



# CASER

Issue 11, December 2014

## Child Assessment Service Epidemiology and Research Bulletin

### CAS Epidemiological Data on Anxiety Disorders and Anxiety Problems from 2012-2013

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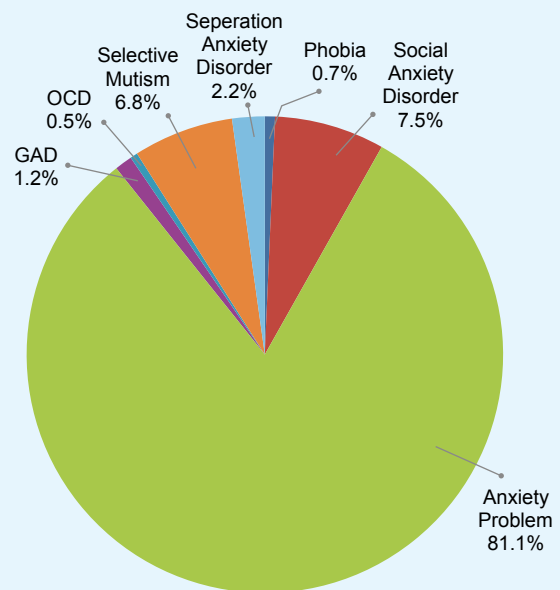
The present epidemiological report on children with Anxiety Disorders and Anxiety Problems includes data collected in CAS during the two years of 2012 and 2013. The term "Anxiety Disorders" used in this paper includes Generalized Anxiety Disorder, Separation Anxiety Disorder, Obsessive Compulsive Disorder, Social Anxiety Disorder, Selective Mutism and Specific Phobia. For "Anxiety Problems", we refer to those cases which meet the criteria of sub-clinical symptoms of Anxiety Disorders.

#### Incidence Rate

The number of newly diagnosed children with Anxiety Disorders / Problems diagnosed at Child Assessment Service (CAS) of the Department of Health appears to be rather stable, with 300 children in 2012 and 270 in 2013, i.e., about 3% of the total new referrals to our Service. Over 80% of these children were assessed to have sub-clinical symptoms of Anxiety Disorders, i.e., Anxiety Problem. As an internalizing problem, features of Anxiety Disorders are not easily noted by the parents or detected by the clinicians, namely paediatricians and clinical psychologists, during the initial assessment sessions. In cases where some signs of anxiety were detected and further investigation was warranted, a conservative conclusion of "Anxiety Problem" was made, pending further observation or more thorough evaluation at child psychiatric centres. Among the 20% of cases that met the diagnostic criteria of Anxiety Disorders, Social Anxiety Disorder and Selective Mutism accounted for the majority - approximately 14% of the newly diagnosed cases (see Figure 1). This is

probably because of the relatively more obvious behavioural manifestations of these two anxiety types. In fact, the persistent reluctance of children with social anxiety to speak up in front of strangers, and those with selective mutism to speak outside of the home environment is so impairing to their social functioning that motivates parents to seek services for assessment and intervention.

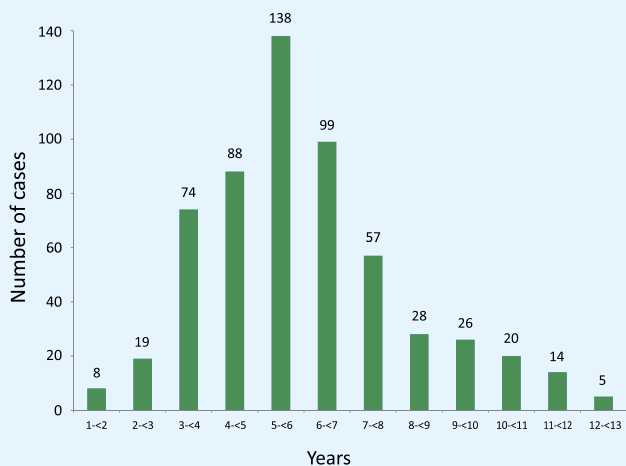
Figure 1. Type of Anxiety Disorders diagnosed in CAS



#### Age at Diagnosis

The majority (approximately 70%) of the 670 cases in CAS were diagnosed between 3 to 8 years old, with a peak at the ages between 5 to 6 years old (see Figure 2). At present, we do not have local data about the age of onset for childhood anxiety. According to the national survey of adolescent mental health in the US,<sup>1</sup> the median age of onset for anxiety disorder was 6 years old. This alerts us as clinicians in child assessment settings to pay attention to children's emotional aspects in clinical interviews with parents. It also suggests that we should pay more effort in promoting public education on children's mental health.

Figure 2. Age at which diagnosis was made



### Gender Ratio

In the present data set, the male to female ratio diagnosed with Anxiety Disorders / Problems is approximately 1 to 1 (see Table 1). The finding is consistent with statistics reported elsewhere with clinical samples, for which the gender ratio is equivalent for Separation Anxiety Disorder and equivalent or slightly higher in male for Social Anxiety Disorder.<sup>2</sup> Meanwhile, anxiety disorder was more common in female than male (i.e., about 2 to 1) in community samples.<sup>1,3</sup>

Table 1. Number of children diagnosed with Anxiety Disorders by sex

	2012 n (%)	2013 n (%)
Female	146 (48.7)	129 (47.8)
Male	154 (51.3)	141 (52.2)

### Comorbid Conditions

Among these 570 children diagnosed with Anxiety Disorders / Problem, common comorbid conditions include Autism Spectrum Disorder (ASD) (13.5%), Attention Deficit / Hyperactivity Disorder (ADHD) (9%) and Dyslexia (8%). In the meta-analysis by Steensel, Bögels & Perrin (2011), around 40 % of young people with ASD had at least one comorbid DSM-IV anxiety disorder with the most common type being specific phobia. Although both anxiety and ASD groups showed anxious behaviours, the nature of specific phobia in children with ASD were rather peculiar, including fear of toilets, noise producing tools such as hair dryers, vacuum cleaners etc., large crowds and closed spaces etc. Meanwhile, as reported by Jensen et al<sup>4</sup> and Spencer et al,<sup>5</sup> ADHD and anxiety disorders are common comorbid conditions with estimated comorbidity rates of 20% to 40%. While ADHD is a common developmental disorder diagnosed in our service, the need to exclude the possibility of comorbid Anxiety Disorder / Problem should be

included in our clinical practice. As for dyslexia, there are not many studies on the relationship between dyslexia and Anxiety Disorders. Yet, it is believed that children with dyslexia are vulnerable to emotional consequences such as anxiety and assessment of their emotional aspect as part of the comprehensive assessment is highly recommended.

### Sources and Reasons of Referral

Similar to the other cases referred to Child Assessment Service, Maternal and Child Health Centre of the Department of Health and private practitioners are the two major referral sources (see Table 2). For the reasons of referral, the most common one is emotional/behavioral difficulties (55%). Other presenting problems include developmental delay (13%), language problem (12%), learning problem (8%) and motor problem (6%).

Table 2. Number of children diagnosed with Anxiety Disorders by source of referral

	2012 n (%)	2013 n (%)
<b>Department of Health</b>		
MCHC	143 (47.7)	141 (52.2)
Student Health Service	4 (1.3)	3 (1.1)
<b>Private Practitioner</b>	95 (31.7)	78 (28.9)
<b>Educational Department</b>		
Educational Psychologist	6 (2.0)	5 (1.9)
<b>Hospital Authority</b>		
Paediatrics	30 (10.0)	17 (6.3)
GOPC	65 (21.7)	10 (3.7)

Since the category of “emotional/behavioral difficulties” includes also ASD, ADHD, oppositional defiant disorder, temper tantrum and other related behavioral problems other than Anxiety Disorders, 57 out of the 78 cases diagnosed with Anxiety Disorders / Problems in one child assessment centre (i.e., CKCAC) in 2012 and 2013 were sampled and analyzed in detail. It is found that among these 57 cases, only 6 (10.5%) of them were referred for suspected Anxiety Disorder / Problem. Another 7 (12%) were described as having anxious behaviors in their referral letters. In other words, in the majority of the referrals, the referrer did not mention or notice any anxiety behavior of the child. Such findings may reflect a lack of awareness of anxiety symptoms in children among the professional referrers. Meanwhile, parents might overlook children’s anxious emotions which were more subtle and less concerned by parents in comparison with children’s learning problems or other externalizing behaviors. Among the 57 children, only 8 parents (14%) presented concerns about child’s anxiety problem and 17 (30%) mentioned about anxious behaviours in their account of major concern about the child. Such finding calls for the need of more public education on children’s mental and emotional health so as to increase awareness of early anxiety symptoms among young children.

In this group of 57 children, 6 were initially referred for suspected ASD and among them, 3 were finally diagnosed as having Social Anxiety Disorder. Such confusion between social anxiety and ASD might be related to the similar manifestations of the two disorders in term of impairment in the quality of social interaction and communication. For example, parents might describe their socially anxious child as “having few friends”, “avoiding eye-contact”, “not playing with other children”, “not greeting with others”, “refusing to answer questions” etc. These behavioral characteristics might easily be misunderstood as features of ASD. Nevertheless, while deficit in social communication is an essential feature of ASD, individuals with Social Anxiety Disorder typically have age-appropriate social relationships and social communication capacity. Also, their difficulties in interacting with unfamiliar people are mainly related to their underlying fear of negative evaluation and that their social avoidance and isolation may be due to fear of rejection or peer judgment. Thus, it was suggested by Kreiser and White<sup>6</sup> that clinicians should consider the processes underlying social avoidance to determine whether the presenting symptoms were better accounted for by ASD or social anxiety.

## Conclusion

The present study suggests that Anxiety Disorders constitute relatively small portion of our total caseload at Child Assessment Service. This may partly be related to the internalizing nature and the subtle presentation of the disorder. Moreover, over 80 percent of our diagnosed cases were concluded with sub-clinical symptoms of Anxiety Disorders, i.e., Anxiety Problems. Meanwhile, Social Anxiety Disorder and Selective Mutism presented with relatively more obvious behavioral manifestation were the two common Anxiety Disorder types diagnosed by our paediatricians and clinical psychologists. In view of the common comorbidity childhood anxiety with developmental disorders of ASD and ADHD, and the possible confusion of symptoms presented by ASD and social anxiety, careful investigations of children’s emotional problems should be included in our clinical practice. Furthermore, in the coming future, more work has to be done on public education so that sensitivity to children’s emotional health and problems can be raised. Early preventive work and identification of problems in childhood will certainly help to promote the general mental health of the society in the long run.

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## Preliminary Findings of an Early Intervention Program for Preschoolers with Anxiety Problems in Child Assessment Service

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## Background

Anxiety Disorder represents one of the most common mental disorders. Previous research has found that worldwide lifetime prevalence rate for any Anxiety Disorder is 16.6%.<sup>1</sup> The age of onset for Anxiety Disorders has been documented to be relatively early in childhood as compared to other mental disorders.<sup>2</sup> Childhood Anxiety Disorders cause significant impairment in one’s social, familial, and academic functioning. Moreover, childhood Anxiety Disorders often persist into adolescence and even adulthood if untreated. Given the above, early prevention for Anxiety Disorders is deemed necessary.

Previous studies have identified several risk factors for the development of Anxiety Disorders.<sup>3</sup> Among these factors, an inhibited temperament, which is characterized by fearfulness in novel situations and avoidant coping style, has been found to play a central role in developing Anxiety Disorders in later years. Other risk factors include high parental level of anxiety, overprotective parenting style, and vicarious and instructional learning of avoidant behavior from parents. Rapee<sup>3</sup> postulated that the latter factors interacted with one’s inhibited temperament, leading to a higher chance of developing Anxiety Disorders.

Based on the risk factors identified, Rapee and his team have developed an early intervention program targeting at parents of preschoolers who are at risk of developing Anxiety Disorders (the program is later finalized as the Cool Little Kids Anxiety Prevention Program). Pilot studies have been run with some

encouraging findings. For example, mothers reported a decrease in their children's withdrawn behaviors and anxiety symptoms that continued over the next six months after receiving the early intervention program.<sup>4</sup> In an efficacy study, children whose parents were randomly assigned to the intervention program showed significantly lower rate of Anxiety Disorders at 12-month follow-up and 36-month follow-up than control respectively.<sup>5,6</sup> Currently, the research team is undergoing a randomized controlled trial of the early prevention program at a population level in Australia.<sup>7</sup>

## The Program

The Cool Little Kids Anxiety Prevention Program was published in 2010.<sup>8</sup> With the authors' permission, both the therapist's and parent's manuals were translated into Chinese by a group of clinical psychologists within the Child Assessment Service (CAS) of Department of Health in Hong Kong in 2012. The program was designed to be conducted with the parents of preschoolers who are at risk of developing Anxiety Disorders in the later years. It consists of six 120-minute sessions, delivered in a group format. The main components of the program include psycho-education (e.g. nature of anxiety and its associated risk factors), effective ways of managing children's anxiety (e.g. reducing overprotecting parenting style, modelling courageous coping behavior, engaging children in graded exposure task), and effective ways of managing parents' own anxiety (e.g. cognitive restructuring).

## Participants

The Cool Little Kids Anxiety Prevention Program had been conducted twice within CAS. For each time, it was run by two clinical psychologists. Around 9-12 parents of preschoolers (age 3.5-6 years) who had been assessed by either a paediatrician or clinical psychologist to be having Anxiety Problem or Anxiety Disorder were targeted for each intervention group. Exclusion criteria included children with the diagnosis of global developmental delay or autism spectrum disorder, children with sensory impairments, and parents who were unable to comprehend Chinese. Priorities were given to those parents of preschoolers who were not receiving any pre-school training at the time of intervention. A total of 21 parents attended the first treatment session of the two groups. However, 6 parents did not show up on the last session. Hence, only 15 parents completed both pre-treatment and post-treatment questionnaires.

## Measures

Parents completed a modified version of the Preschool Anxiety Scale (PAS-R). It consists of 28 items, tapping preschool age children's separation

anxiety, social fears, obsessive-compulsive fears, generalized anxiety, and fears of physical injury. The higher the score, the more serious is the child's anxiety. To measure how anxiety interferes the child's life, the Child Anxiety Life Interference Scale-Preschool Version (CALIS-P), was employed. The higher the score, the more the interference to the child's daily life is reported.

## Findings and Discussion

Both t-test results were not statistically significant (Table 1). Examination of individual data revealed that 10 out of 15 subjects showed improvement on the PAS-R scores. 9 out of 15 subjects showed improvement on the CALIS-P. Clinically, some parents reported improvement of their children's symptoms. Some parents also reported that they gained more insight on their own anxiety and found the cognitive strategy useful. In general, the parents could comprehend the content and accept the ideas. Though the result showed a trend of improvement, statistically it was not significant. This can partly be attributed to the small sample size. Moreover, as these two groups are our first two pilot groups, we need to accumulate more experience in running the groups to improve the treatment outcome. It should also be noted that the group program was originally designed as a prevention program. For clinical subjects, modification of the program, such as by increasing the number of sessions, is probably needed. In addition, more stringent recruitment procedures will be needed.

Table 1. Comparison of means before and after treatment

Measure	Pre-test		Post-test	
	M	SD	M	SD
PAS-R	65.93	17.59	60.07	20.72
CALIS-P	26.60	13.10	26.33	13.14

## Conclusion

The preliminary analysis of the effectiveness of the Cool Little Kids program suggests that it is applicable to Hong Kong parents. However, further modification and adaptation of the program including better translation of the terms used and simplification of worksheets is probably needed for local parents. It was ascertained that parents skills-training programs with the objectives to teach parents anxiety management and to foster healthy parent-child relationships might reduce the development of Anxiety Disorders in young children at risk.<sup>9</sup> Our current work is an attempt to this direction and the results encourage further development of the program in local context.

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## Treating Childhood Anxiety

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Anxiety in children is a relatively new concept. It was only recognized as a disorder in the second half of the 19<sup>th</sup> century, with numerous treatment methods proposed. This review attempts to give an overview of more widely accepted treatments for childhood anxiety disorders.

## Historical Perspective of Childhood Anxiety Disorders

According to Treffers and Silverman<sup>1</sup> who gave a detailed review of the historical development of anxiety disorders in children and adolescents, the concept of childhood anxiety could be traced back to Hippocrates' written work, in which fear was alleged to be one of the illnesses of newborns and infants. There was then little discussion on child anxiety until the Middle Ages, during which a few early paediatric publications discussed various child behavioral and emotional problems including "fear", such as stammering. Sadly, as psychiatric disorders were largely viewed as manifestations of the devil's

work, patients, including children, were often sent to exorcists.

A relatively more humane and scientifically-based approach was embraced in 17<sup>th</sup> to 18<sup>th</sup> centuries. With increasing number of case studies and literature published on child psychiatry, there was an emerging understanding in the conceptualization and treatment of Anxiety in child and adolescent. For instance, Phobia was described by Benjamin Rush<sup>2(p177)</sup> as "a fear of an imaginary evil, or an undue fear of a real one". His measures to educate children and to treat unreasonable fears, such as ghosts, darkness, insects, etc., involved exposing the children to the objects of fear.

In the 19<sup>th</sup> century, pharmacotherapy became the first line treatment for psychiatric disorders. Moreover, Manheimer's<sup>3</sup> publication in 1899 noted that psychological treatment, with components of verbal suggestion, reasoning, and persuasion, as well as hypnotic suggestion in severe cases could be effective.

## Contemporary Treatments

At present, the numerous treatment methods available can be largely grouped into two big categories, namely pharmacotherapy and psychotherapy. Among psychotherapies, cognitive-behavioral therapy (CBT) has received the strongest support in its efficacy<sup>4,5,6</sup> and long term treatment gains.<sup>7</sup> The general aim of CBT for anxiety disorders is to enable children to identify the physical, cognitive and behavioural components of anxiety, and to apply the skills learned in the therapy to progressively face (rather than avoid) anxiety-provoking situations. CBT could be delivered in group or individual formats, with components of gradual exposures (in vivo or imaginary), developing coping plans, using cognitive self-control and relaxation, and learning self-evaluation and self-reward.<sup>6</sup> Exposure, modeling and psychoeducation, as common interventions for children with various anxiety disorders, have received the most empirical support in treating childhood anxiety disorders.<sup>4</sup> Meanwhile, some studies provide minimal support for non-cognitive-behavioural approaches, including hypnosis, psychodynamic therapy, biofeedback, and play therapy.<sup>4</sup>

Apart from investigating the efficacy of psychosocial interventions alone, a recent focus of research is the combination of psychotherapy with pharmacotherapy for the treatment of childhood anxiety.<sup>5</sup> The Child-Adolescent Anxiety Multimodal Study (CAMS) was a randomized clinical trial investigating the relative efficacy of a 12-week treatment of individual CBT, medication (sertraline; SRT), and their combination (COMB), as compared to pill placebo (PBO), for children and adolescents (ages 7-17 years) with a primary diagnosis of Separation Anxiety Disorder, Social Anxiety Disorder or Generalized Anxiety Disorder. Findings showed that all the treatment conditions (i.e. CBT, SRT and COMB) were superior to PBO. In addition, COMB was consistently found to

be superior to both unimodal treatments.<sup>5</sup> Since the results of the CAMS trial has not yet been replicated, combination treatment for the aforementioned childhood anxiety disorders is considered probably efficacious.<sup>5</sup>

## Treatment of Specific Anxiety Disorders

So far, treatments targeted specifically for one particular anxiety disorder are relatively few.<sup>5</sup> For children with Social Anxiety, both behavioral therapy given in a mixed individual and group format (without any cognitive component) and group CBT were probably efficacious in treatment of Social Anxiety among children.<sup>5,6</sup>

The NICE<sup>8</sup> guidelines for Social Anxiety recommend individual and group CBT as treatments of Social Anxiety Disorder in children. Both individual and group CBT should consist of psychoeducation, exposure to feared or avoided social situations, social skills training and opportunities to rehearse skills in social situations for children; whereas for parents, especially those of young children, psychoeducation and skills training are beneficial to promote and reinforce the child's exposure to feared or avoided social situations and development of skills. Taking into account of the research evidence discussed in the preceding paragraphs, group CBT should be considered the first-line treatment for children and adolescents with Social Anxiety Disorder.

Review by Davies and colleagues<sup>5</sup> suggests that the efficacy of one-session CBT with in-vivo exposure is well established in treatment of Specific Phobia. It has been found to be superior to Eye Movement Desensitization & Reprocessing and placebo control conditions in various trials.

## Treating Comorbid Disorders

There is a high level of comorbidity within anxiety disorders in children and adolescents, with an estimated rate of 40% to 60% of anxious children meeting the criteria for more than one anxiety disorder.<sup>9</sup> In the CAMS trial, 35.7% of the children met diagnostic criteria for two out of the three anxiety disorders studied, and 35.9% were diagnosed with all three disorders, indicating the high prevalence of comorbidity of anxiety disorders among the treatment seeking population.<sup>10</sup>

In addition, a high rate of comorbidity is found between depression and anxiety disorders, with anxious children being at 8 to 29 times the risk of additional depression.<sup>9</sup> The comorbid diagnoses may be assessed and managed either in sequence or in parallel.<sup>11</sup> Preliminary evidence suggests that that depression may disrupt the typical course of treatment in children and adolescents with anxiety, and vice versa, hence complicating intervention for anxious children with comorbid depression. Rapee and colleagues<sup>9</sup> proposed that withdrawal and low

motivation associated with the depression may interfere with the completion of anxiety-reduction tasks, hence for anxious youth with comorbid Depression, specific treatment packages may be used to address different affectivity factors that are common or specific to anxiety and depression.

In view of the high comorbidity and complexities of the problems, Chorpita and Weisz<sup>12</sup> introduced a modular approach to therapy for children with anxiety, depression, trauma and conduct problems. It provides a systematic approach to treatment implementation to improve the fit and effectiveness of treatment in routine care in real-world service settings. Research findings supported incremental benefits of their modular approach over usual care delivered over a 2-year period.<sup>12</sup>

In addition, increasing research interest is seen in treatment of anxiety in children with autism spectrum disorder. Based on the unique characteristics of children with autism spectrum disorder, modifications to CBT are suggested to make the programme more suited to this population.<sup>13</sup> CBT was found to be superior to control conditions in eight Randomized Control Trials reviewed in treatment of children with high functioning Autism.<sup>14</sup>

## Other Factors Affecting Treatment Outcomes

The principal diagnosis and severity of the children, as well as comorbidity, have shown to be associated with treatment responses.<sup>9</sup> Meanwhile, demographic factors including age and gender of the children have not been found to reliably predict treatment response in CAMS.<sup>15</sup>

Parent factors, such as parent psychopathology (e.g. anxiety or depressive symptoms), baseline caregiver strain, and family dysfunction, are found to be adversely related to treatment responses.<sup>5,9,15,16</sup> Further investigation is required to identify appropriate treatments or modifications to treatments that could maximize response potential in children presenting with these familial risk factors, though preliminary evidence indicates that variants of CBT that include parent or family involvement could be beneficial.<sup>5</sup>

## Summary

Over the centuries, studies on treatments of anxiety disorders have become more sophisticated. CBT has received the strongest evidence as the generic treatment approach for different anxiety disorders. Combination treatment of CBT and pharmacotherapy has also been a recent focus of investigation, with some support for the superiority of combination treatment over unimodal treatments. Nonetheless, additional research is required to fill up the gaps in our understanding on factors predicting and moderating treatment outcomes, and to identify appropriate modifications or specific treatments for children with comorbidity or poor treatment responses.

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## Recent Publications and Scientific Presentations

### Publications

Lee FM, Tsang JF, Chui MM. The needs of parents of children with visual impairment studying in mainstream schools in Hong Kong. *Hong Kong Med J.* 2014;20(5):413-20. doi: 10.12809/hkmj134202.

Wong LY. Serving children with cerebral palsy-from surgery and beyond. Collaboration between sectors: Child Assessment Service and Department of Neurosurgery, Tuen Mun Hospital. *The Hong Kong Medical Diary* 2014;19(4):25-6.

### Scientific Presentations

**Enhancing children's oral language skills** on 6 December 2014 at Department of Educational Psychology, The Chinese University of Hong Kong by CHAN Wai-ki, Amy.

**Validating a language scale for Cantonese Chinese preschool children: a stage 2 report** on 29 November 2014 at UPAM Golden Jubilee Scientific Meeting, Department of Paediatrics and Adolescent Medicine, LKS Faculty of Medicine, The University of Hong Kong by NG Kwok-hang, Ashley.

**Autism Spectrum Disorder: the local scene** on 20 November 2014 at Genetics and Epidemiology in Autism 2014, The Jockey Club School of Public Health and Primary Care, The Chinese University of Hong Kong by Dr WOO Kai-fan, Estella.

**Traumatic brain injury: a six-year journey for a teenager with multiple sequelae** on 1 November 2014 at Annual Scientific Meeting 2014 on Paediatric Neuropsychopharmacology, The Hong Kong Society of Child Neurology and Developmental Paediatrics by TSANG Yee Ha, Lucia.

**Assessment and diagnosis on students with severe and multiple disabilities** on 15 October 2014 at Centre for Special Educational Needs and Inclusive Education, The Hong Kong Institute of Education by SHEH Ching-shan, Annie.

**Validating a language scale for Cantonese Chinese preschool children** on 12 October 2014 at Hong Kong Speech and Hearing Symposium 2014, Division of Speech Therapy and Division of Audiology, Department of Otorhinolaryngology, Head and Neck Surgery, The Chinese University of Hong Kong by NG Kwok-hang, Ashley.

**Diagnostic issues / Application of visual strategies** on 9 October, 13 November 2014 at Diploma in Special Education (Special Learning Needs Education Course in Autism/Asperger's Syndrome), HKU SPACE by LAM Ling.

**Intellectual assessment and adaptive functioning for children with physical or sensory disabilities and multiple disabilities: assessment of different cognitive functions in children** on 30 September 2014 at Department of Psychology, The University of Hong Kong by CHEN Yuk-ki, Theresa.

**Developmental coordination disorder and learning disabilities** on 27 September 2014 at Department of Educational Psychology, The Chinese University of Hong Kong by CHUI Mun-ye.

**Knowledge Management (KM) experience sharing by the Department of Health** on 19 September 2014 at Efficiency Unit, The Government of the Hong Kong Special Administrative Region by Dr LIU Ka-ye, Stephenie.

**Learning disabilities and dyslexia** on 12 September 2014 at Post-registration certificate course in child and adolescent nursing, The Institute of Advanced Nursing Studies, Hospital Authority b Dr CHAN Wai-yin.

**Transition to school: a case discussion** on 6 September 2014 at Symposium on Paediatric Neuro-cognitive Disorders: Epilepsy and Traumatic Brain Injuries, The Hong Kong Society of Child Neurology and Developmental Paediatrics by YU Shiu-man, Effie.

**Children surviving TBIs: CAS experience and outcome** on 6 September 2014 at Symposium on Paediatric Neuro-cognitive Disorders: Epilepsy and Traumatic Brain Injuries, HKCNDP, by Dr LIU Ka-ye, Stephenie.

**Learning to read and write: strengthening children's handwriting related skills** on 6 August, 13 August 2014 at Department of Educational Psychology, The Chinese University of Hong Kong by FONG Kin-han.

**Learning to read and write: strengthening children's handwriting related skills** on 23 July, 30 July 2014 at Department of Educational Psychology, The Chinese University of Hong Kong by CHUI Mun-ye.

**Childhood developmental disorders 2: abnormal development** on 21 July, 22 September, and 1 December 2014 at Department of Paediatrics, The Chinese University of Hong Kong by Dr LEE Mun-yau, Florence.

**How to enhance the oral language skills of school-age children with language impairment** on 9 July 2014 at The Hong Kong Institute of Education by CHAN Wai-ki, Amy.

**Understanding the aim, scope, and procedures on screening and assessment of oral language functions in pre-school and school age children. How can teachers identify children with oral language difficulties in schools?** on 3 July 2014 at The Hong Kong Institute of Education by CHAN Wai-ki, Amy.

**Understanding typical and disordered development in speech sound system (phonology) in children. How can teachers identify children with speech sound system problems in schools?** on 27 June 2014 at The Hong Kong Institute of Education by CHEUNG Sau-ping, Pamela.

**Learning to read and write: strengthening children's handwriting related skills** on 7 June 2014 at Department of Educational Psychology, The Chinese University of Hong Kong by FONG Kin-han.

**Learning to read and write: strengthening children's handwriting related skills** on 24 April 2014 at Department of Educational Psychology, The Chinese University of Hong Kong by FONG Kin-han.

**Autism Diagnostic Observation Schedule (ADOS)** on 1 April 2014 at Master of Educational and Child Psychology (MECP), The Hong Kong Polytechnic University by LAM Ling and TSANG Fung-king.

**Dyslexic risk in Chinese preschool children: From theory to practice.** Paper presented on 29 March 2014 at the British Dyslexia Association 9th international conference, Guildford, United Kingdom by CHAN Mee-yin, Becky.

**The construction of a screening tool for early identification of children at risk of dyslexia: A cross-cultural perspective.** Poster presented from 27 to 29 March 2014 at the British Dyslexia Association 9th international conference. Guildford, United Kingdom by TSANG Yee-ha, Lucia, Dr LAM Chi-chin, Catherine, CHAN Mee-yin, Becky, and CHUNG Wai-hung, Angela.

**Application of visual strategies** on 24 March 2014 at Diploma in Special Education (Special Learning Needs Education Course in Autism/Asperger's Syndrome), HKU SPACE by LAM Ling.

**Learning disabilities and dyslexia** on 21 March 2014 at Institute of Advanced Nursing Studies, Hospital Authority by CHUNG Wai-hung, Angela.

**Enhancing children's oral language skills** on 8 March 2014 at Department of Educational Psychology, The Chinese University of Hong Kong by CHAN Wai-ki, Amy.

**Workshop on the Hong Kong Cantonese Oral Language Assessment Scale (HKCOLAS)** at The University of Hong Kong on 7 March 2014:

- **Administering HKCOLAS & Test of Hong Kong Cantonese Grammar** by NG Kwok-hang, Ashley
- **Textual Comprehension Test** by CHAN Yvonne Binva
- **Word Definition Test** by MAN Yuk-han, Yonnie
- **Lexical-Semantic Relations Test & Expressive Nominal Vocabulary Test** by CHAN Wai-ki, Amy
- **Nonword Repetition Test & Hong Kong Cantonese Articulation Test** by CHEUNG Sau-ping, Pamela

**Accommodation for students with specific learning disabilities ( 讀寫困難學生的校內及公開考試調適需知 )** on 6 March 2014 at Diploma in Special Education: Foundation Certificate in Special Education (Specific Learning Difficulties in Reading and Writing), HKU SPACE by CHAN Mee-yin, Becky.

**Visual assessment in children with developmental problems** on 27 February 2014 at School of Optometry, The Hong Kong Polytechnic University by CHEUNG Pui-yi, Josephine.

**Diagnostic issues** on 20 February 2014 at Diploma in Special Education (Special Learning Needs Education Course in Autism/Asperger's Syndrome), HKU SPACE by LAM Ling.

**Neuro-developmental assessment for children** on 15 February 2014 at Institute of Advanced Nursing Studies, Hospital Authority by LAU Pui-heung, Beverley.

**Facilitating language development through story telling: theory and practice** on 22 January 2014 at Department of Paediatrics and Adolescent Medicine, Pamela Youde Nethersole Eastern Hospital by NG Kwok-hang, Ashley.

**Learning to read and write: strengthening children's handwriting related skills** on 17 January 2014 at Department of Educational Psychology, Faculty of Education, The Chinese University of Hong Kong by CHUI Mun-ye.

**Accommodation for students with specific learning disabilities ( 讀寫困難學生的校內及公開考試調適需知 )** on 16 January 2014 at Diploma in Special Education: Foundation Certificate in Special Education (Specific Learning Difficulties in Reading and Writing), HKU SPACE by CHAN Mee-yin, Becky.

**Understanding typical and disordered development in speech sound system (phonology) in children. How can teachers identify children with speech sound system problems in schools?** on 13 January, 1 April, and 5 June 2014 at The Hong Kong Institute of Education by CHEUNG Sau-ping, Pamela.

**How to enhance the oral language skills of school-age children with language impairment** on 9 January, 26 March, and 30 May 2014 at The Hong Kong Institute of Education by CHAN Wai-ki, Amy.

**Understanding the aim, scope, and procedures on screening and assessment of oral language functions in pre-school and school age children** on 7 January, 25 March, and 29 May 2014 at The Hong Kong Institute of Education by CHAN Wai-ki, Amy.

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