



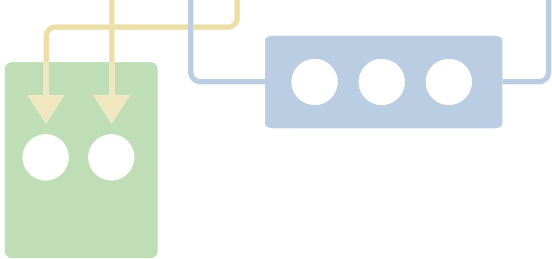
台灣兒童青少年精神醫學會  
Taiwanese Society of Child and Adolescent Psychiatry  
十八周年年會暨學術研討會  
18<sup>th</sup> TSCAP Annual Meeting  
大會手冊暨論文摘要集

*Clinical Services Across Lifespan and  
Generation in **ADHD***

提供注意力不足過動症患者  
跨越生命期程的  
臨床服務



May 29, 2016 (Sunday)  
交通部集思國際會議中心  
GIS MOTC Convention Center



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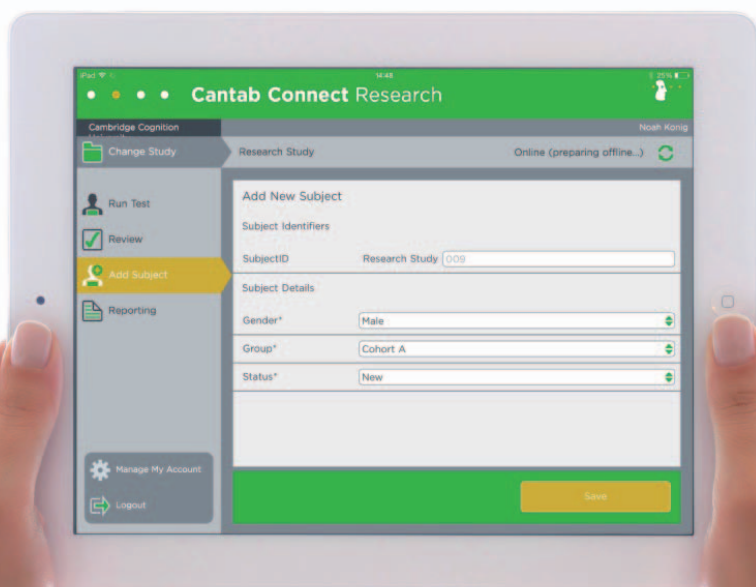
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**18<sup>th</sup> TSCAP Annual Meeting / 台灣兒童青少年  
精神醫學會十八周年年會暨學術研討會**  
**提供注意力不足過動症患者跨越生命期程的臨床服務**  
**Clinical Services Across Lifespan and Generation in ADHD**

Date: May 29, 2016 (Sunday)

Venue: GIS MOTC Convention Center  
交通部集思國際會議中心

(台北市中正區杭州南路一段 24 號 仁愛路口)

時 間	內 容
8:20-8:50	報到
8:50-9:00	Opening Ceremony / 開幕式 President of TSCAP 高淑芬理事長
9:00-10:10	Keynote Speech / 專題演講 外 賓：Prof. Philip Asherson Understanding ADHD across lifespan. 主持人：Prof. Susan SF Gau 高淑芬理事長
10:10-10:40	致贈陳快樂前理事長紀念品 / Group Photo 團體照 / Tea Break 茶點時間
10:40-12:20	English Oral Presentation / 講述論文發表 主持人：陳映雪醫師、周文君醫師 評 審：Prof. Philip Asherson、宋維村醫師、陳映雪醫師、周文君醫師 1. 注意力不足過動症與非注意力不足過動症之神經心理功能於青春期的發展軌跡 Parallel Development of neuropsychological functioning in individuals with and without ADHD from early to late adolescence. (林育如 Yu-Ju Lin 10:40~11:05) 2. 注意力不足過動症兒童與其未罹病手足之全聯結體網絡研究 Connectome-wide network analysis of youth with attention-deficit hyperactivity disorder and their unaffected siblings. (林祥源 Hsiang-Yuan Lin 11:05~11:30)

時間	內容			
10:40-12:20	3. 多巴胺轉運基因對於注意力不足過動症兒童的靜息狀態腦影像之效應 Effects of Dopamine Transporter Gene Variation on Resting Brain Imaging in Children with Attention Deficit Hyperactivity Disorder. (商志雍 Chi-Yung Shang 11:30~11:55) 4. 注意力不足過動症患者的腦部區域體積與反應時間個體內變異性的關聯性 Neural Substrates Underpins Intra-Individual Variability in Children with ADHD: A Voxel-Based Morphometry Study. (江惠綾 Huey-Ling Chiang 11:55~12:20)			
12:20-13:10	Committee Meeting / 會員大會、Lunch / 午餐 主持人：高淑芬理事長			
14:00-15:00	Oral Presentation/ 講述論文發表 (3 樓演講廳) 主持人 / 評審： 陳俊鶯院長、 李鶯喬主任 1. 高功能自閉症青少年涉入霸凌與否與面部表情辨識能力的相關性研究 (劉黛玲) 2. 自閉症孩童被霸凌及被霸凌調查分析：親子陳述一致性研究 (戴月明) 3. 心智理論能力訓練用於降低罹患自閉症類群障礙症之兒童青少年遭受霸凌之成效研究 (顏正芳)	Oral Presentation/ 講述論文發表 (2 樓會議室) 主持人 / 評審： 葉啟斌主任、 黃玉書主任 1. 藥物治療對成人注意力不足過動症生活品質及社交缺損之影響 (楊蕙年) 2. 對事件採取不同觀點的想像時間對高社會焦慮青少年的影響 (黃郁珊) 3. 性取向屬少數之男性在兒童青少年期因性別不順常規而遭受霸凌經驗 (林奕萱)	13:00-16:00 Poster Section/ 壁報論文討論 / 主持人兼評審： 徐如維醫師、 陳質采醫師、 鄒國蘇醫師 (13:00-14:00 投稿人需在現場)	Election/ 投票 (13:00-15:00)

時 間	內 容	
14:00-15:00	4. 自閉症青少年和年輕成人之第二型糖尿病風險：台灣資料庫研究（陳牧宏）	4. 南臺灣兒童性侵害早期司法鑑定揭露相關因子分析研究（蔡景宏）
15:00-15:30	茶點時間	
15:30-16:30	Symposia / 專題討論會（司法） 主 題：法律與倫理的難題——談未成年人的精神醫療自主性 主持人：宋維村醫師 演講人：劉士愷醫師	
16:30-17:00	閉幕 頒獎	



# 大會歡迎詞

與會的嘉賓以及本會會員們，大家好！歡迎參加臺灣兒童青少年精神醫學會第十八周年年會暨學術研討會。會議於 2016 年 5 月 28-29 日於集思交通部國際會議中心舉行。

注意力不足過動症是源自於兒童期最常見的疾患之一，症狀困擾常延續至成年以後。今年，我們年會的主題是「提供注意力不足過動症患者跨越生命期程的臨床服務」。會前專題研討會和年會的內容，旨在深入探討注意力不足過動症患者在不同的生命期程所面臨的困境，以及相對應的治療模式。

學會很榮幸邀請到 Prof. Philip Asherson，擔任這次年會的 Keynote Speaker。希望這次年會可以提供相關領域的專業人員，不管在注意力不足過動症，或其他議題如未成年人的精神醫療自主性等，能有更多臨床及學術研究交流的機會。也希望藉由年會選定的主題，傳達給社會大眾包括注意力不足過動症由兒童到成人診療的正確觀念。協助兒青精神醫療的夥伴們，提供患者及家庭最適合的治療模式，尋求更好的醫療品質，一直是臺灣兒童青少年精神醫學會的宗旨。

過去一個世紀是科學研究興盛的世代，也是挑戰人性的時代。社會整體的不確定感以及不安，政府政策的介入、家庭及學校功能的劇烈轉變，兒青精神醫療的業務越來越繁重，也因此我們更須要互相合作、彼此支持，精進專業技能，沈著解決蜂擁而至的問題及挑戰。

在此，謹代表學會向籌辦本次年會的所有會員及工作人員、贊助單位，獻上十二萬分的謝意。也謝謝理監事們的指導、以及會員們對學會各項活動的支持及積極參與。

敬祝各位先進  
身體健康 萬事如意

臺灣兒童青少年精神醫學會

理事長 高淑芬

2016 年 5 月 13 日

# 台灣兒童青少年精神醫學會

## 第九屆理監事暨秘書處名單

理事長：高淑芬

常務理事：丘彥南、李鶯喬、顏正芳、周文君

常務監事：張學岑

理事：吳佑佑、陳錦宏、陳質采、侯育銘、梁歆宜、陳俊鶯、邱顯智、  
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四、身心障礙鑑定繼司法精神醫學小組：小組召集人及副召集人由委員相互推舉產生。任期二年。

召集人：丘彥南

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五、發展障礙暨早期療育委員會：主任委員、副主任委員及委員由理事長就會員中提名，經理事會同意後聘任。任期二年。

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委員：邱顯智、吳佑佑、鄒國蘇、陳質采、周文君、商志雍、鄭琿、何淑賢、劉弘仁、林志堅。







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# 專題演講

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### **Professor Philip Asherson**

*Professor of Molecular Psychiatry, Genetic and Developmental Psychiatry Research Centre, King's College London, UK*

Professor Philip Asherson has been a Lead Clinician in the National Adult ADHD Clinic at the Maudsley Hospital, London, UK, since 1998. His research focuses on clinical, quantitative genetic and molecular genetic studies of ADHD in adults and in children, and the clinical assessment and treatment of ADHD in adults. He was a member of the National Institute of Health and Clinical Excellence (NICE) Guideline Development Group for ADHD across the lifespan and is the president of the UK Adult ADHD Network – a national network for the support of clinicians diagnosing and treating ADHD in the UK. Professor Asherson has authored over 270 peer-reviewed articles and book chapters on ADHD and other psychiatric conditions, including two books on ADHD in adults.

### **Research Interests**

- ADHD; neurodevelopmental disorders; clinical and genetic studies of ADHD; neuropsychiatric disorders.
- Genetics of ADHD and related neurodevelopmental disorders; clinical and genetic studies of ADHD in adults; mapping genes in common complex neuropsychiatric disorders; functional studies aimed at delineating the brain processes that mediate genetic risk on ADHD.

### **Latest Research Outputs**

- **Microduplications at the pseudoautosomal SHOX locus in autism spectrum disorders and related neurodevelopmental conditions**

Tropeano, M., Howley, D. M., Gazzellone, M. J., Wilson, C. E., Ahn, J., Stavropoulos, D. J., Murphy, C. M., Eis, P. S., Hatchwell, E., Dobson, R. J. B., Robertson, D., Holder, M., Irving, M., Nehammer, A., Josifova, D., Nehammer, A., Ryten, M., Spain, D., Pitts, M., Bramham, J. & 10 others 12 Apr 2016 In : Journal of Medical Genetics.

Article

- **Six-year follow-up study of combined type ADHD from childhood to young adulthood: Predictors of functional impairment and comorbid symptoms**

Cadman, T., Findon, J., Eklund, H., Hayward, H., Howley, D., Cheung, C., Kuntsi, J., Glaser, K., Murphy, D. & Asherson, P. May 2016 In : European Psychiatry. 35, p. 47-54

Article

- **Delineating ADHD and bipolar disorder: A comparison of clinical profiles in adult women**

Kitsune, G. L., Kuntsi, J., Costello, H., Frangou, S., Hosang, G. M., McLoughlin, G. & Asherson, P. 1 Mar 2016 In : Journal of Affective Disorders. 192, p. 125-133

Article

- **The effect of omega-3 polyunsaturated fatty acid supplementation on emotional dysregulation, oppositional behaviour and conduct problems in ADHD: A systematic review and meta-analysis**

Cooper, R. E., Tye, C., Kuntsi, J., Vassos, E. & Asherson, P. 15 Jan 2016 In : Journal of Affective Disorders. 190, p. 474-82

Article



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# 專題討論會

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## 劉士愷醫師 簡歷

### 學歷

國立台灣大學醫學系畢

國立政治大學法律研究所碩士班

### 經歷

曾任職於台北市立療養院（現為台北市立聯合醫院松德院區）、財團法人恩主公醫院精神科，並曾擔任台灣兒童青少年精神醫學會秘書長、監事及常務監事

### 現任

1. 行政院衛生福利部桃園療養院 兒童青少年精神科主治醫師
2. 台灣兒童青少年精神醫學會 司法精神醫學工作小組成員

### 專業證照

1. 中華民國醫師
2. 中華民國精神科專科醫師
3. 中華民國兒童青少年精神科專科醫師

### 英文著作：

1. Genome-Wide Association Study for Autism Spectrum Disorder in Taiwanese Han Population. Kuo PH, Chuang LC, Su MH, Chen CH, Chen CH, Wu JY, Yen CJ, Wu YY, Liu SK, Chou MC, Chou WJ, Chiu YN, Tsai WC, Gau SS. PLoS One. 2015 Sep 23;10(9)
2. Genetic analysis of GABRB3 as a candidate gene of autism spectrum disorders. Chen CH, Huang CC, Cheng MC, Chiu YN, Tsai WC, Wu YY, Liu SK, Gau SS. Mol Autism. 2014 Jun 25;5:36.
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2. 酒癮患者使用 Disulfiram 之副作用評估。黃名琪、劉士愷、黃智佳、陳俊興、黃碧琴、林式毅。台灣精神醫學第十六卷第三期中華民國九十一年九月。
3. 精神分裂症患者服用 CLOZAPINE 出現強迫症狀：二例報告。蘇聖棻、劉士愷、蔡長哲、林世光、陳俊澤、林式毅。台灣精神醫學第十四卷第二期中華民國八十九年六月。
4. 反轉變體症候群：一例報告。郭千哲、鄧惠泉、劉士愷、陳坤波、陳喬琪。台灣精神醫學第十二卷第一期中華民國八十七年三月。



## 法律與倫理的難題—— 談未成年人的精神醫療自主性

劉士愷

1981年，世界醫學會年會發表了「里斯本病患權利宣言」（Declaration of Lisbon on the Rights of the Patients），揭櫫病患醫療自主權的概念；2015年12月18日，我國立法院通過「病人自主權利法」。雖然兩者相距已34年，後者卻是亞洲第一部病人自主權利專法，使病人能預先規畫自己的醫療決策，保障生命最後尊嚴。台灣醫界人士認為該法臨床判定部分（第14條第一項第五款：疾病狀況或痛苦難以忍受、疾病無法治癒且依當時醫療水準無其他合適解決方法之情形）有爭議，也對於將醫療決定交予病患是否能促成其最佳利益有許多疑慮，但這無疑是我國成年病患自主權利的里程碑；然而，未成年人在台灣的醫療自主，有相對的進展嗎？

1989年的聯合國兒童權利公約明示了兒童也應享有表達意見及保障利益的條文：「關於兒童的一切，應以其最佳利益（best interest）為首要考慮」（第4條）及「有主見能力的兒童對於影響自己自由的事有權發表意見，並應予以尊重」（第12條之1）。英國雖在1969年的家庭改革法案（Family Law Reform Act, FLRA）定義成年人為滿18歲之人，但是准許16歲以上的孩童可以獨立同意醫療行為，不需要經父母的同意；對於13至16歲的青少年則有依判例衍生出的「Gillick行為能力」（Gillick competence）原則，可保障其醫療自主權利的實現。美國亦有所謂的「成熟孩童法則」（Mature Minor Doctrine），用來保障未成年人的醫療自主權利。放眼國際，尊重及保障未成年人的醫療自主權利，早已經是多數先進國家的共識。

我國的法律雖承認7歲以上兒童有一定程度之意思表示能力，得辨識利害得失，但是未見類似英美的醫療自主概念實踐。以台灣板橋地方法院91年度訴字第143號刑事判決為例：醫師為未滿18歲之少女人工流產，未經法定代理人同意，結果被判刑10個月（無法易科罰金，須入獄服刑）。這意味著法官無視未成年人可能具備醫療自主的行為能力，仍依據現行民法認定，因非完全行為能力之人，他們在醫療決定上仍然需要法定代理人輔助。

當未成年人連一般醫療自主權利都尚未能受到保障與落實，罹患精神疾患的未成年人，自然更是醫療自主權中的弱勢族群。在法律與醫療倫理的天平上，台灣的兒童青少年精神科醫師如何能在這明顯不利未成年人醫療自主的狀態中，協助他們實現應受保障的權利及維護其最佳利益，同時避免逾越法律的紅線，實是需要深思的難題。





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# 講述論文發表

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## Parallel Development of neuropsychological functioning in individuals with and without ADHD from early to late adolescence

### 注意力不足過動症與非注意力不足過動症之 神經心理功能於青春期之發展軌跡

Yu-Ju Lin<sup>1,2\*</sup>, Susan Shur-Fen Gau<sup>2</sup>

林育如<sup>1,2\*</sup> 高淑芬<sup>2</sup>

**Objective:** ADHD symptoms declined with age when children with ADHD grow up. Whether and how their neuropsychological deficits decline with age is of great interest.

**Methods:** We followed 56 young adults (mean age 12.86 years at time 1; 19.95 years at time 2) who were diagnosed with DSM-IV ADHD during childhood and 50 non-ADHD controls (mean age 12.80 years at time 1; 19.36 years at time 2). All participants were interviewed by the K-SADS-E at both time points to confirm their ADHD status and other psychiatric diagnoses. Neuropsychological functions, measured by Cambridge Neuropsychological testing automated battery, were compared between two groups.

**Results:** The clinical ADHD symptoms declined with age significantly in the ADHD group. Both groups showed improvements of all neuropsychological functioning, including reaction time, attention (Rapid Visual Information Processing), Spatial span, Spatial working memory, spatial planning (Stocking of Cambridge) and set-shifting (Intradimension/Extradimension shift) between two measurements. There was no correlation between the changes of ADHD symptoms and changes of neuropsychological functioning. Time 1 attention, spatial working memory, spatial planning and set-shifting predicted Time 2 ADHD symptom count after adjusting for Time 2 corresponding neuropsychological functions.

**Conclusion:** There were parallel development of neuropsychological functioning in individuals with and without ADHD from early to late adolescence. The decline of ADHD symptoms was not explained by the change of neuropsychological functions. This study is consistent with the hypothesis that individuals with ADHD have maturational lag in brain development.

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## Connectome-wide network analysis of youth with attention-deficit/hyperactivity disorder and their unaffected siblings

### 注意力不足過動症兒童與其未罹病手足之全聯結體網絡研究

Hsiang-Yuan Lin, MD<sup>1</sup>, Susan Shur-Fen Gau, MD, PhD<sup>1</sup>

林祥源<sup>1</sup> 高淑芬<sup>1</sup>

**Objective:** Attention-deficit/hyperactivity disorder (ADHD) is a heritable neurodevelopmental disorder associated with atypical intrinsic functional brain networks. It is not known whether intrinsic brain organizations are abnormal in unaffected siblings of individuals with ADHD, and whether aberrant connections are subject to familial influences.

**Methods:** We conducted a multivariate connectome-wide association study (CWAS) examining dysconnectivity with resting state functional magnetic resonance imaging in a sample of 56 youths with ADHD, 55 unaffected siblings, 55 typically developing (TD) comparators, sex-, age-, intelligence-matched, for ADHD (TD<sub>ADHD</sub>), and 51 TD comparators for siblings (TD<sub>Sibling</sub>), age range 8-17 years. Significant CWAS findings were thresholded at  $Z > 1.65$ , and controlled for family-wise error rate using Gaussian Random Field (GRF) theory (cluster size threshold  $p < 0.05$ ). Follow-up analyses used the clusters identified by CWAS as the basis for seed-based connectivity analyses.

**Results:** In CWAS, comparison of TD<sub>ADHD</sub> and ADHD youths revealed multiple regions where the multivariate pattern of connectivity differed between groups, implicating the medial prefrontal cortex (mPFC) and left superior temporal cortex. Comparisons of TD<sub>Sibling</sub> and unaffected siblings showed between-group dysconnectivity in the mPFC. Comparisons of ADHD youths and siblings identified group differences in the mPFC, posterior cingulate cortex (PCC), and left superior temporal cortex. No difference was identified between TD<sub>ADHD</sub> and TD<sub>Sibling</sub> in CWAS. Follow-up seed-based analyses identified increased mPFC-precunes/PCC connectivity in ADHD, relative to TD<sub>ADHD</sub> and unaffected sibling, respectively. ADHD youths had higher connectivity between the left superior temporal cortex and default-mode network (DMN) compared to TD<sub>ADHD</sub>. The sibling group had hypoconnectivity between the mPFC and precuneus/PCC, as compared to the TD<sub>Sibling</sub> group.

**Conclusions:** The current finding of increased anterior-posterior long-range connections in the DMN was at odds with prior literature demonstrating hypoconnectivity within the network in ADHD, suggesting a more complex picture in the role of DMN in mechanistic framework underpinning ADHD. This inconsistency may partly arise from an unbiased multivariate approach used in the current work. Unaffected siblings revealed distinct dysconnectivity in the DMN from their siblings with ADHD, warranting further investigation regarding functional relevance. Collectively, these results provide novel evidence for functional dysconnectivity in ADHD youths and their unaffected siblings.

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# Effects of Dopamine Transporter Gene Variation on Resting Brain Imaging in Children with Attention Deficit Hyperactivity Disorder

## 多巴胺轉運基因對於注意力不足過動症兒童的靜息狀態腦影像之效應

Chi-Yung Shang, M.D., Ph.D.<sup>1,2\*</sup>, Hsiang-Yuan Lin, M.D.<sup>1,2</sup>,  
Susan Shur-Fen Gau, M.D., Ph.D.<sup>1,2</sup>  
商志雍<sup>1,2\*</sup> 林祥源<sup>1,2</sup> 高淑芬<sup>1,2</sup>

**Background:** The dopamine transporter gene (*DAT1*) and visual memory deficits have been consistently reported to be associated with attention deficit hyperactivity disorder (ADHD). This study aimed to examine the impact of *DAT1* genotype on the intrinsic brain activity and gray matter volume in children with ADHD.

**Methods:** Using resting state functional MRI (RS-fMRI) and genetic analysis of the *DAT1* gene, we investigated how intrinsic brain activity contributed to ADHD depending on *DAT1* genotype in 37 drug-naïve children with ADHD, including 17 subjects with a haplotype of rs27048 (C)/rs429699 (T) and 20 subjects without this C/T haplotype. Visual memory was assessed by the Pattern Recognition Memory (PRM) and Spatial Recognition Memory (SRM) tasks of the Cambridge Neuropsychological Test Automated Battery (CANTAB). We analyzed intrinsic functional brain architecture with the regional homogeneity (ReHo).

**Results:** The haplotype of rs27048 (C)/rs429699 (T) was associated with ReHo decrease in bilateral cuneus, precuneus and superior occipital gyri. The ReHo in bilateral cuneus, precuneus and superior occipital gyri was correlated with measures of SRM and PRM in children without the CT haplotype (coefficient 0.55~0.64,  $P < 0.05$ ). Significantly reduced gray matter volume was identified in the left cuneus, precuneus, superior occipital gyrus, and orbitofrontal cortex in children with the CT haplotype. The gray matter volume in the left cuneus, precuneus, superior occipital gyrus was correlated with measures of SRM and PRM in children with the CT haplotype (coefficient 0.6~0.63,  $P < 0.05$ ).

**Conclusions:** A novel gene-brain-behavior association was identified in which alternations of functional intrinsic activity in distinct brain regions were related to *DAT1* haplotype rs27048 (C)/rs429699 (T) in children with ADHD. Our findings could be a key to better understanding the pathway from genotype to phenotype in ADHD.

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## Neural Substrates Underpins Intra-Individual Variability in Children with ADHD: A Voxel-Based Morphometry Study

### 注意力不足過動症患者的腦部區域體積與 反應時間個體內變異性的關聯性

Huey-Ling Chiang<sup>1,2,3</sup>, Hsiang-Yuan Lin,<sup>1,2</sup> Susan Shur-Fen Gau<sup>1,2</sup>

江惠綾<sup>1,2,3</sup> 林祥源<sup>1,2</sup> 高淑芬<sup>1,2</sup>

**Objective:** Deficits in a wide range of neuropsychological domains have been identified in attention deficit hyperactivity disorder (ADHD), but one ubiquitous characteristic in ADHD is increased intra-individual variability (IIV) in reaction time (RT) across different tasks. However, little is known about neurobiological underpinnings of IIV in individuals with ADHD.

**Method:** We assessed 55 youths with ADHD and 55 age-, sex-, handedness- and intelligence-matched TD youths with the Conners' Continuous Performance Test (CCPT) for attention performance, and estimated RT distribution of CCPT by ex-Gaussian distribution to capture IIV with the parameters  $\sigma$  (sigma) and  $\tau$  (tau). Voxel-based morphometry was applied, and correlations between regional brain volume and IIV parameters were investigated. Statistical threshold was all set at FWE-corrected cluster-level  $p < 0.05$ , with cluster-forming voxel-level  $p < 0.005$ .

**Results:** Youths with ADHD and TD did not differ significantly in total gray matter (GM) or white matter (WM) volumes. For GM, increased  $\tau$  was associated with increased regional volume in right superior temporal gyrus, right posterior insula and bilateral cerebellum in youths with ADHD. There was significant group-by- $\sigma$  interaction in cingulate cortex and thalamus, and significant group-by- $\tau$  interaction in right inferior frontal gyrus. For WM, increased  $\sigma$  was associated with increased regional volume in left uncinate fasciculus and bilateral inferior cerebellar peduncle, and with decreased regional volume in left superior corona radiata. Increased  $\tau$  was associated with increased regional volume in right anterior corona radiata, and with decreased regional volume in right posterior limb of internal capsule. There was significant group-by- $\sigma$  interaction in genu of corpus callosum and significant group-by- $\tau$  interaction in right anterior corona radiata, left splenium of corpus callosum, and arbor vitae of bilateral cerebellum.

**Conclusions:** This study highlights atypical neuroanatomy is associated with increased IIV in youths with ADHD.

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## Association between bully involvement and facial emotion recognition among adolescents with high functioning autism spectrum disorder

### 高功能自閉症青少年涉入霸凌與否與面部表情辨識能力的相關性研究

Tai-Ling Liu<sup>1,2\*</sup>, Cheng-Fang Yen<sup>1,2</sup>

劉黛玲<sup>1,2\*</sup> 顏正芳<sup>1,2</sup>

**Objective:** Autism Spectrum Disorder (ASD) is a neurodevelopmental disorder that is characterized by impaired social interaction, communication, and by restricted and repetitive behavior. There is very limited study on the effect of facial emotion recognition on bullying involvement among ASD. The aim of this study was to examine the association between facial emotion recognition and different types of bullying involvement in adolescents with high functioning ASD.

**Methods:** We recruited 142 adolescents with high functioning ASD who aged at 11 to 16 years old into this study. Adolescents' experiences of bullying involvement were measured using the Chinese version of the School Bullying Experience Questionnaire. Adolescents' facial emotion recognition was measured using the Facial Emotion Recognition Task (6 emotional expressions and 4-degree intensity of emotion). Logistic regression analysis was used to examine the association between different types of bullying involvement and facial emotion recognition by controlling for the effects of others factors.

**Results:** After controlling for the effects of sex, age, depression and anxiety, bullying perpetrators performed significantly better on the rating intensity of emotion in Facial Emotion Recognition Task. Bullying victims performed significantly worse on the ranking intensity of facial emotion in Facial Emotion Recognition Task.

**Conclusions:** The results of this study support the different deficits of facial emotion recognition in various types of bullying involvement among adolescents with high functioning ASD. It is necessary to take the different directions of association between bully involvement and facial emotion recognition into consideration when developing prevention and intervention programs.

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## Consistency between Mother- and Child-Reported States of Bully Victim and Perpetrator among Children with Autism and Typical Development.

### 自閉症孩童被霸凌及被霸凌調查分析： 親子陳述一致性研究

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**Objective:** This study aims to explore the consistency between mother- and youth- reported the presence of being bullied (bully-victim) and bullying (bully-perpetrator) among youth with autism and typically developing (TD) youth.

**Method:** A total of 326 youth, 104 with autism (Autism group, male: 87.5%, age: 13.34 ± 0.32 years) and 222 TD youth (male: 81.1%, age: 11.03 ± 0.16 years), participated in this study involving a survey with retrospective mother- and self-report of Social Adjustment Inventory for Children and Adolescents (SAICA). The presence of being bullied (Bully-victim) and bullying (Bully-perpetrator) were derived from questions form the SAICA in four-point Likert scales as “1” for never and “4” for always. Descriptive analysis and inter-rater consistency (Kappa) between mother- and child- reported results were compared using a statistical software, SPSS (version 20). To facilitate further analyses, we defined the *negative* response if “never” was answered, and *positive* response if else (sometime, frequent and always).

**Results:** Youth with Autism suffered from higher risk for being bully-victims (54.8% by mother, 51.0% by children) and bully-perpetrators (57.7% by mother, 52.9% by children) than TD youth (26.6%, 35.6%, 27.0% and 30.8% respectively). The similar mediation effects were found by using dichotomous previous ADHD diagnosis as the alternative predictor of mediation analyses. Poor inter-rater consistency (kappa) was found between mother- and child- reported results (almost < 0.4), especially for children with autism or elder age. However, elder TD youth showed the lowest consistency (kappa = 0.185).

Significantly under-reported bully-victim rates by mother was found among TD youth aged 12 or older who also showed higher rates of being bully-victims and bully-perpetrators.

**Conclusions:** The study, astonishingly, showed an inconsistent mother- and child- reported status of bully related involvement among youth greater than 12 years old, especially TD youth. Among these age, in contrast, over-reported rates by mother were found in autism group. Our results imply some existing problem in parenting and mental health education that warrant further investigation and improvement.

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# Effects of Theory of Mind Performance Training on Reducing Bullying Involvement in Children and Adolescents with Autism Spectrum Disorders

## 心智理論能力訓練用於降低罹患自閉症類群障礙症 之兒童青少年遭受霸凌之成效研究

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**Objective:** Involvement in bullying is prevalent among children and adolescents with autism spectrum disorder (ASD). The aim of this case-control study was to examine the effects of the Theory of Mind Performance Training (ToMPT) on reducing bullying involvement in children and adolescents with ASD.

**Methods:** A total of 26 children and adolescents received the ToMPT plus Social Skills Training (ToMPT + SST) program. Another 23 children and adolescents received the SST-only program. Participants of both groups and their mothers rated the participants' bullying involvement in recent one month on the Chinese version of the School Bullying Experience Questionnaire (C-SBEQ) before and after training. Paired t-test was used to evaluate the change of bullying victimization and perpetration between the pre-training and post-training assessments. The linear mixed-effect model was further used to examine the difference in the training effect between the ToMPT + SST and SST-only groups.

**Results:** The results of paired-t test indicated that in the ToMPT + SST group, the severities of both self-reported ( $p = .039$ ) and mother-reported ( $p = .003$ ) victimization of bullying significantly decreased from the pre-training to post-training assessments ( $p = .039$  and  $.003$ , respectively). In the SST-only group, the severity of self-reported victimization of bullying significantly decreased from the pre-training to post-training assessments ( $p = .027$ ). The results of the linear mixed-effect model indicated that compared with the SST-only program, the ToMPT + SST program significantly improved the severity of the mother-reported victimization of bullying ( $p = .041$ ).

**Conclusion:** The results of this study supported the effects of the ToMPT on reducing bullying involvement in children and adolescents with ASD.

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## Risk of Developing Type 2 Diabetes Mellitus in Adolescents and Young Adults With Autism Spectrum Disorder: A Nationwide Longitudinal Study

### 自閉症青少年和年輕成人之第二型糖尿病風險： 台灣資料庫研究

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**Background:** Studies have suggested the association between autism spectrum disorder (ASD) and type 2 diabetes mellitus (DM)-related risk factors, such as obesity and dyslipidemia. However, the association between ASD and type 2 DM remains unknown.

**Methods:** We used the Taiwan National Health Insurance Research Database for enrolling 6122 adolescents and young adults with ASD and 24488 age- and sex-matched controls between 2002 and 2009 and followed them until the end of 2011. Participants who developed type 2 DM during the follow-up period were identified.

**Results:** Adolescents (hazard ratio [HR]: 2.71, 95% confidence interval [CI]: 1.64-4.48) and young adults (HR: 5.31, 95% CI: 2.85-9.90) with ASD had a higher risk of developing type 2 DM compared with those without ASD, after adjustment for demographic data, atypical antipsychotics use, and medical comorbidities. Sensitivity analyses after excluding first year (HR: 3.03, 95% CI: 2.03-4.51) and first 3-year (HR: 2.62, 95% CI: 1.62-4.23) observation periods were consistent. Short-term (HR: 1.97, 95% CI: 1.20-3.23) and long-term (HR: 1.64, 95% CI: 1.02-2.63) use of atypical antipsychotics were associated with a higher likelihood of subsequent type 2 DM.

**Discussion:** Adolescents and young adults with ASD were more likely to develop type 2 DM during the follow-up. In addition, those with ASD using atypical antipsychotics exhibited a high risk. Therefore, further research is necessary to investigate the common pathophysiology of ASD and type 2 DM.

**Keywords:** Autism spectrum disorder; type 2 diabetes mellitus; atypical antipsychotics

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## Medication Effects on the Quality of Life and Social Impairment in Adult ADHD

### 藥物治療對成人注意力不足過動症生活品質及社交缺損之影響

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**Objective:** To investigate the medication effects on quality of life and social impairment in adults with Attention-deficit hyperactivity disorder (ADHD), compare the life quality and social functioning of adults with drug-naïve and treated ADHD, and explore the impacts of ADHD different types at childhood and adulthood.

**Method:** We assessed 176 adults with ADHD and 125 non-ADHD comparison adults aged 19-36 years in Taiwan. ADHD adults were divided into different groups according to their medication history and trajectory of ADHD subtypes. Groups were compared on co-occurring psychiatric conditions, life quality, and social functioning. Predictions of life quality and social functioning from demographic characteristics and ADHD different types were also studied.

**Results:** Adults with drug-naïve ADHD manifested the severe symptoms of other psychiatric conditions, and impairment in life quality and social functioning. The duration of medication use was associated with life quality and social functioning. Both persistent combined and other presentations of ADHD revealed significant deficits in life quality and social functioning compared with adults without ADHD. Life quality was negatively correlated with the degree of social impairment.

**Conclusion:** These findings confirmed the benefits of medication treatment not only in quality of life, but also social functioning. ADHD patients may progressively improve their life quality and social impairment with persistent medication use, although longitudinal studies are needed to confirm.

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## The Effects of imaging time on Perspective taking among Adolescents with Social Anxiety

### 對事件採取不同觀點的想像時間 對高社會焦慮青少年的影響

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黃郁珊<sup>1</sup> 洪福建<sup>2</sup>

**Objectives:** Social anxiety is one of the most common emotional problems in children and adolescents. The individuals with high social anxiety typically focus attention on their anxious feelings and negative beliefs, and see their performance from an observer perspective. Perspective-taking presents the important role of cognitive processing in socially anxious individuals. Also, worry is a significant predictor of anxiety symptoms when controlling for rumination in adolescents. A person with social anxiety may suffer from anticipatory anxiety; therefore, past memories may lead one to worry about future events and use more time to think.

**Methods:** Participants were senior high school students aged 15-18. In Study 1, high ( $n = 22$ ) and low ( $n = 24$ ) social anxiety participants completed episodic future thinking tasks for one social event and one neutral event. In Study 2, high ( $n = 21$ ) and low ( $n = 20$ ) social anxiety participants completed episodic future thinking tasks for one social event first. After that, they took a required perspective (observer or field) to imagining an episodic future thinking task for social events again.

**Results:** The results showed that the means for the highly socially anxious group on the imaging time was 110.75 ( $SD = 9.53$ ), and for the low social anxiety group was 74.479 ( $SD = 5.56$ ). That is, highly socially anxious participants reported significantly using more time than low social anxiety participants when imagining social and neutral events ( $p = 0.026$ ). Also, after experimental manipulation(observer or field perspective), highly socially anxious participants reported using significantly more time than low social anxiety participants when imagining social events.

**Conclusions:** The studies revealed that individuals who are high in social anxiety take more time to think not only when remembering the past but also when imagining the future. Moreover, after instructing high social anxiety individuals to form a field perspective, they still use more time for social events. The contents and the mechanism beyond the long period of imagining time in episodic future thinking for people with high social anxiety should be considered.

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## Bullying Victimization Related to Gender Non-Conformity during Childhood and Adolescence among Male Sexual Minorities

### 性取向屬少數之男性在兒童青少年期 因性別不順常規而遭受霸凌經驗

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林奕萱<sup>1,\*</sup> 顏正芳<sup>1,2</sup>

**Objective:** Research found that a high proportion of male sexual minorities (homosexual and bisexual) have experienced bullying victimization in their childhood and adolescence. Meanwhile, bullying victimization in childhood and adolescence increases the risk of mental health problems in early adulthood. However, there has been no study examine this issue in Taiwan. The aim of this questionnaire survey was to examine the prevalence and correlates of bullying victimization related to gender non-conformity during childhood and adolescence and its relationship with mental health problems in early adulthood among male sexual minorities in Taiwan.

**Methods:** A total of 205 males with homosexuality or bisexuality participated in this study. The prevalence and risk and protective factors of bullying victimization related to gender non-conformity were examined. The relationship of bullying victimization in childhood and adolescence with mental health problems in early adulthood was also examined.

**Results:** The results found that 38.5% and 34.1% of participants reported to be victims of traditional bullying and cyberbullying due to gender non-conformity in childhood and adolescence, respectively. Low paternal education level, low family and peer support, and self-reported high femininity were significantly associated with victimization of bullying due to gender non-conformity. Victimization of bullying in childhood and adolescence was significantly associated with high levels of depressive, anxiety, borderline, Internet addiction and pain symptoms and dissatisfaction with academic performance.

**Conclusion:** The results of this study support that the necessity of prevention and intervention programs for bullying victimization related to gender non-conformity are necessary for male sexual minorities.

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## Children's Disclosure of Sexual Abuse during Early Forensic Psychiatric Evaluation in Southern Taiwan

### 南臺灣兒童性侵害早期司法鑑定 揭露相關因子分析研究

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蔡景宏 何志培 呂俊雄 陳冠旭 周植強 李幸蓉

**Objects:** Many surveys of child sexual abuse (CSA) in Western countries have looked at the victims' disclosures and their associated factors during forensic interviews, but similar data in Asian countries is scarce. We explored the disclosure rate of CSA allegations during forensic interviews in Taiwan and the factors predicting such disclosure. We compared our findings with those of previous studies.

**Methods:** Data were collected from written forensic psychiatry reports of CSA victims who underwent Early Forensic Psychiatry Evaluations (EFPE) at two hospitals in Kaohsiung City from 2010 to 2016. All cases were divided into categories of full or non-full disclosers. We identified variables that distinguished between the two groups in bivariate analyses using the independent t-test and the Chi-squared test. Binary logistic regression analysis was done to determine whether those significant correlates in the bivariate analyses were independent predictors of full disclosure.

**Results:** Among the 62 cases, 36 (58%) were full disclosers. Older age at first interview (OR = 1.76), no diagnosis of intellectual disability (OR = 0.05), and experiencing sexual abuse more than once (OR = 6.10) were positive factors independently related to the full disclosure of CSA allegations.

**Conclusion:** The rate of disclosure under the program was comparable to that of prior studies. This may suggest a role for EFPE of children to promote disclosure of CSA allegations. We hope the findings may serve as a basis for future studies of CSA disclosure and associated factors in Taiwanese society.

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# 壁報展示

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## Is ADHD overdiagnosed or overmedicated? A nationwide survey of youths with ADHD in Taiwan from 2000-2011

### ADHD 被過度診斷或開藥嗎？ 台灣 2000 到 2011 年間 ADHD 病患的全國調查

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**Background:** Public controversy regarding the potential overdiagnosis and overmedication of children with attention-deficit/hyperactivity disorder (ADHD) have continued for decades. This study used a national reimbursement database to explore trends in ADHD diagnosis in youths and the proportion of those receiving medication, with the aim of determining whether ADHD is overdiagnosed and overmedicated in Taiwan.

**Methods:** Youths (age  $\leq 18$  years) throughout Taiwan diagnosed with ADHD (n = 145,018) between January 2000 and December 2011 were selected from the National Health Insurance (NHI) database in Taiwan as the subject cohort. We number of cases of ADHD were calculated annually for each year (from 2000 to 2011), and the number of cases per year who received medication was determined as those with at least one record of pharmacotherapy (immediate-release methylphenidate, osmotic controlled-release formulation of methylphenidate, and atomoxetine) in each year.

**Results:** The prevalence rates of a diagnosis of ADHD in the youths ranged from 0.11% in 2000 to 1.24% in 2011. Compared to children under 6 years of age, the ADHD diagnosis rates in children aged between 7 and 12 years (prevalence ratio = 4.36) and in those aged between 13 and 18 years (prevalence ratio = 1.42) were significantly higher during the study period. The prevalence in males was higher than that in females (prevalence ratio = 4.09). Among the youths with ADHD, 49.5% received medications in 2000 compared to 62.8% in 2011. The probability of receiving ADHD medication increased with age. More male ADHD patients received medications than female patients (prevalence ratio = 1.16).

**Conclusion:** The rate of ADHD diagnosis was far lower than the prevalence rate (7.5%) identified in previous community studies using face-to-face interviews. Approximately 40-50% of the youths with ADHD did not receive any medications. These findings suggest that ADHD is not overdiagnosed or overtreated in Taiwan.

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## Factors associated with outcomes of children with developmental delay in an integrated early intervention program

### 發展遲緩兒童早療介入成果的相關因素

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**Background:** Early intervention (EI) is beneficial for children with developmental delay (DD) to enhance their development and minimize disabilities. This study aimed to evaluate the retaining rate and effectiveness in a regional integrated early intervention (EI) program for children with developmental delay (DD). The factors associated with outcomes outcome was also examined.

**Methods:** During the period from February 2009 to January 2012, children who attended the program at a regional medical center in northeastern Taiwan and were less than 6 years old were enrolled in this study. The caregivers of the children were asked to fill out the Chinese Child Development Inventory (CCDI) at both the first visit and the 6-month follow-up visit. Retaining was defined as a child who was eligible in the program and completed the assessment at month 6.

**Results:** A total of 186 children with DD (mean age:  $4.0 \pm 1.4$  years) were recruited in this study, and 128 (68.8%) of the subjects were boys. Six months after the initial assessment, 90 (48.4%) children were retained in the EI program. Compared to children who loss follow-up, those who retained had lower birth weight and lower body weight at baseline. Six dimensions of children's development measured by CCDI significantly improved during a 6-month intervention. Younger age of children at recruitment, higher educational levels of children's fathers and mothers were correlated with better improvements in children's development.

**Conclusions:** These findings provide empirical evidence for the effectiveness of an integrated EI program as well as useful clues for targeting the children and their family for whom a successful intervention.

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# The relationships of insomnia and short and long nocturnal sleep durations with quality of life and the moderating effects of sex and age in Taiwanese adolescents

## 台灣青少年失眠及短期長期夜間睡眠時段與生活品質之關聯及性別及年齡的調節因素

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周文君<sup>1,\*</sup> 顏正芳<sup>2,3</sup>

**Objective:** The aims of this cross-sectional study were to examine the relationships of insomnia and short and long nocturnal sleep durations with quality of life (QOL) and the moderating effects of sex and age on the relationships after controlling for the effects of depressive symptoms in a large-scale, representative population of Taiwanese adolescents.

**Methods:** A total of 5,590 students of high schools completed the questionnaires. Self-reported Nocturnal sleep duration was measured. The severity of self-reported insomnia was measured by the Athens Insomnia Scale. Average, short and long sleepers were classified based on the self-reported nocturnal sleep duration. The levels of QOL were measured using the Taiwanese Quality of Life Questionnaire for Adolescents. The associations of insomnia and nocturnal sleep duration with QOL and the moderating effects of sex and age on the associations were examined by multiple regression analysis models to control for the effects of depression.

**Results:** The results found that after controlling for the effects of age, sex and depression, the severity of insomnia was negatively associated with all domains of QOL except for the social relationships dimension. Short sleepers had poorer family domain of QOL than average sleepers; however, long sleepers had better pain and psychological wellbeing domains of QOL than average sleepers. Sex and age had moderating effects on the associations of insomnia with several domains of QOL.

**Conclusion:** The level of insomnia and nocturnal sleep duration are significantly associated with several domains of QOL among the adolescents. Insomnia and nocturnal sleep duration should be taken into consideration when intervening adolescents' QOL.

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## Parent-Child Agreement Using the Multidimensional Anxiety Scale for Children in children and adolescents with attention-deficit/hyperactivity disorder

### 注意力不足過動症之兒童青少年在兒童多面向焦慮量表評分上的親子一致性探討

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胡慧芳<sup>1,\*</sup> 顏正芳<sup>2,3</sup>

**Objective:** A high proportion of children and adolescents with attention-deficit/hyperactivity disorder (ADHD) experience high anxiety which often prompts clinical referral and requires intervention. This study aimed to examine the levels of agreement between the reports of children and adolescents and parents on the Multidimensional Anxiety Scale for Children-Taiwanese Version (MASC-T) and the factors influencing the agreement in children and adolescents with ADHD.

**Methods:** A total of 451 children and adolescents (93 girls and 358 boys) aged 6 to 18 who had a clinical diagnosis of ADHD and their parents completed the 39-item MASC-T measuring the youths' severities of anxiety symptoms on four dimensions. The levels of agreement between youths' self-report and parents' report was examined using Intra-class correlation. The youths also completed the Children's Depression Index-Taiwan Version measuring their depressive symptoms. The parents provided current ADHD and oppositional symptoms rated on the abridged Chinese version of the Swanson, Nolan, and Pelham Version IV Scale. The diagnosis of autism spectrum disorder (ASD) was also determined based on the chart record. The influences of age, sex, ADHD, oppositional and depressive symptoms, and the diagnosis of ASD on the agreement were also examined.

**Results:** Results indicated low agreement on anxiety symptoms measured by the MASC-T in parent-child ADHD dyads. The agreements on the dimensions of anxiety on physical symptoms and social anxiety in the older group were higher than those in the younger group. The agreement on the dimension of anxiety on physical symptoms in the group with more severe depression was higher than that in the group with less depression.

**Conclusions:** Multiple sources of information are needed when the clinicians assessed the severities of anxiety symptoms in children and adolescents with ADHD. The influences of age and depression on the agreement on anxiety symptoms between youths' and parents' reports should be also taken into consideration.

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# Attention-Deficit Hyperactivity Disorder Comorbidity and Antidepressant Resistance Among Patients With Major Depression: A Nationwide Longitudinal Study

## 重度憂鬱症合併注意力不足過動症與抗憂鬱劑抗性：台灣資料庫研究

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**Objective:** The comorbidity between attention deficit hyperactivity disorder (ADHD) and major depression is common. However, the influence of ADHD comorbidity in the response or resistance to antidepressants remains unknown among patients with major depression.

**Methods:** 1891 patients with major depression and ADHD and 1891 age-/sex-matched patients with major depression only were enrolled and followed for 1 year in our study. Use of antidepressants and ADHD medications during 1-year follow-up period were assessed. Antidepressant resistance was defined as treatment failure in two or more than two different antidepressants for adequate treatment dose and duration.

**Results:** Patients with major depression and ADHD had an increased risk of treatment resistance to antidepressants (odds ratio [OR]: 2.32, 95% confidence interval [CI]: 1.63~3.32) compared with patients with major depression only after adjusting for demographic characteristics and other psychiatric comorbidities. Regular treatment for ADHD would reduce this risk (OR: 1.76, 95% CI: 0.72~4.27). Anxiety (OR: 3.15, 95% CI: 2.24~4.44) and substance use (OR: 2.45, 95% CI: 1.16~5.17) disorders were also associated with an elevated likelihood of resistance to antidepressants during the follow-up.

**Conclusions:** Patients who had dual diagnoses of major depression and ADHD were more likely to have treatment resistance to antidepressants compared with patients with major depression only. Prompt and regular treatment for ADHD would reduce this risk.

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## Clinical Characteristics Associated with ADHD with conduct disorder in children: Cases Analysis

### 罹患過動症併行為障礙兒童之臨床特徵：案例分析

*Jun-Hsiung Lu\**, *Hsing-Jung Li*, *Chi-Pui Ho*

呂俊雄\* 李幸蓉 何志培

**Objective:** Epidemiological research on hyperkinetic conduct disorder has verified that hyperkinetic conduct disorder is not only a societal but also a spiritual problem. We collected samples referred from elementary schools and observed clinical characteristics of these children. Thus we could afford prevention and intervention services for these children.

**Methods:** We collected 17 children referred to our child and adolescent mental health clinic between 2004 and 2015. We defecated the referral question, gathered background information, child behavior checklist for children, intake interview and parent child interaction observations.

**Results:** Outcomes associated with hyperkinetic conduct disorder were as following: repeated acts of aggression (86.3%), impulsivity (31.33%), inattention (52.67%), and interpersonal difficulties (76.6%), and more common among boys than girls, and the ratio was 4.51 to 1.

**Conclusions:** Our study discloses that there are repeated acts of aggression symptoms almost in our cases. In general, the prognosis for children with hyperkinetic conduct disorder is most guarded in those who have symptoms at a younger age, exhibit the greatest number of symptoms, and express them most frequently. A multi-modal approach can involve the use of behavioral interventions in which rewards may be earned for prosocial and nonaggressive behaviors, social skills training, family education and therapy, and as well as pharmacologic interventions. Finally, spiritual dimension must be emphasized through parents' marriage and family dimension.



## Symptoms of Childhood Bipolar Disorder: Cases Analysis

### 兒童期雙相情緒障礙症的症狀：個案分析

*Chi-Pui Ho\*, Philip Chik-Keung Chow, Jun-Hsiung Lu*

何志培\* 周植強 呂俊雄

**Objective:** Childhood bipolar disorder is a form of bipolar disorder that occurs in children. Children who have pediatric bipolar disorder are characterized by abrupt mood swings, periods of hyperactivity followed by lethargy, intense temper tantrums, frustration and defiant behavior. The aim of our study is to review the symptoms of 13 children meeting DSM-5 diagnostic criteria for bipolar disorder.

**Methods:** We recruited 13 children with bipolar disorder referred to our Child and Adolescent Mental Health Clinic between 2010 and 2015. Their age of onset was 12 to 16 (mean age: 14.2 years). All participants fulfilled the diagnostic criteria for bipolar disorder by the standardized psychiatric interview.

**Results:** All 13 patients were diagnosed as bipolar disorder by two qualified child and adolescent psychiatrists. The symptoms included abrupt mood swings (100%), periods of hyperactivity followed by lethargy (62%), intense temper tantrums (69%), frustration (77%), and defiant behavior (69%). Moreover, six subjects were male (46%), and seven subjects were female (54%).

**Conclusions:** As they get older, teenagers might be resentful if they feel that you're imposing treatment on them. So let them into the conversation. Try not to develop an adversarial relationship with your child over his or her treatment or medication. The risks of developing a substance abuse problem are much higher in teens with bipolar disorder than in their peers. It's also important to maintain regular routines around sleep and wake times, and to develop effective coping strategies for managing stress and distress.

## Attention-Deficit/Hyperactivity disorder Comorbid with Social Anxiety Disorder: A Case Report

### 注意力不足／過動症合併社交焦慮症之治療： 一個案報告

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個案摘要：個案為 12 歲男生，診斷為注意力不足／過動症，不專注主顯型，合併社交焦慮症。治療包括 Methylphenidate 藥物治療、認知行為治療以及家庭和學校處遇。經過 6 個月的藥物治療，個案在 SNAP-IV 中文評量 1-9 題注意力不足分數皆達到 0 或 1 分，學業表現也有明顯進步。經過 17 次的認知行為治療，中文版社交畏懼症評量表總分由 31 分下降到 20 分，在校與同學和不熟的親友互動增加，可自行去超商購物，迴避行為減少。

個案因本身能力及注意力不足症狀等影響學業表現，長期無法達到家人期待之挫折與低自尊也嚴重影響與他人之社交互動，而社交焦慮也使得 ADHD 之症狀及學業或社交功能更為嚴重，兩疾病交互影響容易造成診斷及治療之困難。此個案報告主要呈現此個案的評估與治療過程，以及相關文獻整理。

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## Comorbidity of Tourette's disorder: Cases Analysis

### 臨床上妥瑞氏症的共病情形：個案分析

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李幸蓉 蔡景宏 呂俊雄

**Objective:** Tics are neurological problems, emerge at age 5-6 years of age and reach their greatest severity between 10-12 years. Most severe tic disorder is Gilles de la Tourette's disorder. There are many common comorbid psychiatric disorders and behavior problems emerge with Tourette's disorder. It really reflects children's quality of life and learning.

**Methods:** We recruited 31 children with Tourette's disorder from our Child and Adolescent Mental Health Clinic between 2010 and 2016. Their age of onset was 6 to 18 (mean age: 13 years). All participants fulfilled the diagnostic criteria for Tourette's disorder met DSM-5 diagnostic criteria by the standardized psychiatric interview.

**Results:** All 31 patients were diagnosed as Tourette's disorder by two qualified child and adolescent psychiatrists. Comorbidity of Tourette's disorder are Attention-Deficit Hyperactivity Disorder (71%), Autistic trait/disorder (38%), Obsessive Compulsive disorder (22.6%), Adjustment disorder (22.6%), Learning disorder (18%), Intellectual disability (16.1%), Mood disorder (9.6%), Anxiety disorder (6.5%), Epilepsy (6.5%) and Somatoform disorder (3.2%). And the ration among boys than girls was 25 (80.6%): 6 (19.4%).

**Conclusions:** Tourette's disorder is a self-limited disease. It usually emerges in the early childhood, and reduced or completed resolved in adolescent or early adulthood. However comorbidity rate of emotional, behavioral and learning problems is high. The motor and vocal tic symptoms are exacerbated by comorbid ADHD, OCD, stress-related Adjustment disorder and learning disorder. It really interferes the function in social, academic, occupational function with comorbidity. Behavior therapy and psychotropic intervention are important to improve the quality of life.

## A Case of Attention deficit/hyperactivity disorder co-morbid with Internet Addiction

### 注意力不足過動症合併網路成癮之治療案例報告

*Chein-Heng Lin, M.D.*

林建亨

Neither Internet addiction nor internet gaming disorder are not an official diagnosis in DSM-5. However, lots of patients are suffering from spending much time on internet use. Ko et al.(1) reported that the prevalence of IA ranged from 1% to 36.7%. The variability in prevalence rates across the studies that were reviewed may be attributed to variations in accessibility of the internet in different countries, definitions of internet addiction and diagnostic instruments (2). Internet addiction and psychiatric co-morbidity may co-occur as a dual diagnosis and engender significant impact on patients and existing treatment services. The core symptoms of internet addiction disorder(3) includes preoccupied with the internet and withdrawal symptoms after discontinued internet use, which cause significant functional impairment. However, the treatment response is varied depending on the severity of internet addiction and the function of individual supportive system.

A 15-year-old male patient has no history of underlying systemic disease, who has visited child and adolescent psychiatric clinic at age 13 for school refusal and internet over-use. Oppositional defiant disorder is impressed and the comorbid diagnosis of attention deficit/hyperactivity disorder is also highly suspected. The psychological test was performed at age 13, which revealed full-IQ is 98 and no significant evidence to support the diagnosis of attention deficit disorder. Most conflicts against family and school teachers mostly attribute to the internet over-use; the total time spending on internet gaming activity is about 16 hours daily, which impairs his academic performance in school seriously and causes tense parent-child relational problem. Besides, significant withdrawal symptoms are also noted, including anxiety, easily irritability, and dysphoric mood. Tolerance, lack of control, continued excessive use despite knowledge of negative effects, loss of interests excluding internet, and use of the internet to escape or relieve a dysphoric mood are also noticed. The duration of these sufferings resulted from internet over-use is about 2 years. Trace back to his history before age 12, careless mistakes in school exam, difficult in sustaining attention in class, seems not to listen teacher's order, often fails to finish school works, disorganized school work, often loses things, easily distracted in school learning, squirms in seat, hyperactivity, difficult in taking turns, interrupts on others were observed by his mother. So, attention deficit/hyperactivity disorder is diagnosed. So, attention deficit/hyperactivity disorder combined with internet addictive disorder, and co-morbid with oppositional defiant disorder are impressed.

Cognitive behavioral psychotherapy has been performed since age 13, but the improvement was limited and the severity of internet use and school and interpersonal function impairment was progressed. One year after cognitive behavioral psychotherapy, the aripiprazole 2.5mg daily dose was added to improve his impulse control for increased violence in school with some physical aggression against classmates and teachers. Under aripiprazole treatment, his impulse control has significant improvement; however, he complained the difficulty in sustaining attention in internet gaming activity with distractible attention, which impaired his gaming function. Therefore, atomoxetine was added to deal with his attention problem, but under atomoxetine 80mg daily dose, he felt asleep, even under internet gaming activity. So, finally, the daily dosage of atomoxetine was adjusted to 65mg to improve daytime spirit. Under the regimen, less physical nor verbal aggression are occurred in family and school life.

Fluctuation course is reflected some vulnerability in supportive system. Besides the supportive system, the most interesting influence is the content of the internet game, the degree of violence of the internet game is associated with his impulse control; more violence content the game shows, more aggressive behavior the patient performed(4). Some theories have explained this phenomena, which include de-individuation, social learning theory, and general aggression model. Repeated violent game playing provides learning, rehearsal, and reinforcement of aggression-related knowledge structures(5). The Internet provides an environment with anonymity with less supervision, which also provides a chance to become exposed to initiate online violence, so the Internet, especially online gaming, provides a place to not only view but also self-initiate violent behavior. Besides, aggressive behaviors online are seldom prohibited or supervised. Thus, these theories suggest that the content of Internet game might contribute to aggressive behavior(5).

So, in this case, which diagnosed as attention deficit/hyperactivity disorder, oppositional defiant disorder, and internet addictive disorder, the treatment of co-morbid psychiatric disease, such as attention deficit/hyperactivity disorder, is important. In addition, the control of the content of internet game also plays an important role.

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## Demographics and social profiles of maltreated children and adolescents in Pingtung county

### 台灣屏東地區受虐兒童及青少年 之人口及社會學概況初探

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目的：本研究初步探討屏東地區兒童青少年受虐個案的人口學及社會學概況。

方法：以病歷回溯方法收集 16 個月間於南部一區域教學醫院就診之疑似受虐兒少個案。以描述性統計收集並分析其人口學特徵、受虐類型和家庭背景。以卡方檢定來探究受虐類型與家庭背景之相關性。

結果：共納入 103 位 18 歲以下疑似受虐個案。各年齡層間的人數分布無顯著差異。女性多於男性，但在 7 到 11 歲組別之男性受虐者多於女性。受虐類型最常見為身體虐待（34%），其次為性侵害（33%），疏忽（14%）和精神虐待（7%）。加害人大多為直系親屬（62%），其次為網友或陌生人。父母離異與否和受虐類型間並無顯著相關性。

結論：本研究顯示屏東地區兒少虐待最常見的相對人為個案父母，而單親家庭和父母同住的家庭在受虐類型上並無統計上的差異。

**Objective:** The current study aimed to describe the demographics, social and developmental profile of the children and adolescents visited a regional hospital for alleged maltreatment in Pingtung County.

**Method:** The study was a retrospective review of the medical records of children and adolescents (0-18 years) visited the Pingtung Christian Hospital for alleged maltreatment over a 16-month period. Descriptive data on the demographic characteristics, types of alleged maltreatment, family background and developmental and medical histories were collected and analysed. Chi-square statistics were used to test whether family factors were associated with the type of maltreatment.

**Results:** A total of 103 patients were studied. The age distribution was even between all three age subgroup (0-6 years, 7-11 years, and 12-18 years). There was a female predominance in general. However, male victims (n = 15) outnumbered female (n = 14) in the age group of 7-11 years. Physical abuse (34%) was the most common, followed by sex abuse (34%), neglect (14%) and psychological abuse (7%). Half of alleged perpetrators were parent of the child. Single parent family was not associated with particular type of maltreatment. Among the 103 children, 13% were found to have developmental disorders or mental health diagnosis.

**Conclusions:** Our study revealed that parents were most likely to be perpetrators in alleged child maltreatment in Pingtung County. There was no significantly difference in types of abuse between single parent households and dual parent households.

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## Impacts of emotion dysregulation on intrinsic functional connectivity in male youth with and without autism spectrum disorder

### 情緒調節困難對於自閉症男性以及一般男性大腦功能性連結的影響：平靜狀態功能性磁共振造影

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**Objectives:** The amygdala is implicated in emotional processing, and its dysfunction is suggested related to the pathophysiology of autism spectrum disorder (ASD). However, limited studies have dissected the complex relationships among amygdala, emotional dysregulation, and ASD. We undertook a categorical approach to investigate the impacts of emotion dysregulation on intrinsic functional connectivity (iFC) based on the amygdala for male youth with and without ASD.

**Methods:** Resting state functional magnetic resonance imaging was applied in 52 male youth with ASD (ranging 7-17 years, mean=12.4, standard deviation, SD = 2.2) and 51 typically developing controls (TDC) (mean = 12.6, SD = 2.4). Emotion dysregulation was defined by T scores of 3 subscales (Attention, Aggression and Anxiety/Depression) >180 in the Child Behavior Checklist. 36 ASD youths were categorized as having emotional dysregulation (ASD+ED), 16 ASD youth as non-ED (ASD-ED). We used one-way ANOVA to test group differences in iFC of the amygdala.

**Results:** Except full-IQ (TDC>ASD), there were no significant differences in age and motion between ASD and TDC groups. There was no significant difference in age, motion and clinical severity between ASD+ED and ASD-ED. Between-group comparison showed significantly increased connectivity of left amygdala to bilateral lingual and right supramarginal areas in ASD+ED compared to ASD-ED. However, there was no significant finding in ASD+ED or ASD-ED compared to TDC.

**Conclusion:** Our findings demonstrated that emotion dysregulation altered iFC of the amygdala in male youth with ASD. Future studies should account for the impacts of emotion dysregulation on iFC in ASD.

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## The Correlation of ADHD symptoms and EEG findings to assist clinical diagnosis.

### 過動兒的臨床特徵與腦波及活動量之相關研究

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黃玉書 金韋志 林士傑 祝國忠

**Introduction:** Attention deficit hyperactivity disorder (ADHD) is a neural and behavioral disorder. Children with ADHD exhibit inattention or hyperactivity, which affect their learning ability, familial relationships and social activities. Currently, information and data are collected via meticulous and careful standard used in pediatric psychiatric clinics and hospitals, and then the information will be further analyzed by psychiatrists to determine whether the subjects need further treatment. As brain wave technology progresses, wearable technology becomes more convenient and easier to use. Information collected by such technology provides relevant data to assist in brainwave analysis in children with ADHD. The purpose of the study is to compare the difference of the results of EEG and Motion Watch in ADHD and healthy control groups to assist diagnosis.

**Methods:** We recruit subjects from clinics and elementary schools. Each control and experimental group includes 20 males and 10 females for a total 60 subjects. The design of this study uses NeuroSky and Motion Watch to analyze children's brainwave during different activities, specifically while paying attention, relaxing, and physical activities. The recruited cases receive a research process consisting of three parts, each part lasting 20 minutes. They don't take any instruction during the first and last 20 minutes of the study as control, and CPT is performed during the middle 20 minutes. We further compare the relevancy between these data and results of CPT, in order to develop an objective, accurate and efficient tool to assist diagnosis of ADHD in children.

**Results:** Till now, there are 69 subjects, including 50 cases with ADHD (40 males and 10 females) and 19 healthy age-matched control cases. The EEG and Motion Watch results showed there is a significant difference during CPT between the ADHD group and the control group. Thus, the Motion Watch combined CPT can differentiate ADHD cases from the healthy control cases effectively ( $p = 0.021$ ).

**Conclusion:** The Motion Watch combined CPT can help clinical evaluation of the diagnosis of ADHD.

**Keyword:** ADHD, NeuroSky, MotionWatch, CPT

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## Risk Factors of Deliberate Self-Harm Continuation among Taipei High School Adolescents

### 台北市與新北市高中職青少年持續自傷之危險因子

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**Objective:** To survey the risk factors of deliberate self-harm behaviors (DSH) continuation for a 1-year follow-up period

**Method(s):** The Taiwanese Adolescent Self-Harm Project was a longitudinal study of DSH among adolescents. We recruited 5,879 students from 14 senior high schools in northern Taiwan. On-line questionnaires on sociodemographic data, suicidality, depressive symptoms, self-esteem, social support, family discord, impulsivity, and alcohol and tobacco use were assessed at baseline and at 1 year of follow-up. Logistic regression analysis was performed to evaluate the risk factors of DSH continuation, i.e. those who had DSH at baseline and repeated during the 1 year follow-up period.

**Result(s):** 5,879 adolescents were recruited. 56.73% were female. Mean age 16.02 y/o (STD 0.52). At the first year (T1), the lifetime prevalence rates of DSH were 25.04%. At the second year (T2), 4,331 (73.67%) students completed follow-up assessments. There were 212 students who had DSH at both two years and were labeled as DSH continuation group; 877 students who had DSH at T1 but not noted during follow-up were labeled as DSH stop group. Logistic regression analysis showed distal risk factors of DSH continuation were remote school district, lifetime suicide plan\_T1, familiar people mentioned suicide\_T1, depressive symptoms\_T1, alcohol use severity\_T1, low self-esteem\_T1, and students had repeated DSH history\_T1. Proximal risk factors were lifetime suicide idea\_T2, lifetimes suicide plan\_T2, depressive symptoms\_T2, alcohol use severity\_T2, low self-esteem\_T2, and more physical illness number at T2.

**Conclusion(s):** Students who had DSH in country area, those who had suicide idea/plan, with more depressive mood, with more alcohol use, more physical illness, low self-esteem and negative peer influence of suicide need more help to prevent further DSH.

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## ADHD-related Symptoms and Emotional Problems among Child and Adolescents: a Longitudinal Study

### 兒童青少年之注意力缺失過動症和情緒問題： 追蹤型研究

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**OBJECTIVE:** Although several research found associations between ADHD-related symptoms and emotional symptoms. The causality between ADHD-related symptoms and emotional symptoms is not clear. The aim of this study is to explore the causality of ADHD-related symptoms and emotional symptoms among children and adolescents longitudinally.

**METHODS:** A four-wave longitudinal study was conducted with 1253 children and adolescents in grades 3, 5 and 8 from March 2013 to January 2014. Parent's reports on ADHD-related symptoms measured using Swanson, Nolan, and Pelham, version IV (SNAP-IV) scale, which includes inattentiveness, hyperactivity, and oppositional defiant disorder (ODD). The emotional symptoms were measured by Social Difficulties Questionnaire (SDQ), which catenarities prosocial, peer problems, conduct, internalizing, externalizing. An autoregressive cross-lagged model was conducted to explore the longitudinal association between ADHD-related symptoms and emotional symptoms.

**RESULTS:** Acceptable to good model fit incises were found for SNAP-IV and SDQ. Based on the results of autoregressive cross-lagged model, ADHD traits consistently predicted emotional symptoms, but only the emotional symptoms at Wave 3 predicted ADHD traits at Wave 4, regardless of whether adjustment for sex and age. However, inconsistent and unstable temporal relationships between emotional symptoms and inattention and hyperactivity were found when we narrowed down to specific ADHD traits.

**CONCLUSIONS:** This results suggest ADHD-related symptoms and emotional symptoms were stable across one-year. However, treatment strategies for ADHD-related symptoms might offset emotional problems subsequently. We should had better early detect and treat ADHD child and adolescents as early as possible for their psychological well-being in their latter life.

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## Characteristics of prescription patterns of Medication among Children and Adolescents with ADHD –Evidence from a Psychiatric Center in Northern Taiwan.

### 過動症患者治療藥品處方趨勢分析—— 以一精神專科醫院為例

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許元彰<sup>1\*</sup> 鄭淑文<sup>2</sup> 陳質采<sup>1</sup>

**Objective:** We reviewed the medical records and the electronic database of medication claim in a psychiatric center in northern Taiwan to evaluate the Characteristics of prescription patterns of use of long-acting psychostimulant, short-acting psychostimulant and Atomoxetine in ADHD patients. The impact of gender and age were also investigated.

**Methods:** Patients who were younger than 18 years old and visited psychiatric OPD during 2009 to 2013 were enrolled. The use of long-acting psychostimulant, short-acting psychostimulants and Atomoxetine were identified. Comparison of demographic characteristics was performed to evaluate the difference between those who received such medication and those who did not. Time-series analysis was also performed to assess the trend of change of prescription rate and dosage. The prescription rate was calculated by the ratio of numbers of OPD with medication use and numbers of overall OPD visits. The prescribed dosage was evaluated by the numbers of defined daily dose of each drug. The difference of changes in prescription rate and prescribed dosage in both gender and various age groups were also evaluated.

**Results:** Gender and age differed between those who received these medications and those who did not. Boys and older children received medication treatment more frequently than girls or younger children. The prescription rate of short-acting psychostimulant, long-acting psychostimulant and Atomoxetine increased during the study period. Increase in prescribed dosage was noted in all three drugs but statistically significant increase was noted only in shorting-acting psychostimulants and Atomoxetine but not in long-acting psychostimulant. The prescribed dosage did not differ between both genders. However, as age increased, the prescribed dosage of long-acting psychostimulant, short-acting psychostimulant and Atomoxetine all increased significantly.

**Conclusion:** Pharmacological treatment becomes common in ADHD nowadays. The prescription rate and the dose of psychostimulant and Atomoxetine prescribed increased during our study period and. The trajectory of such changes, the impact of age and other correlates in the initiation of pharmacological treatment in ADHD children need further investigation

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## The relationship of Birth Month to ADHD diagnosis in different age group 不同年齡層注意力不足過動症初診病人 出生月份分析

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林健禾<sup>1\*</sup> 劉俊宏<sup>2</sup>

目的：過去研究顯示出生月份與 ADHD 的診斷與治療有關連，本研究探討不同年齡層初診 ADHD 診斷之個案出生月份分布。

方法：從 2004 年 7 月至 2016 年 3 月兒童青少年精神科門診看診資料，選取年紀 3 歲到 18 歲，共計 3923 位初診為 ADHD 孩童作分析。以描述性統計在不同年齡層（3-5 歲為學齡前階段、7-9 歲為國小低年級、9-12 為國小中年級、13-18 為國中以上）之孩童出生月份與初診 ADHD 診斷的分布情形。

結果：學齡前階段孩童的生日以 8 月份為最多（12%），以 10-12 月最少（5%）；國小低年級及中高年級皆以 8 月份為最多（12%,11%），國中以上階段以 12 月份為最多（11%），以 2 月最少（5%）。

結論：初診 ADHD 的就診個案，在不同年齡層，出生月份有不同的分布，與先前研究一致。後續研究，宜進一步探討所隱含的意義及調節因素。

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## Increased risk of attention deficit/hyperactivity disorder associated with exposure to organophosphate pesticide in Taiwanese children

### 有磷農藥暴露增加國內兒童 罹患注意力不足過動症之風險

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**Objectives:** Attention-deficit/hyperactivity disorder (ADHD) is male predominated, and the etiology remains unclear. Past studies have assessed the association of low-level organophosphate (OP) pesticide exposure with childhood ADHD cross-sectionally and prospectively. However, the results have been inconsistent. A first case-control study was performed to investigate the relationship between OP pesticide exposure and ADHD with adjusted covariates.

**Methods:** We recruited 97 doctor-diagnosed ADHD cases and 110 non-ADHD controls that were 4-15 years of age. Exposure was assessed using urinary levels of dialkylphosphate (DAP) metabolites, which are biomarkers of OP pesticide exposure. Blood lead levels and polymorphisms of two often verified dopaminergic-related genes (the D4 dopamine receptor gene DRD4 and the dopamine transporter gene DAT1) were also analyzed. The socio-demographics and lifestyles of the children as well as of the mothers during pregnancy were collected using a questionnaire.

**Results:** The blood lead levels of both groups were similar ( $1.57 \pm 0.73$  vs.  $1.73 \pm 0.77$   $\mu\text{g}/\text{dL}$ ,  $p = 0.15$ ). Significant urinary concentration differences in one of the six DAP metabolites, dimethylphosphate (DMP), was found between ADHD and control subjects ( $322.92 \pm 315.68$  vs.  $224.37 \pm 156.58$   $\text{nmol}/\text{g cr.}$ ,  $p < 0.01$ ). A dose-response relationship was found between urinary concentrations of DMP and ADHD in both crude and adjusted analyses ( $p$  for trend  $< 0.05$ ). Children with higher urinary DMP concentrations may promote a 2-3 fold increased risk of having ADHD.

**Conclusion:** We report a dose-response relationship between child DMP levels and ADHD. OP pesticide exposure may have deleterious effects on children's neurodevelopment, particularly the development of ADHD.

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## The Association between Social Skills Deficits and Internet Addiction and the Moderators in Children and Adolescents with Attention-Deficit/Hyperactivity Disorder

### 注意力不足過動症兒童青少年社交技巧缺損和網路成癮之間關聯性和調節因子

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**Objective:** The aim of this cross-sectional questionnaire survey study was to examine the association of social skills deficits with Internet addiction and the moderators for the association in children and adolescents with attention-deficit/hyperactivity disorder (ADHD).

**Methods:** A total of 300 children and adolescents aged at between 11 to 18 years who had the diagnosis of ADHD participated in this study. Their severities of Internet addiction, social skills deficits, and ADHD and oppositional symptoms were assessed by the Chen Internet Addiction Scale, the Social Skills Deficits Checklist for Primary and Junior High School Students, and the short version of Swanson, Nolan, and Pelham, Version IV Scale-Chinese version, respectively. The varieties of Internet activities that the participants have engaged in were also examined. The association of social skills deficits with Internet addiction and the moderators for the association were examined by using logistic regression analyses.

**Results:** The results of logistic regression analysis indicated that after controlling for the effects of sociodemographic characteristics, ADHD and oppositional symptoms and receiving medication for ADHD, social skills deficit was significantly associated with a higher risk of Internet addiction (odd ratio [OR] = 1.049, 95% confidence interval [CI]: 1.030-1.070). Social skills deficit was also significantly associated with several Internet activities, including Internet gaming, watching movies, and download. Maternal occupational socioeconomic status moderated the association between social skills deficits and Internet addiction.

**Conclusion:** Social skills deficit should be considered as a target in the prevention and intervention programs for Internet addiction among children and adolescents with ADHD.

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## The relation between temperament characteristics of 5-year-old extremely low-birth-weight premature children and caregivers' parenting pressure.

### 五歲極低出生體重早產兒的氣質特性 及其與照顧者親職壓力的關連性

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**目的：**本研究欲了解五歲極低出生體重早產兒氣質特徵與家長親職壓力間的關聯性，並運用研究結果協助家長了解孩子的特性，提供相關的衛教資訊，使其能用更為適切的互動與教養方式，來減低照顧上的壓力。

**方法：**共有 22 名智力 80 分以上的五歲極低出生體重早產兒及其家長參與本研究，兒童接受一對一的智力評估，智力評估工具為魏氏兒童智力量表第四版（中文版）。家長則需填寫氣質量表、活動量表及親職壓力量表，以瞭解兒童的氣質特徵和主要照顧者的壓力程度。

**結果：**結果顯示，照顧者填答的氣質量表中，活動量特質與親職壓力量表當中的親職角色限制、憂鬱、夫妻關係、社會孤立、父母健康狀況、父母分量表總分、過動／無法專注、接納性、兒童分量表總分與全量表總分呈顯著正相關，且活動量表與親職壓力間的相關性與上述一致；兒童特質中的反應閾也和親職能力、子女增強父母與接納性有顯著正相關。氣質量表中的適應度與親職角色限制、情緒、接納性及兒童分量表總分具顯著負相關，反應強度則與子女增強父母達顯著負相關，情緒本質與親職壓力中的情緒分量表達顯著負相關，堅持度和親職壓力中的憂鬱分量表達顯著負相關，注意力分散度與親職角色限制、社會孤立、父母健康狀況、情緒和全量表總分有顯著負相關。

**結論：**五歲極低出生體重早產兒的氣質特徵與親職壓力有明顯相關，其中的活動量特質，與多項親職壓力因素具顯著相關，結果顯示兒童的活動量愈大，照顧者的壓力感受度愈高，個人自由因親職角色受限愈多，愈感到社會支持系統少和社交活動受限，健康狀況和夫妻關係愈差，憂鬱程度愈高，對孩童的接納程度也愈低，且愈容易觀察到孩童無法專注的行為。因此，在後續的評估與衛教上，可明確提供家長對於活動量大的孩子之教養策略，並從中協助和引導家長學會適當的壓力管理和情緒因應技巧。

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## The performance and correlation between CPT-II and SNAP-IV in school-age children with ADHD

### 學齡期 ADHD 兒童在 CPT-II 與 SNAP-IV 上的表現與其相關性

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**目的：**本研究欲了解我國低中高年級的 ADHD 兒童在電腦化注意力測驗上的表現，以及父母師長對其 ADHD 症狀的觀察評估，除探究患童症狀隨年齡層不同的改變外，也了解臨床情境中的注意力評估及平日症狀表現的相關性。

**方法：**共有 57 名智力 80 分以上的學齡期 ADHD 兒童參與本研究，分別為低年級 30 名、中年級 20 名、高年級 7 名，受試者在未服藥的情況下，接受一對一的智力及注意力評估，智力評估工具為魏氏兒童智力量表第四版（中文版），注意力評估工具為克氏持續度表現測驗第二版（CPT-II）。另外，家長及老師亦分別填寫 SNAP-IV 量表，以評估兒童在家庭及學校情境中的 ADHD 症狀表現。

**結果：**電腦化注意力測驗上的表現顯示，Hit Reaction Time Standard Error、Variability of Standard Error、Perseverations、Hit Standard Error ISI Change 與年級呈負相關。家長所填量表結果則顯示，患童的過動症狀數與年級呈負相關；但教師所填量表結果與年級無相關。家長所填寫量表的過動症狀嚴重度與電腦化注意力測驗的 Hit Reaction Time ISI Change 呈正相關；教師填寫量表的注意力症狀數與電腦化注意力測驗的 Omissions、Commissions、Variability of Standard Error 呈正相關，而注意力症狀嚴重度與電腦化注意力測驗的 Commissions、Variability of Standard Error 呈正相關。

**結論：**學齡期 ADHD 兒童的年級愈高，在電腦化注意力測驗上的反應速度穩定性愈好，做出預期性反應或隨意作答的比率也愈少。據父母觀察患童的年級愈高，在日常生活情境中的過動症狀數愈少，但據教師觀察患童在學習情境中的症狀並未因年級變化而有所不同。家長觀察到活動量愈高的患童在注意力測驗上配合作業變化調整反應的能力愈差；在學校情境中，注意力愈差的患童在注意力測驗上的反應速度愈不穩定，漏答和誤答也愈多。

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## Dysfunctional Gamma Band Oscillations in Autism Spectrum Disorder

### 功能障礙性腦伽馬波於自閉症之研究

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**Objective:** Autism spectrum disorder (ASD) is a neurodevelopment disorder involving  $\gamma$ -aminobutyric acid (GABA). Sensory abnormalities, particularly in the auditory modality, are commonly seen in individuals with ASD. Since GABA system plays a key role in generating neuronal gamma oscillations, this study aims to investigate whether ASD patients have impairments in gamma-band auditory steady-state response (ASSR) which is an auditory event-related potential.

**Method:** Fifty-four patients with ASD, and forty-four typical developing (TD) participants were recruited. Subjects were presented three click trains with rates of stimulation at 20, 30 and 40 Hz, respectively. The ASSR was recorded through a 32-channel electrode cap. Single-electrode ERSP (Event-Related Spectral Perturbation), evoked power, induced power, and ITC (Inter-Trial phase Coherence) indices were derived from the electroencephalogram (EEG) signals.

**Results:** The ASD group showed lower ERSP power in the temporal, parietal, occipital region and smaller ITC in temporal area in response to 30 Hz click trains. Regarding 40 Hz click train stimulation, no group differences in ERSP power and ITC were observed. As for the evoked power, lower evoked power was observed in temporal, parietal, occipital, and frontal regions in response to 30 Hz stimulations in the ASD group.

**Conclusion:** These findings suggested different auditory responses to train stimulation in subjects with ASD. The results revealed the abnormality of the basic sensory processing in ASD due to the group differences of ERSP power, evoked power, and ITC in 30 Hz of the EEG responses were observed. In this study, the ASD group shows dysfunctional cortical neuron oscillations in gamma band range.

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## Neural substrates of theory of mind for autism spectrum disorder participants and healthy controls – the social animation task

### 社會動畫作業的心智理論： 自閉光譜疾患者及健康控制組的神經機轉異同

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**Introduction:** Theory of Mind (ToM) refers to the ability to understand another person's mental states and intentions (Frith & Frith, 2003), and is essential to the development of social interaction skills. Past research has shown that individuals with autism spectrum disorder (ASD) have poorer ToM functions, and are thus less able to predict others' behavior based on their mental states (e.g., Baron-Cohen, Leslie, & Frith, 1985). Functional neuroimaging studies have revealed regions engaged during ToM-related processes, including the temporo-parietal junction (TPJ), medial prefrontal cortex (mPFC), and temporal poles (Castelli et al., 2000). Compared to healthy controls, participants with ASD display different patterns of activation in these regions during ToM processes (Castelli et al., 2002).

**Methods:** The present study incorporated functional magnetic resonance imaging (fMRI) to explore the differences in ToM between participants with ASD and healthy controls. There were 20 participants in the ASD group (all males, aged 12-25, mean age: 18.1 years) and 21 healthy controls (all males, aged 10-30, mean age: 18.9 years). Age and IQ scores were balanced between groups. The social animation paradigm (Castelli et al., 2000) was used. The task involved short animations of two triangles moving either interactively with social intentions (ToM condition) or randomly (Random condition). Participants were instructed to view these animations inside the scanner and make a response by pressing a yes or no button after each animation, indicating whether the triangles were moving in a way to reflect social interaction intentions. The study implemented a block design, with 8 blocks of either ToM or Random animations. There were two sessions (16 blocks). The whole task took 10 minutes and 16 seconds.

**Results:** Within-group neuroimaging analyses of the [ToM - Random] contrast, with a threshold of  $p < .05$  FWE-corrected in the voxel level, showed that healthy controls and participants with ASD both displayed significant greater activations in the bilateral middle temporal gyri (MTG) extending to the TPJ and the inferior parietal lobule (IPL). Moreover, participants with ASD displayed additional activation in bilateral middle frontal gyri (MFG), while healthy controls displayed activation in the right inferior frontal gyrus (IFG) and temporal pole. Between-group analyses showed that under the [ToM - Random] contrast, the ASD group exhibited more activation in bilateral IPL and the precuneus ( $p < .05$  FWE corrected in the cluster level) as compared to healthy controls.

**Conclusions:** The findings indicate that participants with ASD might have deficits on understanding another person's mental states and intentions, as indicated by more pronounced activations in the ToM network during viewing socially meaningful animations, suggesting a more effortful psychological process.

**keywords:** theory of mind, social animation, fMRI, autism spectrum disorder

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## Prevalence and trend of child psychiatric disorders: Comparison between national survey and National Health Insurance Claims data in Taiwan

### 台灣兒童精神疾病盛行率與 趨勢健保資料庫與田野調查之比較

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陳儀龍<sup>1\*</sup> 高淑芬<sup>2</sup>

**Object:** To address the lack of national statistics on mental health in children, we used claims data from the TNHIRD to determine the prevalence and trend of childhood mental disorders from 2000 to 2012 and compared the results of a national survey of child mental disorders in Taiwan.

**Methods:** 860 children in grades 3, 5, and 7 were enrolled in our national survey in Northern and Central Taiwan in June to November, 2015. Mental disorders were assessed using a modified version of the semi-structured interview, Affective Disorders and Schizophrenia for school-age children. A total of 31,951 participants aged 8 to 14 in TNHIRD in 2012 were randomly selected from the TNHIRD as counterparts. A repeated cross-sectional sample in TNHIRD from 2000 to 2012 were selected with numbers of participant ranged from 31,951 to 39,645.

**Results:** ADHD (13.01%) and phobia (5.12%) were most common mental disorders and the prevalence of autism was 0.70% in survey results. By contrast, the most common disorders are ADHD (2.40%) and autism (0.32%) in TNHIRD. Most psychiatric disorders in TNHIRD were significantly underestimated than in survey study. Increasing prevalences of most childhood psychiatric disorders in TNHIRD were found from 2000 to 2012.

**Conclusions:** These findings provide the first nationwide prevalences data for a variety of childhood psychiatric disorders. The prevalences found in survey study were similar to the global estimates. The significantly underestimated prevalence on childhood psychiatric disorders in TNHIRD suggests that there has huge room for requirement and improvement on education, assessment, treatment, and prevention of childhood psychiatric disorders.

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## Parent-Child Agreement on the experiences of bullying involvement in children and adolescents with attention-deficit/hyperactivity disorder

### 親子間對於注意力不足過動症之兒童青少年涉入霸凌經驗描述之一致性和影響因子研究

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李柏翰<sup>1,\*</sup> 顏正芳<sup>1,2</sup>

**Objective:** A high proportion of children and adolescents with attention-deficit/hyperactivity disorder (ADHD) experience peer bullying which often prompts clinical referral and requires intervention. This study aimed to examine the levels of agreement between the reports of children and adolescents and parents on the experiences of bullying involvement at schools and the factors influencing the agreement in children and adolescents with ADHD.

**Methods:** A total of 452 children and adolescents (92 girls and 360 boys) aged 6 to 18 who had a clinical diagnosis of ADHD and their parents completed the School Bullying Experience Questionnaire measuring the youths' various types of experiences of bullying and being bullied at school. The levels of agreements between youths' and parents' reports were examined using Intra-class correlation. The influences of age, sex, ADHD, oppositional, depressive and anxiety symptoms and the diagnoses of autism spectrum and conduct disorders on the agreement were also examined.

**Results:** Results indicated low agreement on the experiences of bullying involvement in parent-child ADHD dyads. Age and hyperactivity/impulsivity, oppositional, depressive and anxiety symptoms had significant influences on the agreement on the victimization of physical bullying. Age had significant influence on the agreement on the perpetration of physical bullying.

**Conclusions:** Multiple sources of information are needed when the clinicians assessed the experiences of bullying involvement at schools in children and adolescents with ADHD. The influencing factors on the agreement should be also taken into consideration.

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## Sex/gender differences in the white matter integrity of the emotional network between ADHD and healthy control group using diffusion spectrum imaging

### 以擴散頻譜造影探討注意力不足過動症於情緒相關白質纖維之性別差異

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**Objective:** Clinical samples of attention-deficit/hyperactivity disorder (ADHD) have been dominated by males, but little is known about the sex/gender differences among adults with ADHD. Female with ADHD usually have more serious internalizing problems and emotional difficulties than male group. Previous studies have showed that four fiber tracts were related with emotion processing, such as cingulum bundle, fornix, uncinated fasciculus, and thalamic radiation. However, no study has examined the sex/gender differences of these tracts in patients with ADHD using diffusion spectrum imaging (DSI). Therefore, this study aimed to use the DSI and the tractography-based automatic analysis (TBAA) to investigate the sex/gender differences of the white matter integrity of emotional network between male and female with ADHD.

**Method:** 68 adults with ADHD (34 men, mean age, 28 ± 6.2 years; 34 women, mean age, 29 ± 7.2 years, respectively), and 68 age- and IQ-matched healthy control (34 men, mean age, 29 ± 7.2 years; 34 women, mean age, 29 ± 6.2 years, respectively) were assessed by the comprehensive psychiatric interviews and Wechsler Adult Intelligence Scale for 3rd version. The TBAA method were used to analyze the white matter integrity.

**Results:** A multivariate general linear model was used to examine the differences of emotional network among group (ADHD, healthy control) and gender (male, female), and age was used as a covariate to minimize the effect on the study variables. An interaction was found between group and gender. Post-hoc analysis was suggested that female with ADHD showed significantly lower white matter integrity of the emotional network than male with ADHD and healthy control groups. In addition, there was a negative correlation between the score of the Adult ADHD Self-Report scale (ASRS) and the white matter integrity of the emotional network in female with ADHD.

**Conclusion:** Our findings suggest that female with ADHD showed lower white matter integrity of the emotional network as compared with other groups. In addition, the white matter integrity of the emotional network in female with ADHD may be associated with severe emotional problem. Therefore, the emotional network might play a key role in sex/gender difference.

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## Neural correlates of processing categorical relatedness in youths with autism spectrum disorder

### 自閉症青少年處理類別語意關係之神經機制

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**Objective:** Communication and semantic processing deficits in individuals with autism spectrum disorders (ASD) have been demonstrated by aberrant neural activity during semantic processing. However, it is little known whether processing categorical relatedness would differ between youths with ASD and typically developing youths. This issue is important to discover the neural bases of conceptual systems in ASD. The present study aimed to examine the neural correlates of semantic judgments while processing categorical relatedness in the functional magnetic resonance imaging (fMRI).

**Method:** Thirty-four male youths with ASD (mean age = 12.3 years) and thirty-five age-, sex-, and handedness-matched typically developing (TD) youths (mean age = 12.0 years) were asked to decide if Chinese characters pairs were semantically related. The categorical relatedness (categorical rating) was an item-level parametric modulator that served as a continuous variable to determine if brain activation was systematically correlated with categorical relatedness.

**Results:** For the ASD group, the lower categorical relatedness produced greater activation in left middle temporal gyrus (MTG). For the TD group, the higher categorical relatedness produced greater activation in right precuneus. Moreover, the ASD group showed greater activation in left MTG for the lower categorical relatedness as compared to the TD group. The TD group showed greater activation in the right precuneus as compared to the ASD group. This study reveals differential neural mechanisms of processing categorical relatedness between the two groups.

**Conclusions:** The ASD group may more rely on semantic information for processing less overlapping features in the lower categorical relatedness. In contrast, the TD group may be more effectively to integrate many overlapping semantic features between characters in the higher categorical relatedness.

**Keywords:** Autism spectrum disorders (ASD), categorical relatedness, semantic feature

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## Effectiveness of the Multimodal Group Psychotherapy Program for School-Age children with Attention-Deficit/Hyperactivity Disorder

### 注意力不足／過動症兒童多重模式團體治療方案成效評估初探

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目的：本研究目的為從實證臨床實務的角度，針對注意力不足／過動症國小學童，從不專注、過動／衝動、對立反抗行為三個面向，探討門診短期多重模式團體治療成效，作為未來此類團體治療模式之改進參考。

方法：研究受試者為 30 名就讀小一到小四學童，經醫師診斷有注意力不足／過動症，同意參與門診團體治療方案研究。研究採用短期多重模式團體治療，主要以遊戲為媒介，運用行為改變技術，訓練其專注力、注意力持續度及衝動控制，後期加入人際互動訓練課程，加強其人際互動技巧與問題解決能力。另外，針對這些學童之家長提供親職管理效能訓練，並安排回家作業居家進行注意力訓練。研究分別於初診心理衡鑑日、團體治療第一次、團體治療最後一次，請家長填寫 Swanson, Nolan, and Pelham, version IV (SNAP-IV) 評量表。統計分析採用成對樣本 T 檢定 (Paired-Samples T Test) 比較受試者在三個評估時間點之不專注、過動／衝動、對立反抗行為頻率變化。

結果：30 位受試者，男性為 23 位 (76.6%)，女性為 7 位 (23.4%)，平均年齡 8.5 歲。研究分析注意力、過動／衝動、對立反抗行為三個面向。比較初診心理衡鑑與團體治療第一次之間卷分數，受試者在後者不專注的頻率顯著變高，過動／衝動與對立反抗行為頻率略增但無顯著差異。比較團體治療第一次與團體治療最後一次之間卷分數，受試者在後者不專注的頻率與對立反抗行為頻率都顯著變低，過動／衝動頻率略減但無顯著差異。

結論：基於上述研究結果，注意力不足／過動症國小學童接受短期多重模式團體治療方案，其注意力與對立反抗行為有明顯改善，過動／衝動略有改善，此支持從個案與家長同時介入施行短期多重模式團體治療有其助益。未來可以更進一步探討多重模式團體治療中各種處遇對行為改變之影響，讓此方案更為精實且有效。

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## Psychotherapy of Dealing Fantasy for the Bully Issue in an Adolescent with Autistic Spectrum Disorder

### 受霸凌泛自閉症疾患青少年 伴隨誇大幻想之心理治療歷程

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背景與目的：泛自閉症疾患在情緒與社交互動上有實質的障礙，因而在學校環境中難以融入團體生活，亦由於能力的缺損使其遇到霸凌時無法尋求更好之協助，語言表達與情緒障礙在受霸凌後尋求師長協助的另一道難題，故在此部分了解個案整體情緒狀況將有助於協助其尋求他人協助。

個案報告：個案為 15 歲男性，就讀國中二年級，於民國 104 年 2 月就診疑似自閉症類群障礙症並有憂鬱症狀，持續服用抗憂鬱藥物，於同年 6 月因在校受霸凌問題，導致情緒不穩、易怒、常關於房門內、具攻擊傾向等問題而由醫師轉介臨床心理師接受心理治療。心理治療頻率為每周一次，一次 50 分鐘，至 104 年 3 月已進行 19 次心理治療，起初針對霸凌問題做介入、包含討論受霸凌者之可能特質與遇霸凌時因應策略，同時情緒宣洩與社交技巧習得亦為治療目標，而個案表達能力差為治療歷程之阻礙之一，此部分多透過抽象圖卡、桌遊、遊戲等媒介引導。在與個案逐漸建立治療關係後，個案開始描述多個誇大的幻想內容，其一為參加夏令營時遇到火燒山，將半個台中燒光，另外為描述自己是節目製作者，將於中秋節製作鬼片於全台放映引起人民之恐慌，更多內容描述自己為領導者常出國參加國際性實驗比賽，並有將被霸凌狀況誇大說法，此些部分由治療師多加詢問下內容會不段延伸且誇大，此時便面臨考量須讓個案繼續講誇大幻想促進情緒宣洩抑或不加制止下會增強此行為之兩難，過程雖曾挑戰個案幻想內容虛實，個案仍堅持並多有內容補充不合理之處，故此部分治療師仍讓個案敘述並嘗試從同理情緒；然在治療歷程可見其明顯治療成效包含有效的關係建立可提升個案對人之信任感，透過媒材的使用間接降低表達能力不佳之影響。

討論：透過治療歷程中個案描述之幻想內容與現實社會之結合，不難聯想其部分內容反映自我情緒，包含對於外在的害怕、恐懼，同時也在幻想世界中誇大自我能力來滿足現實中自我能力的不足，此部分除短期治療內需協助情緒宣洩外，在實質提升人際技巧來獲得現實的滿足更為重要，此外在學校部分老師處理問題多著重於個案描述之內容虛實，而少顧及背後感受，這種狀況將讓個案情緒更加不穩，此點便是需結合醫療專業人員與學校導師共同瞭解之目標，以增進處理相關泛自閉症疾患之霸凌問題。

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## Comparison of the Symptoms, Behavioral Problems and Psychosocial Factors between Clinic- and Community-Based Preschool Children at High Risk for Attention-Deficit Hyperactivity Disorder

### 學齡前 ADHD 臨床組和社區組高風險族群在症狀、行為問題和心理社會因子的比較

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目的：注意力不足過動症（Attention Deficit Hyperactivity Disorder，ADHD）的症狀通常在學齡前期開始出現，其核心症狀會延續到兒童及青少年期。本研究藉由父母和教師的行為問卷，瞭解學齡前臨床 ADHD 高風險組兒童與社區 ADHD 高風險組兒童之間的差異

方法：比較臨床 ADHD 高風險組兒童（52 位）、社區 ADHD 高風險組兒童（52 位）及控制組兒童（258 位）在評估 ADHD 的臨床症狀（Swanson, Nolan, and Pellham, Version IV Rating Scale-Parent/Teacher Form，SNAP-IV）、行為問題（阿肯巴克實證衡鑑系統，The Child Behavior Checklist，CBCL）、父母教養類型與教養壓力，之差異。

結果：在利用二元邏輯回歸分析臨床 ADHD 高風險組及社區 ADHD 高風險組組間有差異之變項，結果顯示臨床 ADHD 高風險組的兒童傾向於在教師評估的症狀及行為問題較嚴重；而社區 ADHD 高風險組的父母則傾向採取忽略型的教養態度且有較高的親職愁苦。

討論：本研究結果反映了教師角色、父母教養態度及父母本身壓力在影響學齡前 ADHD 高風險兒童就診的重要性。

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## Broader Autism Phenotype and Life Adjustment of Children and Adolescents with ASD Sibling in Taiwan

### 泛自閉症兒童及青少年的手足之 廣泛自閉症表現型特質與其生活適應關係

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**Objective:** This study would like to raise social attention on the siblings of autism and go further on the research of the genetic characteristics of the broader autism phenotype, Broader autism phenotype (BAP). It should be a crucial factor to understand their feelings about the disorder, sibling relationship, illness perception and sibling adjustment. The objectives of this study were to: (1) compare the broader autism phenotype between the siblings with ASDs, ADHD and normal development; (2) compare the illness perception between the siblings with ASDs, ADHD and normal development; (3) compare the sibling relationship between the siblings with ASDs, ADHD and normal development; and (4) explore the sibling adaption between siblings with ASDs, ADHD and normal development.

**Methods:** This study was a cross-sectional case-control survey, using the demographic characteristics, Wisconsin Card Sorting Test-computer Version 4 (WCST-CV4), Autism-spectrum Quotient (AQ), Illness Perception Questionnaire Revised (IPQ-R), Sibling Relationship Questionnaire (SRQ), and Strengths and Difficulties Questionnaire (SDQ) will be used for the siblings with ASDs, ADHD, and normal cognitive development. Subsequently, the results will be analyzed by Statistical Package for Social Sciences software (SPSS), version 17.0, descriptive statistics, and inferential statistics, including the Chi-Square test, ANOVA.

**Results:** Siblings from 19 ASDs, 17 ADHD and 34 normal development participants between March, 1, 2015 to March 31, 2016, in the Kaohsiung Municipal Kai-Syuan Psychiatric hospital. Although the study is still in progress and data is also being collected.

**Discussion:** The authors assume that the broader autism phenotype of siblings may be affected the most, and the illness perception of sibling, relationship with sibling and sibling adjustment will be thereby influenced. Parents and Nursing providers should pay more attention to sibling adjustment issues in the future.

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## Reinforcement sensitivity and Its Relationships with Internet Addiction and Internet Activities in Children and Adolescents with Attention-Deficit/Hyperactivity Disorder

### 注意力不足過動症兒童青少年回饋敏感度 與網路成癮及活動之關聯性

Pei-Yun Lin<sup>1,2\*</sup>, Cheng-Fang Yen<sup>1,2</sup>

林貝芸<sup>1,2\*</sup> 顏正芳<sup>1,2</sup>

**Objective:** The aim of this cross-sectional questionnaire survey study was to examine the association of reinforcement sensitivity with Internet addiction and Internet activities in children and adolescents with attention-deficit/hyperactivity disorder (ADHD).

**Methods:** A total of 300 children and adolescents aged at between 11 to 18 years who had the diagnosis of ADHD participated in this study. Their severities of Internet addiction, reinforcement sensitivity, and ADHD and oppositional symptoms were assessed by the Chen Internet Addiction Scale, the behavioral inhibition and approach systems (BIS/BAS), and the short version of Swanson, Nolan, and Pelham, Version IV Scale-Chinese version, respectively. The varieties of Internet activities that the participants have engaged in were also examined. The association of reinforcement sensitivity with Internet addiction and Internet activities were examined by using logistic regression analyses.

**Results:** The results of logistic regression analysis indicated that after controlling for the effects of sociodemographic characteristics, ADHD and oppositional symptoms and receiving medication for ADHD, fun seeking on the BAS was significantly associated with a higher risk of Internet addiction (odd ratio [OR] = 1.232, 95% confidence interval [CI]: 1.068-1.421). Fun seeking on the BAS was also significantly associated with several Internet activities, including online gaming, online chatting, instant messaging, using BBS, watching movies, and download.

**Conclusion:** Fun seeking on the BAS should be considered as a target in the prevention and intervention programs for Internet addiction among children and adolescents with ADHD.

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## Social Cognition in Autism: A Taiwanese Version of the Reading the Mind in the Eyes Test

### 自閉症孩童的社會認知： 以台灣版的眼神情緒識別作業為例

*Tai-Shan Li<sup>1</sup>, Susan Shur-Fen Gau<sup>1,2,3,4</sup>, Tai-Li Chou<sup>1,3,4</sup>*

李岱珊<sup>1</sup> 高淑芬<sup>1,2,3,4</sup> 周泰立<sup>1,3,4</sup>

Emotion recognition is defined as the ability to read subtle cues associated with the emotional states of another person. These cues can be both visual and verbal signals related to internal emotional states. Thus, it is important to integrate emotion recognition and the perception of social cues to understand social cognition (Adolphs, 2009; Gallese et al., 2004; Gallese, Rochat, Cossu, & Sinigaglia, 2009; Vellante et al., 2013). Conversely, deficits on emotion recognition are implicated in psychopathology (Decety & Moriguchi, 2007; Maggini & Raballo, 2004). In particular, eye gaze is an important social cue and includes the critical components of joint attention. Impaired perception to eye gaze is shown as cognitive control deficits in patients with autism spectrum disorder (ASD) (Dichter & Belger, 2007). This study aimed to examine social-cognitive impairments in patients with ASD using the Eyes Test. A total of 21 patients with ASD and 21 healthy controls were recruited in this study. They received the Reading the Mind in the Eyes test (Eyes Test). The target word to describe the mental state for each photograph was translated to Traditional Chinese and based on the original response items by Baron-Cohen et al. (2001). Response time and accuracy were recorded from all the participants. There was a significant difference in accuracy between these two groups,  $[T(1, 38) = 1.365, p = .015]$ , with the patient group less accurate than the control group. Moreover, a significant difference was found in response time,  $[T(1, 38) = 2.024, p = .01]$ , with the patient group slower than the control group. The findings suggest that compared with controls, patients with ASD show impaired abilities to perceive mental states in the Eyes Test.

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## One year trajectory analysis for ADHD symptoms and its associated factors in community samples of Taiwan

### 社區族群兒童青少年注意力不足過動症狀 之一年軌跡分析與其預測因子

*Chia-Jui Tsai<sup>1,2</sup>, Yi-Lung Chen<sup>3,4</sup>, Hsiang-Yuan Lin<sup>3</sup>, Susan Shur-Fen Gau<sup>2,3,4\*</sup>*

蔡佳叡<sup>1,2</sup> 陳儀龍<sup>3,4</sup> 林祥源<sup>3</sup> 高淑芬<sup>2,3,4\*</sup>

**Background/Objective:** Limited studies have identified different developmental trajectories of attention deficit/hyperactivity disorder(ADHD) symptoms in large community samples of children and adolescents.

**Methods:** This prospective study consisted of 1,281 students in grade 3, 5 and 8 with a four-wave quarterly follow-up within one year. Main outcome measures, symptoms of inattention (IA), hyperactivity-impulsivity (HI) and opposition-defiance (OD), were rated by the SNAP-IV. Group based trajectory modeling were applied in the three of symptom groups and developmental stages. Multivariable regression analyses with stepwise selection were undertaken to explore the factors (e.g. sex, externalizing behavior, internalizing behavior, functions at school and home, and perceived family's function) associated with differentiating trajectories.

**Results:** All the trajectories in 3 symptom groups were classified as Low (33.6-37.8% of participants across grades), Intermediate (48.9-57.1%) and High (9.3-11.7%) based on the symptom severity. In regression analyses, lower functions at school and home in the IA group, lower functions at school, higher externalizing problems, lower perceived family functions in the HI group, alongside higher externalizing problems, lower functions at school and home in the OD group, were significantly associated and could predict the High severity trajectory. Being female and having high prosocial behaviors had protective effects for the high IA and HI trajectories.

**Conclusions:** The High trajectories identified in the current community cohort of a large sample size conform to the prior results of prevalence for ADHD. Functions at school and home, level of externalizing problems and perceived family function are major factors in predicting and differentiating the trajectories, and could serve as the intervening targets.

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<sup>4</sup> 台大公共衛生學院流行病學與預防醫學研究所

## Structural difference in youth with Attention-Deficit/Hyperactivity Disorder with emotional dysregulation as compared to those without: A voxel-based morphometry study

### 注意力不足過動症的兒童青少年 合併情緒障礙與否之腦部結構比較

*Chia-Jui Tsai<sup>1,2\*</sup>, Hsiang-Yuan Lin<sup>3</sup>, Isaac Wen-Yih Tseng<sup>4</sup>, Susan Shur-Fen Gau<sup>2,3</sup>*

蔡佳叡<sup>1,2\*</sup> 林祥源<sup>3</sup> 曾文毅<sup>4</sup> 高淑芬<sup>2,3</sup>

**Background/Objectives:** Emotion dysregulation (ED) is common in Attention-Deficit/Hyperactivity Disorder (ADHD) but pathophysiology associated with ED in ADHD remains under-investigated. This study aimed to explore brain structures underpinning ED by comparing ADHD youth with ED problems to those without and to typically developing controls (TDC).

**Methods:** Voxel-based morphometry was performed to obtain gray matter (GM) and white matter (WM) volumes in 83 youth with ADHD (aged 7 to 18 years) with ED, 65 youths with ADHD without ED, and 138 TDC without ED. The ED severity was defined by the subscales of Anxiety/Depression, Attention, and Aggression in the Child Behavior Checklist, and those with ED problems were specified by the sum of T-score of these subscales larger than 180. General linear analyses of the proportional volumes of brain regions, adjusting for age, full-scale IQ, and sex were used to for the group comparison.

**Results:** ADHD youth with and without ED, alongside TDC did not differ significantly in total GM or WM volumes. For regional volume, ADHD without ED had significantly greater GM volumes than ADHD with ED in the left para-hippocampal gyrus, left superior frontal gyrus and right mid-cingulate gyrus. ADHD without ED had no regional difference as compared with TDC. However, they had the same pattern of increasing volume over left middle frontal gyrus and decreasing volume over the right middle temporal gyrus as their ED severity scores increased.

**Conclusions:** Our findings suggest that the conflicting reports on the atypical neuroanatomy of ADHD may substantially originate from their comorbid ED status in the study samples.

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<sup>4</sup> 台大醫學院光電醫學研究中心

## Bullying Involvement in Children with Autism Spectrum Disorder: A Path Analysis

### 自閉症孩童霸凌及被霸凌徑路分析研究

Mei-Ni Hsiao, MA<sup>\*1</sup>, Yueh-Ming Tai, MD, PhD<sup>2</sup>, Susan Shur-Fen Gau, MD, PhD<sup>1</sup>

蕭嫩妮<sup>\*1</sup> 戴月明<sup>2</sup> 高淑芬<sup>1</sup>

**Objective:** Bullying in school is a major public health problem both domestically and internationally. Children with autism spectrum disorder (ASD) is considered to be at risk of bullying involvement. This study aims to explore the psychological pathways from autistic symptoms to the mother-reported states of being bullied (bully-victim) and bullying (bully-perpetrator) among children with ASD.

**Method:** A total of 104 children with ASD (male: 87.5%, age: 13.34±0.32 years) participated in this study involving a survey with mother-reported retrospective measures of Social Responsiveness Scale (SRS), Social Adjustment Inventory for Children and Adolescents (SAICA), Swanson, Nolan, and Pelham, version IV (SNAP-IV) and Child Behavior Checklist (CBCL). The frequency of being bullied (Bully-victim) and bullying (Bully-perpetrator) among children with ASD were evaluated by two questions with items rated as “1” for never and “4” for always. Bivariate correlation analyses and path analyses for mother-reported results were conducted using SPSS (version 20) and AMOS (version 20). To facilitate further analyses, we defined the negative response if 1 and positive response if 2 (sometime), 3 (frequent) or 3 (always).

**Results:** According to mothers' reports, more than half of children with ASD were bully-victims (54.8%) and bully-perpetrators (57.7%) (Table 1). Some behavioral characteristics (i.e., hyperactivity, opposition, aggressive behavior, anxiety/ depression, attention problems, delinquent behavior and behavior problems, thought problems, and withdraw) were significantly correlated to the bullying involvement (Table 2). However, those behavioral characteristics were strongly inter-correlated (Table 3). Thus, path analysis (Figure 1 and 2) was conducted to reveal a possible pathway beginning from autistic symptom, passing through social withdrawal and attention problem, resulting in problematic behaviors, and then ending with bully-victim or bully-perpetrator.

**Conclusions:** The results confirm the previous evidence that children with ASD is at high risk of bullying involvement. Besides, there are some behavioral characteristics mediating the effects of autistic symptoms on bullying involvement. Our findings imply children with ASD might greatly benefit from early managements of problematic behaviors to prevent getting involved in both being bullied and bullying others.

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## Associations among Preschool Temperament, Parental Attitudes, and Symptoms of ADHD/ODD

### 學齡前幼童氣質、教養態度與 ADHD/ODD 症狀之關係

*Yu-Chi Chen<sup>1</sup>, Yin-Syuan Chen<sup>1</sup>, Shoou-Lian Hwang-Gu<sup>1,2</sup>,  
Hsing-Chang Ni<sup>2</sup>, Sophie Hsin-Yi Liang<sup>2</sup>, Hsiang-Yuan Lin<sup>3</sup>,  
Chiao-Fan Lin<sup>2</sup>, Susan Shur-Fen Gau<sup>3,4</sup>*

陳昱圻<sup>1</sup> 陳尹璇<sup>1</sup> 古黃守廉<sup>1,2</sup> 倪信章<sup>2</sup>  
梁歆怡<sup>2</sup> 林祥源<sup>3</sup> 林俏汎<sup>2</sup> 高淑芬<sup>3,4</sup>

**Objective:** Temperament, one of the major factors of vulnerability in psychopathological development, has been found to be significantly related to Attention Deficit Hyperactivity Disorder (ADHD) and Oppositional-defiant Disorder (ODD). Moreover, the relationship between temperament and ADHD/ODD may be affected by other factors. The goal of this study was to explore whether parental attitudes mediate the effects of temperament on symptoms of ADHD/ODD.

**Method:** We recruited 362 preschoolers in Taiwan (310 children from communities, and 52 children from clinical referrals). Bootstrapping methods were used to analyze the mediating effect of parental attitudes (The Preschool Parents' Attitude Scale from Zheng's (1983) study) on preschoolers' temperament (The Temperament Assessment Battery for Children from Wang's (2006) study), and ADHD/ODD symptoms (the average scores of parents' (Gau et al. 2008) and teachers' (Gau et al. 2008) rating scores on the Chinese version of the Swanson, Nolan, and Pellham Version IV Rating Scale, SNAP-IV).

**Results:** The results demonstrated that activity level and distractibility factors of temperament predicted the severity of inattention and symptoms of hyperactivity/impulsivity, and the quality of mood factor of temperament predicted ODD symptoms. Further, the respect for the child factor of parenting attitude mediated the effect of the approach/withdrawal factor of temperament on hyperactivity/impulsivity completely, and mediated in part the quality of the mood factor of temperament on ODD symptoms.

**Conclusions:** Our findings revealed that parental attitudes have an important effect in the relationships between preschooler temperament and symptoms of ADHD/ODD.

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<sup>1</sup> 長庚大學職能治療學系行為科學所臨床心理學組; <sup>2</sup> 林口長庚醫院兒童心智科; <sup>3</sup> 台大醫院精神醫學部; <sup>4</sup> 台灣大學醫學院精神科





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台灣精神醫學會

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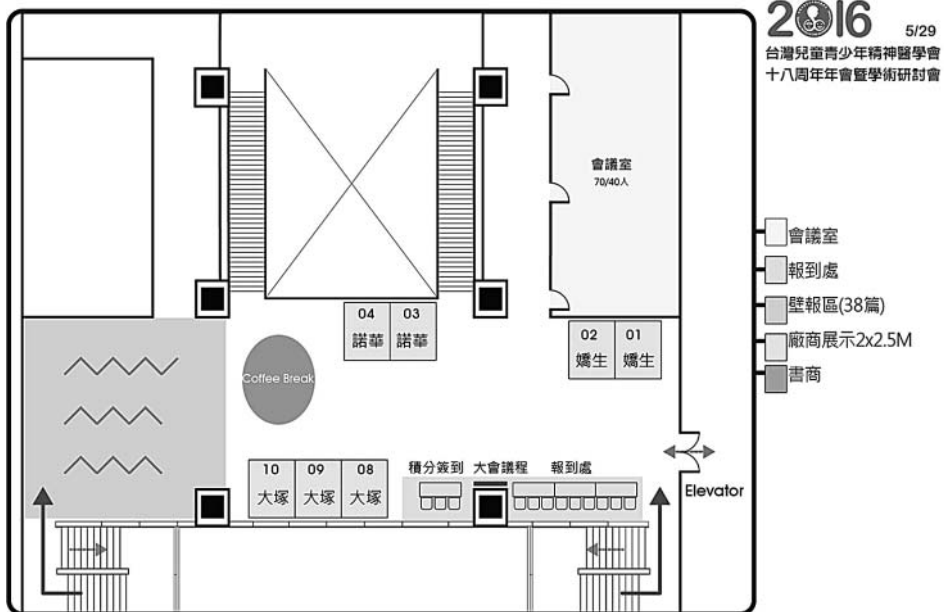
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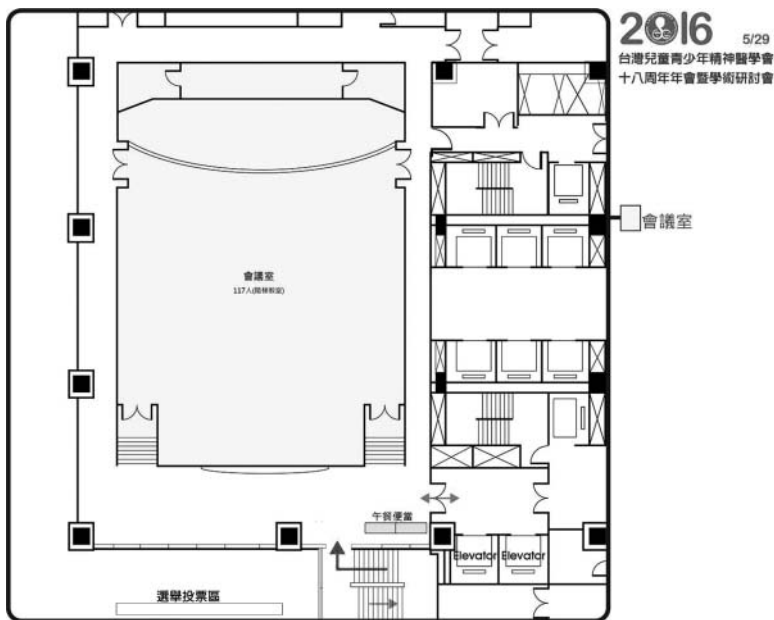
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# 平面圖

平面圖



集思交通部會議中心 2F GALAXY



集思交通部會議中心 3F GALAXY



台灣兒童青少年精神醫學會  
Taiwanese Society of Child and Adolescent Psychiatry  
十八周年年會暨學術研討會  
18<sup>th</sup> TSCAP Annual Meeting

提供注意力不足過動症患者跨越生命期程的臨床服務  
Clinical Services Across Lifespan and Generation in ADHD

參加證明  
certificate of attendance

茲證明

君

研習時數共6小時

未加蓋學會印章視同無效

May 29, 2016 (Sunday)

交通部集思國際會議中心  
GIS MOTC Convention Center

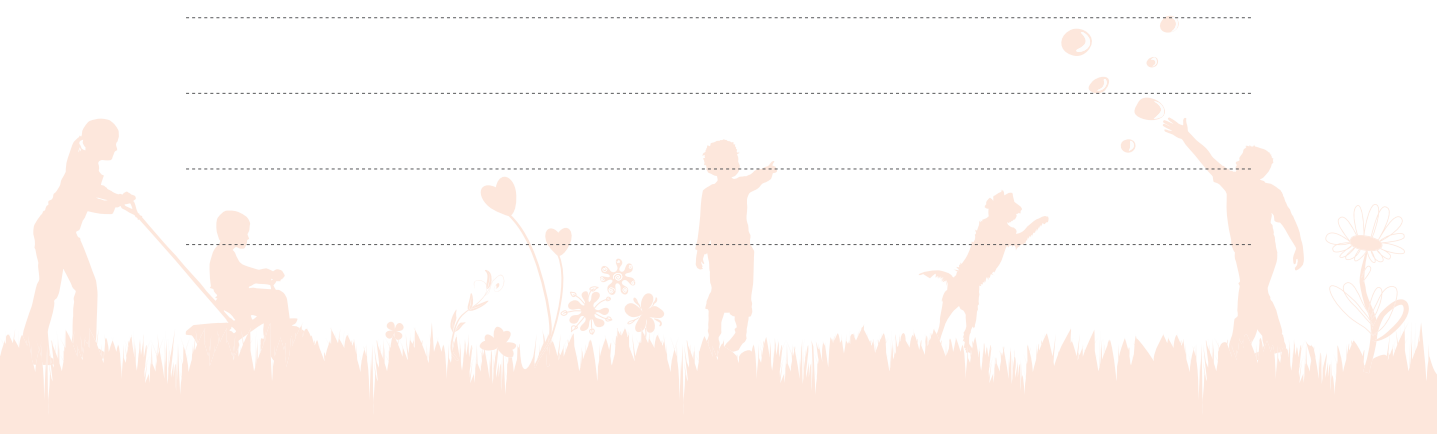






# Memo

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對精神分裂症病患而言

**Seroquel XR 提供：快速調藥**

○ 精神分裂症急性治療劑量

建議劑量時間表

天	第一天	第二天	第三天
Seroquel XR	300mg	600mg	400mg至800mg



北市衛藥廣字第104060169號  
衛署藥輸字第024885號、024886號、024887號、025001號

使用前詳閱說明書警語及注意事項  
詳細仿單資料備索

**AstraZeneca** 

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TEL: (02)2378-2390 FAX: (02)2377-0914  
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越過情緒起伏...



衛生福利部已核准：

## 治療雙極性疾患的鬱症發作、 躁症發作或混合發作

### ○ 雙極性疾患的鬱症發作

Seroquel XR 應每天晚上服用一次，到第四天達到每天300mg

建議劑量時間表

天	第一天	第二天	第三天	第四天
Seroquel XR	50mg	100mg	200mg	300mg

### ○ 雙極性疾患的躁症發作／混合發作

Seroquel XR應每天服用一次

建議劑量時間表

天	第一天	第二天	第三天
Seroquel XR	300mg	600mg	400mg至800mg



衛署藥輸字第 024885號、024886號、024887號、025001號

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伴隨之疼痛  
身體症狀

緊張

無時無刻  
的擔憂

莫名的哭泣

失去興趣

疲倦



# 緩解憂鬱和其疼痛 重回美好生活



## 為何選擇 Cymbalta 60mg 一天一次：

### ➤ 有效的SNRI

Cymbalta 是有效的血清素及正腎上腺素再吸收抑制劑

### ➤ 同時治療情緒及疼痛身體狀況，提高緩解率

一天一次60 mg 可同時治療憂鬱症的情緒及伴隨之疼痛身體症狀，具高的緩解率



Cymbalta (duloxetine HCl)

● **適應症：** 重鬱症、糖尿病週邊神經痛、廣泛性焦慮症

● **用法用量：** 重鬱症每日建議劑量為40mg至60mg，有些病患可能必須以30mg一天一次開始治療一個星期，病患可在提高劑量至60mg一天一次以前適應藥品；糖尿病週邊神經痛的每日建議劑量為60mg一天一次，耐受性可能較差的病患，應考慮使用較低的起始劑量；廣泛性焦慮症於開始治療的第一週以30mg一天一次給藥，病患得以在劑量調高至60mg一天一次以前適應本品。Cymbalta應完整吞服，不需考慮進食與否。

● **使用禁忌：** 合併Cymbalta或在停止Cymbalta治療後5天內，禁止使用MAOI以治療精神疾患；停止MAOI治療後14天內，亦禁用Cymbalta於治療精神疾患。正在接受linezolid治療或靜脈注射亞甲藍的病患禁用Cymbalta。患有未控制之狹角性青光眼的病患應避免服用此藥。

● **常見副作用：** 噁心、口乾、嗜睡、便秘、食慾降低、多汗。

所有接受抗憂鬱劑治療的病患，包含治療任何適應症，應被適當監測與緊密觀察是否發生病況惡化、自殺行為和行為異常改變，尤其是治療初期數月或劑量改變時(包括增加劑量或減低劑量)。詳細資料、不良反應、警語與注意事項等，請參照 Cymbalta 藥品仿單。

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電話：(02)2715-2950  
北市衛藥廣字第105020046號



# Strattera 持續顯著的療效 全天改善孩子的ADHD



## 治療ADHD之非中樞神經興奮劑

- 非管制藥，不會造成藥物濫用
- 可治療Tics 孩子的ADHD
- 可治療焦慮 孩子的ADHD

## 全天持續的療效

- 增進學習成效
- 穩定情緒與人際關係
- 改善家人互動



Strattera能透過全天持續療效，增進孩子學習成效

睡眠	起床-早餐	白天	下午-晚上	睡眠
孩子	孩子/家人	孩子/學校 (學業/人際關係)	孩子/家人	孩子
<b>Strattera全天持續的療效</b>				

思銳 Strattera® (atomoxetine HCl)

適應症：注意力缺損/過動症。

使用方法：• 體重70公斤以下的孩童和青少年開始的每日總劑量約0.5mg/kg，至少三天後，每日總劑量增加至約1.2mg/kg。每日總劑量超過1.2mg/kg時，並未證實有增加效益。

• 每日總劑量不應超過1.4mg/kg或100mg。

• 體重超過70公斤的孩童和青少年以及成人 開始的每日總劑量應為40mg，至少三天後，每日總劑量增加至約80mg。最大每日總劑量建議為100mg。

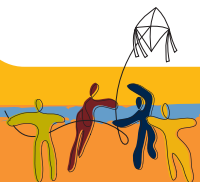
使用禁忌：• 思銳不應與 MAOI 併用，或在停用 MAOI 兩星期內服用。罹患嗜絡細胞瘤或有嗜絡細胞瘤病史，嚴重心血管疾病的病患，對atomoxetine 或任何賦形劑過敏及狹角性青光眼的病人不應使用。

• 於孩童及青少年常見副作用(>5%，且至少為安慰劑病患發生率的两倍)：噁心、嘔吐、疲倦、食慾降低、腹部疼痛及嗜睡。

• 於成人常見副作用(>5%，且至少為安慰劑病患發生率的两倍)：便秘、口乾、頭暈、食慾降低、暈眩、勃起困難及排尿遲緩。

詳細不良反應與注意事項請參閱 Strattera 藥品說明書。

北市衛藥廣字第104060026號  
衛署藥輸字第024514、024515、024516、024517、024518號



**strattera**  
atomoxetine HCl

Lilly

# Apo-Atomoxetine Capsules

## 安思定膠囊

10mg/ 衛部藥輸字第026194號

25mg/ 衛部藥輸字第026193號

60mg/ 衛部藥輸字第026197號

18mg/ 衛部藥輸字第026195號

40mg/ 衛部藥輸字第026196號



10mg

18mg

25mg

40mg

60mg

- ➊ 加拿大知名藥廠**APOTEX**製造，通過**PIC/S**。
- ➋ 可與食物併服或空腹服用，停藥不須逐漸減量。
- ➌ 長期治療，病童之平均體重與身高接近或超過預期。
- ➍ 適用**ADHD**合併有**Tourette's Disorder**或焦慮疾病之病患。
- ➎ 非管制藥品，不具戒斷作用。

中市衛藥廣字第10408134號

WHOLE  
WIN

**A** APOTEX INC.



鴻汶醫藥實業有限公司

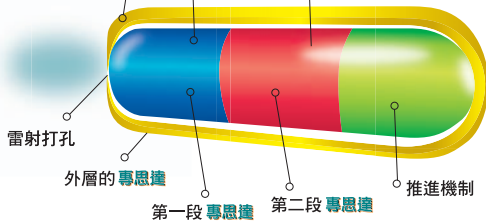
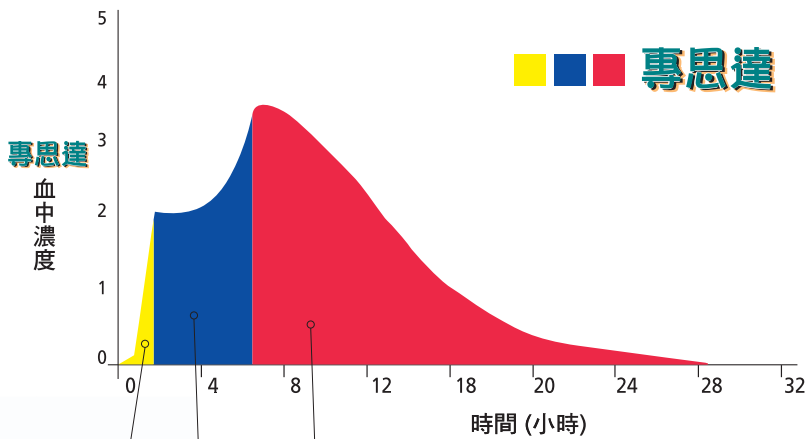
# 專思達

## 全心守護ADHD孩童

### From Home to Homework



- 7:00 am 服用一顆CONCERTA<sup>®</sup>專思達
- 8:00 am 專心上課四個小時，小case！
- 12:00 pm 和同學一塊吃午餐！
- 1:30 pm 上數學課，老師誇我做得又快又正確！
- 3:00 pm 到操場玩遊戲，同學都想跟我同一隊！
- 4:00 pm 吃個點心，晚上還要加油呢！
- 6:30 pm 家庭作業做完囉！媽媽好開心！YA !!!



1. 早晨：外層包裹的專思達可以在第一小時內迅速吸收。
2. 一小時後：推進機制吸收液體後膨脹，就像是一個滲透幫浦，平穩傳輸的專思達，提供整個早晨有效治療的濃度。
3. 下午：更高劑量的專思達在下午釋放出來，形成上升型的藥物血中濃度，不受食物影響，繼續提供穩定的療效。

一天一次  
**CONCERTA<sup>®</sup> 專思達**  
methylphenidate HCl  
一定收心·學習專心

專思達長效錠 18 毫克 衛署藥輸字 第 023731 號  
專思達長效錠 27 毫克 衛署藥輸字 第 023999 號  
專思達長效錠 36 毫克 衛署藥輸字 第 023880 號  
專思達長效錠 54 毫克 衛署藥輸字 第 024229 號  
北市衛藥廣字第 105050062 號

嬌生股份有限公司  
**楊森藥廠**

地址：台北市敦化南路二段319號8樓  
電話：02-2732-6611 傳真：02-2735-0838  
消費者免付費專線：0800-211-688

**janssen**  
Janssen-Cilag  
Johnson & Johnson

使用前詳閱說明書警語及注意事項

MKT-CON-TW-0005



Taiwanese Society of Child and Adolescent Psychiatry  
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<http://www.tscap.org.tw/>