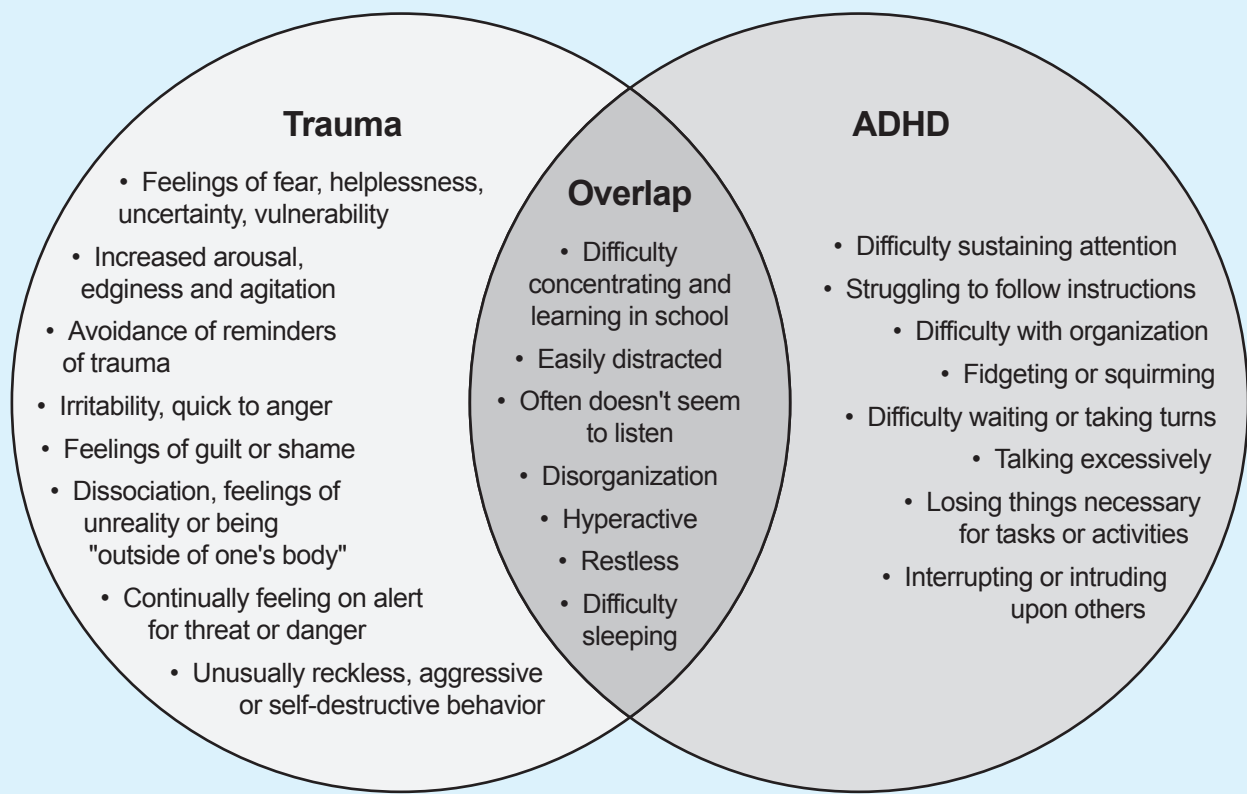


Figure 1. Symptom Overlap between Trauma and ADHD

Adapted from: Forkey HC, Griffin JL, Szilagyi M. Childhood trauma & resilience: a practical guide. Itasca, IL: American Academy of Pediatrics; 2021. Figure 9-1 Overlap of trauma & ADHD symptom, p 102.

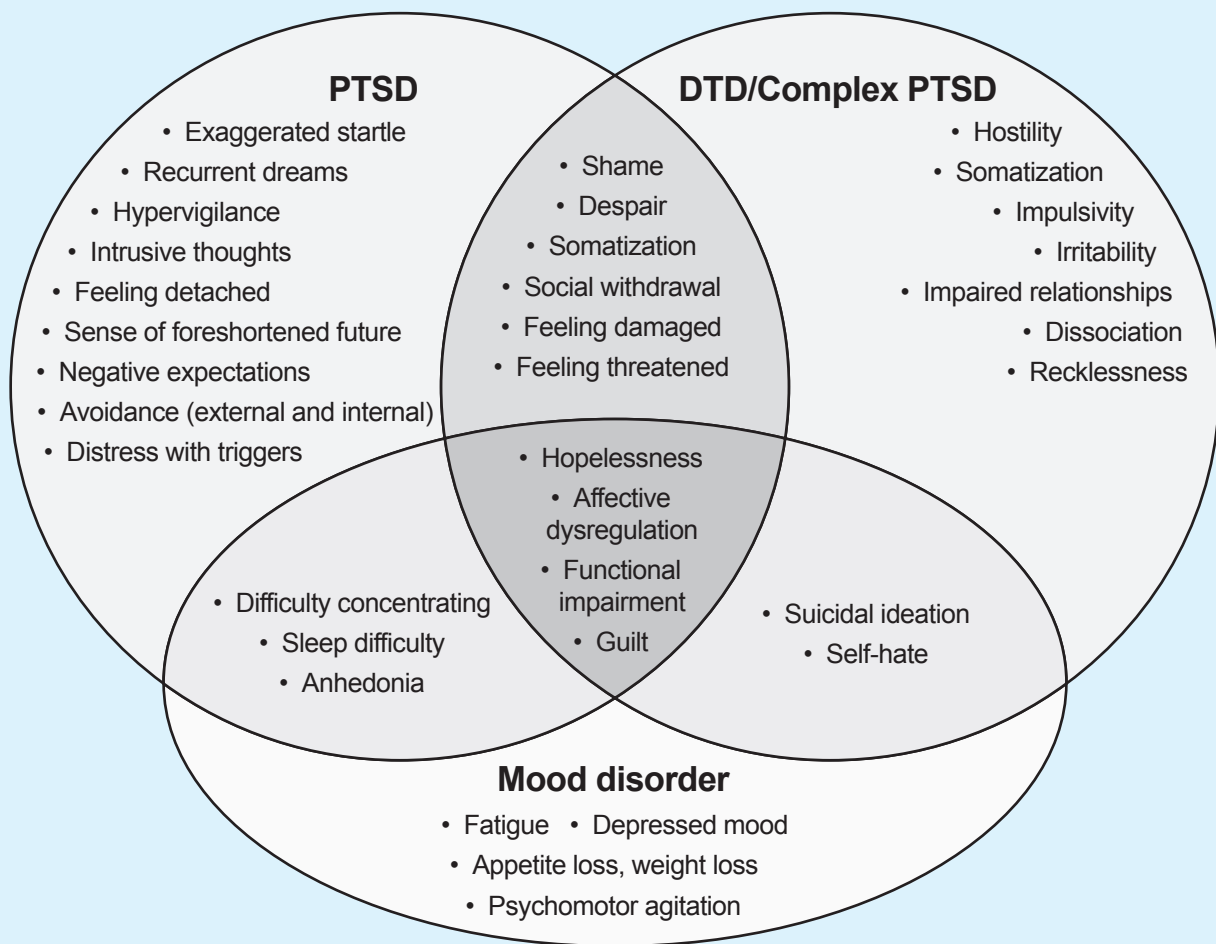


Figure 2. Symptom Overlap between Mood Disorder, PTSD and Developmental Trauma Disorder (DTD)/ Complex PTSD

Adapted from: Forkey HC, Griffin JL, Szilagyi M. Childhood trauma & resilience: a practical guide. Itasca, IL: American Academy of Pediatrics; 2021. Figure 9-2 Overlap of trauma and mood disorder symptoms, p 102.

Another diagnostic challenge would be the absence of key history. For children who are under foster care, institution care, adoption, non-parental care, or frequent changes of carer, all relevant history that could be important might simply not be available to the clinician. Even in some instances when the children are brought by their caregivers for assessment, caregivers who have mental health issues, including substance abuse or postpartum depression, might withhold sensitive information due to shame or embarrassment, fear of blame, or fear of family welfare agency involvement. Therefore, caregivers might not reveal their own struggles in providing adequate care, especially during the child's infancy or early toddlerhood. Without a definite positive history of trauma incident, trauma- and stress-related disorders (TSRD) such as Reactive Attachment Disorder (RAD) and Disinhibited Social

Engagement Disorder (DSED) could not be established.

Despite the potential overlap, the literature indicates that trauma symptoms would usually seem more reactive than the symptoms of NDDs. Individuals experiencing trauma often exhibit exaggerated emotional and behavioural responses to environmental stressors, frequently influenced by perceived threats or reminders of traumatic events, contrasting with the stable, pervasive impairments characteristic of ASD or ADHD. Besides, trauma-related symptoms demonstrate notable changes over time, influenced by developmental progression, environmental stability, and therapeutic interventions. Unlike the relatively stable features of ASD or ADHD, trauma symptoms can markedly improve or worsen depending on caregiving consistency, environmental safety, and intervention.^{14–15}

Considering the complexities of symptom presentation in children with NDDs and trauma history, a multi-method and multi-informant assessment practice is usually proposed. For instance, Michna¹⁶ created a practitioner assessment guide for childhood trauma and ASD to better support clinicians in ensuring a comprehensive evaluation is conducted.

Although currently, a gold-standard assessment protocol for identifying problems related to TSRD is not available,¹⁵ researchers have been working hard to find ways to aid the differential diagnosis. One such effort was the development of the Coventry Grid, which includes clinical observation as part of the assessment in eight key domains (flexible thinking and behaviour, play, social interaction, mind reading, communication, emotion regulation, executive function, and sensory processing) and has recently gained support to be regarded as an evidenced-based tool.¹⁷ The tool aims to aid clinicians in discriminating between autism and attachment disorders. Nevertheless, as research suggested that given the different etiologies behind ASD and TRSD, it is possible that a child could have both disorders.¹⁸ For these particularly complex cases, the team behind the Coventry Grid further proposed an observational technique, called Live Assessment, to elicit crucial information for differential diagnosis, where two assessors create social dilemmas through informal conversation and play or make jokes, and then observe the child in the process. As such, the Coventry Grid and the Live Assessment could help clinicians decide whether the diagnosis is ASD, RAD / DSED, or both.

Besides, standardised questionnaires completed by caregivers would be a useful tool to supplement interviews and observations in the assessment process. There are a few standardised questionnaires available for assessing trauma in children, for instance, Trauma Symptom Checklist for Children (TSCC), Trauma Symptom Checklist for Young Children (TSCYC), Childhood Trauma Questionnaire (CTQ), UCLA

Post-Traumatic Stress Disorder Reaction Index (UCLA-PTSD-RI). Nevertheless, these validated instruments are intended to be used with typically developing children, and it is not yet known whether they are equally applicable to populations with NDDs.

As these questionnaires are all self-report in nature, some research has suggested that children on the autism spectrum tend to respond to questionnaires in a literal manner or that they tend to under-report emotional experiences, which might thus impact the questionnaires' reliability. Therefore, for children with ASD, clinicians could consider using The Trauma Symptoms Investigation Form in Autism Spectrum Disorders (TIF-ASD). The tool was designed to examine manifestations of trauma symptoms in children with ASD in five categories (social and communications skills, behavioural problems, stereotypical and ritualistic behaviour, self-care skills and vegetative symptoms), in which increase, decrease and no change responses were reported so that changes and onset of symptoms could be identified.¹⁹ Though it has not yet been validated, it could provide additional information about a child's functioning.

In addition, the Stress Survey Schedule (SSS) was designed to measure stress in individuals with autism and other developmental disabilities. Although not a measure of trauma specifically, the SSS may be useful in a comprehensive evaluation to understand stress-related behaviours in an individual with an ASD. Integrating these questionnaires designed for individuals with NDDs into structured diagnostic tools such as the Autism Diagnostic Observation Schedule (ADOS-2) and the Autism Diagnostic Interview-Revised (ADI-R) might provide richer clinical information.

To conclude, the differential assessment of trauma and NDDs requires special considerations. There is a pressing need for more research examining the relationship between NDDs and trauma, as well as

developing more effective assessment methodology for establishing evidence-based practices. Without an appropriate method of assessment, meaningful treatment or interventions could not follow. Moreover, ongoing and developmentally informed reassessments and longitudinal evaluations are imperative to accurately capture symptom trajectories and guide effective interventions.²⁰

Management

As most children with NDDs and trauma experiences have complex treatment needs, prioritising treatment goals is of utmost importance. Prock and Fogler¹⁴ highlighted that the first and foremost goal in management for any traumatised child is to address safety and anxiety concerns via such strategies as distress tolerance and grounding, such that the child feels comfortable and safe in their systems (home, school, etc.), before tackling other learning or behavioural challenges. Subsequent management should then leverage the leading conceptualisation upon a comprehensive assessment.

Collaboration and co-management with different service providers are thus essential to cater for the child's evolving treatment needs. For instance, for some children with ASD, autistic behaviour would be the main concern, while for others it could be related to their psychosocial needs, daily living skills (such as sleep and diet, which could be uniquely disrupted in the NDD population) or other trauma-related conditions, e.g., PTSD or depression. A similar approach could be taken when deciding on the use of pharmacological intervention, as proposed by Boodoo et al.²¹ in managing children with co-existing ADHD and trauma experiences. They proposed a treatment algorithm starting with the option that could offer the best risk-benefit ratio, and then ADHD- or trauma-targeted medication or psychotherapy could be added or removed according to the progression of the symptomatology.

In terms of specific treatment models for managing post-traumatic responses in children, well-documented evidence-based interventions for the general paediatric population are available.²² Trauma-focused cognitive behaviour therapy (TF-CBT) is a short-term treatment model for children with trauma experiences as well as their caregivers, encompassing eight components: psychoeducation and parenting skills, relaxation, affective expression and regulation, cognitive coping, trauma narrative development and processing, in vivo gradual exposure, conjoint parent-child sessions, as well as enhancing safety and future development.

Various recommendations were drawn up to tailor the treatment for application in youths with intellectual disability and ASD.^{23–25} One of the common strategies suggested is the adjustment to session structure, e.g., a longer course of treatment with shorter and more frequent sessions as well as slower pacing of delivery and use of repetition. The use of simpler language, visual aids, or augmentative and alternative communication could be considered to accommodate individuals' language difficulties, e.g., when assisting them in the cognitive restructuring exercise.

Systematic facilitation of generalisation and maintenance of treatment effects would often be needed in children with NDDs due to their cognitive challenges, which can be promoted by the use of a wider range of examples as well as the provision of ongoing opportunities in a plethora of situations for exposure and practice of skills. In addition, the increased involvement of caregivers could help reinforce information and skills learned in the sessions. Clinicians can also utilise the child's preoccupation or special interests to facilitate the understanding of therapy concepts. Also, attention should also be given to how the child's restricted and repetitive behaviour may change in response to emotional distress during therapy, and treatment work might be required in reducing the severity and frequency of these behaviours back to baseline.

Eye Movement Desensitization and Reprocessing Therapy (EMDR) is another structured psychotherapy for managing post-traumatic symptoms in children. It uses an eight-phase protocol that includes history taking, preparation stage, trauma processing, and re-evaluation. During the processing stage, dual attention bilateral stimulation is combined with the emotional activation of distressing memories to facilitate the processing of those memories. Sopena et al.²⁶ conducted a systematic review on the use of EMDR in the NDD population, and it was concluded that while it was encouraging that all studies reported a reduction in post-traumatic symptoms, more robust research examining the specific effectiveness of EMDR in this target group would be needed.

Integrative approaches have been emerging to manage more complex developmental trauma in children. One such model is the Attachment, Regulation, and Competency (ARC) framework, which focuses on building attachments, increasing self-regulation, and facilitating the child's self-efficacy and ability to overcome future challenges.²⁷ The child's attachment system is considered a foundation in promoting recovery, as the caregiving relationships in these children are often disrupted which, in turn, affects their basic sense of safety and self-identity. Preliminary evidence from the programme evaluation by Arvidson et al.²⁸ suggested that the model could be effective in treatment for young children with complex behavioural, psychological, and relational disturbances associated with exposure to prolonged abuse and neglect in a large community-based mental health service. While the results could provide some guidance on possible adaptations and considerations, research on the application of the ARC model in the NDD population is warranted as empirical evidence is lacking to date.

Conclusion

The intricate relationship between childhood trauma and NDDs highlights a complex interplay with significant implications for psychological assessment and

management. When conducting an assessment for a child with a NDD, it is important to be mindful of the possible overlapping symptomatology between NDDs and childhood trauma, while taking into account their unique vulnerabilities.^{24,29} Ongoing assessment and regular communication with the carers of the children are essential to understand their needs, identify their difficulties, and monitor their progress. Also, a holistic, individualised, and trauma-informed approach to formulate strategies to lessen the adverse effects on their development must be adopted. Cross-sectoral collaboration among different professionals (paediatricians, nurses, clinical psychologists, speech therapists, occupational therapists, physiotherapists, social workers, and schools) in the medical, social, and educational fields is crucial in helping children recover from trauma.

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Scientific Presentations

Autism Spectrum Disorder – An update on early diagnosis and intervention on 8 July 2026 at Annual Scientific Meeting of the Hong Kong College of Paediatricians Foundation by Dr LIU Ka-yee, Stephenie.

Sleep hygiene for staff and parents of kindergarten on 6 June 2026 at Keysteps @ JC, The Hong Kong Jockey Club by Dr CHU Wing-sze, Dorothy.

Survey on anxiety problem among students with ASD and school refusal issues on 30 May 2026 at International Symposium on Students with SEN and Neurodiversity: New Directions in Research and Practice, The Education University of Hong Kong by LAM Ling, Lorinda.

Evaluation of handwriting for preschool children in Hong Kong on 30 May 2026 at Children with dysgraphia: assessment, intervention and research, City University of Hong Kong, Neuromotor.AI, GBA Rehabilitation Consultancy Limited by TSE Fung-ling, Linda.

Autism Spectrum Disorder (“ASD”) in female population on 29 May 2026 at The Hong Kong Association for Child and Adolescent Psychology and Psychiatry by SHEH Ching-shan, Annie.

Supporting the Ethnic Minority (EM) children and families in Hong Kong on 6 May 2026 at The Hong Kong Society of Child Neurology and Developmental Paediatrics by Dr CHOW Chin-pang.

Common developmental and behavioural disorders in children on 27 March 2026 at Educational psychologist trainees of Master of Arts in Professional Educational Psychology Programme, Faculty of Education, The Chinese University of Hong Kong by Dr LIU Ka-yee, Stephenie.

Supporting executive functioning in children with autism spectrum disorder: evidence to inform environmental design on 13 Mar 2026 at RCATech Seminar: Environmental Design for People with Autism Spectrum Disorder, Research Centre for Assistive Technology and the Department of Rehabilitation Sciences, The Hong Kong Polytechnic University by TAM Ka-yan.

Common developmental problems: developmental delay, language delay, dyslexia, ADHD and ASD on 27 Jan 2026 at Post-registration Certificate Course in Child & Adolescent Nursing 2025/26 by Dr CHAN Wai-man.

Artificial intelligence and mental health: exploring the boundaries of technology, ethics and humanity on 24 Jan 2026 at Hong Kong University Graduates Association by LAU Man-kuen, Apple.

Train-the-Trainer Programme in using the Hong Kong Hospital Communication Toolkit in supporting children and adolescents with complex communication needs on 16 January 2026 at The 4th East Asian Regional Conference on Augmentative and Alternative Communication: AAC in education and everyday life in Hangzhou, China by Hangzhou, China by LAM Ling, Lorinda.

Certification workshop of Copying Speed Test for Hong Kong Secondary Students (CST-HK) on 9 Jan 2026 at Hong Kong Occupational Therapy Association by CHUI Mun-yee.

Registration card for people with disabilities and its connection to children with Developmental Language Disorder (DLD) on 2 Dec 2025 at The Hong Kong Association of Speech Therapists Limited by NG Kwok-hang, Ashley.

Diploma in Special Education: Special Learning Needs Education Course in Children with Autism Spectrum Disorder on 13 Nov 2025 at HKU School of Professional and Continuing Education by LAM Ling, Lorinda.

Updates on evidence-based management of Autism Spectrum Disorder on 8 Nov 2025 at HKCNDP Annual Scientific Meeting 2025: Updates on Autism Spectrum Disorder, The Hong King Society of Child Neurology & Developmental Paediatrics (HKCNDP) by Dr HUNG Ching-ngar, Vanessa.

Journey of students with Autism Spectrum Disorders and anxiety: case studies and insights on 8 Nov 2025 at HKCNDP Annual Scientific Meeting 2025: Updates on Autism Spectrum Disorder, The Hong King Society of Child Neurology & Developmental Paediatrics (HKCNDP) by LAM Ling, Lorinda.

Intellectual assessment and assessment of adaptive functioning for children with physical and multiple disabilities on 5 Nov 2025 at Department of Psychology, The University of Hong Kong by POON Wai-kei, Vitti.

Ocular misalignment and visual perception, eye examination of the special needs population on 14 Oct 2025 at School of Optometry, the Hong Kong Polytechnic University by Dr LEE Mun-yau, Florence.

General approach to clinical assessment of children: assessment of behavioural, social and emotional aspects of children on 8 Oct 2025 at Department of Psychology, The University of Hong Kong by TSANG Yee-ha, Lucia.

Administration of WPPSI on 3 Oct 2025 at MSocSc (Clin.Psy.) program, Department of Psychology, The University of Hong Kong by TSANG Fung-king.

Local care pathway and service sectors for aural rehabilitation on 29 Sep 2025 at Faculty of Medicine, Department of Otorhinolaryngology, Head and Neck Surgery, Institute of Human Communicative Research, The Chinese University of Hong Kong by LI Chi-wai, Cherry.

Early screening and diagnosis of autism spectrum disorder on 23 Sep 2025 at Guangdong Provisional Health and Health Appropriate Technology Promotion Project: A workshop on the assessment and care of high risk neonates-a multidisciplinary approach, The University of Hong Kong-Shenzhen Hospital by LAM Ling, Lorinda.

Early screening and diagnosis of autism spectrum disorder on 23 Sep 2025 at Guangdong Provisional Health and Health Appropriate Technology Promotion Project: A workshop on the assessment and care of high risk neonates-a multidisciplinary approach, The University of Hong Kong-Shenzhen Hospital by Dr LIU Ka-yee, Stephenie.

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Basic Medical Education Course on 20 Sep 2025 at Hong Kong College of Paediatricians by Dr LIU Ka-yee, Stephenie.

Speech therapy services in Child Assessment Service on 12 Sep 2025 at Faculty of Education, Human Communication, Learning, and Development, the University of Hong Kong by CHAN Yvonne Binva.

Assessment and support for children with Acquired Cognitive Impairment (ACI) in the Child Assessment Service with school-based Eps (SBEPs) on 4 Sep 2025 at Educational Psychology Service Section, Education Bureau by HO Kit-sum, Kitty.

Assessment and support for children with Acquired Cognitive Impairment (ACI) in the Child Assessment Service with school-based Eps (SBEPs) on 4 Sep 2025 at Educational Psychology Service Section, Education Bureau by Dr HUNG Ching-ngar, Vanessa.

Assessment and support for children with Acquired Cognitive Impairment (ACI) in the Child Assessment Service with school-based Eps (SBEPs) on 4 Sep 2025 at Educational Psychology Service Section, Education Bureau by POON Wai-kei, Vitti.

Assessment and support for children with Acquired Cognitive Impairment (ACI) in the Child Assessment Service with school-based Eps (SBEPs) on 4 Sep 2025 at Educational Psychology Service Section, Education Bureau by TANG Ka-ming.

Assessment and support for children with Acquired Cognitive Impairment (ACI) in the Child Assessment Service with school-based Eps (SBEPs) on 4 Sep 2025 at Educational Psychology Service Section, Education Bureau by TAM Ka-yan.

Undergraduate: Neuropsychology from 1 Sep 2025 – 31 Dec 2025 at Department of Psychology, The Chinese University of Hong Kong by SZE Lai-man.

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