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講述論文發表



Predictors and mental health of gender dysphoria in adults with autism spectrum disorder

自閉症成人性別不安之預測因子及精神健康表現

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Background: Increasing cross-sectional research has demonstrated the overrepresentation of gender dysphoria in individuals with autism spectrum disorder (ASD). However, there is still a paucity of study detailing the proportion of gender dysphoria in adults who are diagnosed with ASD early in life, possible predictors of gender dysphoria, and associated mental health and quality of life.

Method: This is a prospective longitudinal study with 109 adults with ASD and 110 typically developing adults, who were enrolled from 14.24-year-old years and followed up for 6.52 years. Based on Adult Self-Report Inventory-4, item 29, “I wish I was the opposite sex,” of the ASRI-4, gender dysphoria was defined if the report was sometimes”, “often” or “very often”. Then, we applied with several well-validated measures (Social Responsiveness Scale, Chinese version of the School Bullying Experience, Cyberbullying Questionnaire, and World Health Organization Quality of Life) to compare the differences between adults with and without gender dysphoria in terms of psychopathology, quality of life, and experienced bullying in the school or on the internet. Furthermore, we measured the characteristics of family support, family bonding, and prior autistic symptoms (in adolescence) to set up a prediction model for current gender dysphoria in adulthood.

Result: In this longitudinal cohort, there were more adults with gender dysphoria in the ASD group [n = 29 (26.6%)] compare to the typically developing group [n = 15 (13.6%)]. ASD participants with gender dysphoria presented with the more social function deficit, depression, anxiety, compulsion, inattention, hyperactivity, somatic symptoms, more experiences with school bullying and cyberbullying, and much worse in quality of life (Cohen’s d = 0.69). The prediction model indicated that lower perceived family support and more sensitivity to social awareness during adolescence may predict gender dysphoria in adulthood.

Discussion: Adults who were diagnosed with ASD in childhood had an overrepresentation of gender dysphoria compared to typically developing adults. Gender dysphoria in adulthood might coincide with poor outcomes in multiple domains of mental health and life quality, especially for adults with ASD. It is necessary to raise more clinical and research attention to the associations between gender development, mental health and quality of life in individuals with ASD across the lifespan.

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Inattention, Spatial Working Memory, Anxiety, and Depression Mediate the Associations between ADHD and Real-World Executive Functions

注意力不足、空間記憶、焦慮、和憂鬱為注意力 不足過動症和現實世界執行功能關係的中介因子

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Objective: Executive function deficits, assessed by neuropsychological tests, are commonly observed in children and adults with attention-deficit hyperactivity disorder (ADHD). However, there is not enough evidence to show impaired real-world executive functions in ADHD, and no study has investigated the mediators for the link between ADHD and executive functions. This study aimed to test whether psychopathology and spatial working memory affect the relationships between ADHD and executive functions.

Methods: We recruited 246 adults with a clinical diagnosis of ADHD according to DSM-5 and 275 non-ADHD controls, aged 16-40 year-old. All the participants completed the Behavior Rating Inventory of Executive Function (BRIEF, real-world executive functions), Swanson, Nolan, and Pelham-Version IV (ADHD-related symptoms), and Adult Self-Report Inventory-4 (anxiety and depressive symptoms). They also received the Wechsler Adult Intelligence Scale 3rd edition and spatial working memory of Cambridge Neuropsychological Test Automated Battery. We treated ADHD diagnosis as the predictor and BRIEF as the dependent variables in the mediation analysis models.

Results: We found that ADHD exerted indirect effects on real-world executive functions, assessed by behavioral regulation index (BRI), metacognition index (MCI), and global executive composite (GEC), through inattentiveness, anxiety, depression, oppositional (only BRI), and spatial working memory (only BRI and GEC) but the significant mediation effect of spatial working memory disappeared after controlling for age, sex, and IQ. There was no mediation effect from hyperactivity/impulsivity symptoms. In addition to the indirect effects, ADHD had direct effects on the three indexes of BRIEF after considering all the mediation effects tested and confounding factors controlled in the models.

Conclusion: Our findings suggest that inattention, anxiety, and depression may be the specific measures for developing intervention programs for late adolescents and adults with ADHD to offset the impaired real-world executive functions. The mediation effect of spatial working memory on this association needs further research.

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The subjective and objective performance of mind wandering task in adults with ADHD

注意力不足過動症成人在心理游離作業下的主客觀表現

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Objectives: Mind-wandering (MW) is everyday experiences in daily life, no matter deliberate and unintentional MW. However, individuals with attention-deficit/hyperactivity disorder (ADHD) tend to experience more MW, particularly the unintentional type MW, that reflecting individuals with ADHD had the difficulties in controlled processing and had the problems with inhibiting distracting information. The present study aims to examine whether the types of probe-caught MW (subjective self-reported performance, ie. Deliberate, Unintentional, and Focusing statement) vary by group and have a significant impact on performance (mean hit RTs and mean percentage error rates) in the MW task, especially for adults with ADHD.

Methods: Participants included 24 adults with ADHD and 25 adult normal controls. All Subjects conducted the MW task, that is combined the Sustained Attention to Response Task (SART) and thought-probe method. *The ADHD diagnosis was made by the Chinese version of the Kiddie epidemiologic version of the Schedule for Affective Disorders and Schizophrenia (K-SADS-E) based on DSM-V criteria for adult ADHD. The ex-Gaussian distribution also was used to estimate the RT by μ , σ , and τ .*

Results: The current results showed that adults with ADHD had more commission errors, and shorted μ value than controls that implicated adults with ADHD had impulsive response patterns in SART. Moreover, adults with ADHD had more unintentional WM than controls; in further, the current study showed adults with ADHD had a more poor performance as they were in unintentional WM, according to they had more response errors than controls in unintentional WM in SART.

Conclusions: The current study demonstrated that adults with ADHD had an impulsive response in SART. In further, adults with ADHD also had more unintentional WM than TD, especially their performance were seriously interrupted by MW, but not for controls, that imply adults with ADHD had less attentional capacity in MW.

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Continuous Effectiveness of Taiwan WHO-AS Caregiver Skills Training Programme at the post-pilot stage

世界衛生組織發展遲緩兒童親職技巧訓練方案之臺灣持續性成效分析

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Objective: Due to limitations of accessing intensive early intervention programs for children with developmental delays (DD) in areas where professional resources are scarce or not affordable, World Health Organization (WHO) and Autism Speaks (AS) developed Caregiver Skills Training Programme (CST). Taiwan has joined in WHO-AS CST since 2016 and made some adaptation. Taiwan CST team reported the significant positive effect of the pilot study in 2019 and launched promotion project thereafter. This report aims to present the continuation of the effectiveness of Taiwan WHO-AS CST at the initial post-pilot stage.

Method: Taiwan CST consists of 9 group sessions, 3 individual home visits and 7 phone follow-ups, which helps the caregivers to have better understand and acceptance of their children with DD, and to use daily home activities and play routines to facilitate their development and learning. We analyzed data of 20 families enrolled from 4 sites, including northern/southern Taiwan and an offshore island, with parent-reported questionnaires before and after intervention in this report. Paired t-test was used to evaluate the parenting skills, confidence and empowerment of the caregivers, and the adaptive skills and health problems of their children.

Results: The result showed that caregivers' confidence for parenting skills increased more than 20% ($p=.00$), their children's communication, community use, functional academics, and home living related adaptive skills improved 20-25% ($p<.05$), and the health related behavioral problem was also diminished 25% ($p=.00$) significantly.

Conclusions: It suggested that, under the supervision of the full trained Taiwan master trainers (MTs), Taiwan WHO-AS CST has successfully continued to show its significant effectiveness on empowering caregivers and supporting development of their children at the initial post-pilot promotion stage.

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The Mediator Role of Opposition, Withdrawal Play between Autistic Symptoms and Emotional Dysregulation among Taiwanese Youth

對立反抗及社交畏縮對於自閉症與 情緒失調間之中介效果分析

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Objective: Emotion dysregulation (ED) is a symptom characterizing autistic spectrum disorder (ASD) and also a common symptom of attention-deficit/hyperactivity disorder (ADHD), opposition defiant disorder (ODD) and depression.

Method: Assuming there are mediation effects other psychometric symptoms between ASD and ED, we collected 217 ASD and 124 typical development (TD) children and examined the single and multiple mediation effects of symptoms of ADHD, ODD, anxiety/depression and behavior problems between the ASD-ED link. To ensure the robustness of our results, we also collected parent-reported SRS total score as the continuous predictor variable in the sensitivity analysis.

Results: In line with previous literature, besides symptoms of ADHD and behavior problems, the ED also is found to be inherent to ASD. Children with autistic symptoms and/or ASD diagnosis more likely to be parent- and self-reported their status of ED than TD counterparts. However, only the parent-reported child ED condition, either irritability or impairment, shows salient mediation effects of opposition and withdrawal symptoms after excluding all the interactions between other relevant symptoms and/or misbehaviors. In that, these patterns become not so salient among children with typical developing.

Conclusion: Our findings reconfirm the salient mediation effects of opposition and withdrawal symptoms between ASD and ED, and the discrepancy between parent- and child- reported ED status and suggest alternative managements of ED by mitigating their mediator symptoms.

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A Randomized, Double-Blind, Placebo-Controlled, Two-way Cross-over Clinical Trial on ORADUR[®] — Methylphenidate in Taiwanese Children and Adolescents with Attention-Deficit/Hyperactivity Disorder

一項多中心、隨機分配、雙盲、安慰劑對照控制、雙 向交叉設計以評估 ORADUR[®] — Methylphenidate 對 患有注意力不足過動症的兒童青少年療效的臨床試驗

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M.D., Ph.D.², Chih-Hung Chen, M.D., Ph.D.³, Chi-Yun Shang, M.D., Ph.D.⁴*

高淑芬¹ 黃玉書⁴ 葉啟斌² 陳錦宏³ 商志雍¹

ABSTRACT: Objective: This study aims to assess the efficacy and safety of the ORADUR[®]-Methylphenidate extended release (ER) compared with placebo in children and adolescents with Attention-Deficit/Hyperactivity Disorder (ADHD) in Taiwan.

Method: This was a Phase III, multi-center, randomized, double-blind, placebo controlled, two-way cross-over clinical trial. The sample consisted of 110 children and adolescents with ADHD, aged 6-18 years old, recruited from three medical centers in Taiwan. Of the 100 subjects in the intent-to-treat population, 99 participants (72.7% male) received at least one dose of ORADUR-Methylphenidate ER Capsule or placebo during the 2-week treatment period for each phase. The primary efficacy measure was the Swanson, Nolan, and Pelham-IV-teacher form (SNAP-IV-T). Secondary efficacy measures included the SNAP-IV-parent form (SNAP-IV-P), Clinical Global Impression: ADHD-Severity (CGI-S), Clinical Global Impression: (CGI-I), Conner's teacher's rating scale score, and investigator's rating on the 18 ADHD core symptoms according to the DSM-5 diagnostic criteria. Moreover, information about the vital signs, body weight, physical examination, laboratory tests and detailed questions about adverse effects were also collected. Data were analyzed on an intent-to-treat basis.

Results: Without differences in demographics and baseline measures, both treatment groups showed significant reduction in ADHD symptoms after treatment for two weeks with greater effect sizes in the ORADUR-Methylphenidate ER group (p values < 0.05), regardless of informants. For the primary efficacy measure, ORADUR-Methylphenidate ER was significantly superior to placebo evidenced by lower and greater reduction in SNAP-IV-T at endpoint (p=0.005) and from baseline to endpoint (p=0.006), respectively. There were no serious adverse events (AE) during this clinical study period. The most frequently observed AE in participants while receiving ORADUR[®]-Methylphenidate was decreased appetite (49.1%). Most variables of physical and laboratory tests were within normal range. No drug-related serious adverse event was observed.

Conclusions: Once-daily ORADUR[®]-Methylphenidate atomoxetine is an effective, well-tolerable, and safe treatment for children and adolescents with ADHD.

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Using normative model analysis to assess longitudinal changes of the structural connectivity in autism spectrum disorder

應用常模分析以探討自閉症類群 腦部結構連結的縱貫變化

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Objective: Studies have suggested atypical developmental trajectory of white matter in the individuals with autism spectrum disorder (ASD). However, little is known about whether the age effects on structural connectivity differ between ASD individuals and typically developing controls (TDC). This study aims to investigate white matter integrity by diffusion tensor imaging in ASD by a longitudinal follow-up analysis on the normative model.

Methods: We recruited 59 individuals with ASD (male $n = 53$, 89.8%). The mean ages of first enrollment were 15.5 ± 3.9 years and the follow-up latencies were 4.3 ± 1.9 years. We calculated z-scores of the fractional anisotropy (FA) for the candidate neural tracts in comparison to the normative data. One sample t-test was performed for time 1 and time 2 separately, and paired t-test was performed to examine whether z-score changed from time 1 to time 2.

Results: We found that several tracts had abnormal FA at both time 1 and time2 (e.g., callosal fibers connecting the dorsolateral prefrontal cortices, superior and middle temporal lobes) while several tracts had abnormal FA at time 1 but normal FA at time 2 (e.g., callosal fibers connecting the ventrolateral prefrontal cortices, and amygdala). After paired t-test of the z-scores between time 1 and time 2, we found that several tracts had significantly higher FA z-scores at time 2 than time 1.

Conclusion: Our findings may support aberrant structural connectivity and altered development of the connectivity in the individuals with ASD individuals. These findings warrants further validation.

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Shared intrinsic functional connectivity alterations as endophenotypes for ADHD: a resting-state functional magnetic resonance imaging study with sibling design

注意力不足過動症患者的手足其腦部內部網路的聯結是否呈現出家族風險性：靜息態功能性磁振影像研究

Huey-Ling Chiang^{1,2}, Susan Shur-Fen Gau¹

江惠綾^{1,2} 高淑芬¹

Objective: Although aberrant intrinsic functional connectivity has been reported in attention-deficit/hyperactivity disorder (ADHD), no study has explored whether cross-network connectivity is related to the familial risk of ADHD. Here we aim to investigate intrinsic functional connectivity between the default-mode network (DMN) and other brain regions as a potential endophenotype in ADHD.

Methods: Fifty-three ADHD probands, their unaffected siblings (n=53) and 53 typically developing controls received clinical and neuropsychological assessments and underwent resting-state functional magnetic resonance imaging scans. A seed-based approach based on bilateral precuneus (hubs of default-mode network, DMN) was used to derive intrinsic functional connectivity with DMN. The differences of connectivity among the three groups were tested with one-way ANOVA using randomized permutation. Comparisons between groups were also performed to examine the increase or decrease in connectivity. The severity of ADHD symptoms was used to identify brain regions where symptom severity is related to change in connectivity with DMN.

Results: Both ADHD probands and unaffected siblings showed increased functional connectivity between DMN and key brain regions of the salience and frontoparietal network (i.e., the left insula and left inferior frontal gyrus) when compared to controls. Post-hoc analysis showed that higher intrinsic functional connectivity with the DMN was correlated with better performance in attention and response inhibition only in the control group. A higher level of ADHD symptoms was correlated with increased cross-network functional connectivity between DMN and bilateral fronto-parietal-temporal regions in ADHD probands.

Conclusions: Increased cross-network resting-state functional connectivities with DMN account for the underlying familial risks of ADHD.

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Changes in structural connectome following treatment of intermittent theta-burst stimulation over the bilateral posterior superior temporal sulcus in children with autism spectrum disorder

重複性顱磁刺激術作用於雙側背顱葉溝上側溝對於兒童青少年自閉症大腦白質連結性的影響

Hsing-Chang Ni¹, Yi-Ping Chao², Chun-Hung Yeh³, Ying-Zu Huang⁴, Hsian-Yuan Lin⁵

倪信章¹ 趙一平² 葉俊宏³ 黃英儒⁴ 林祥源⁵

Objectives: Theta burst stimulation (TBS), which can produce similar after-effects to traditional repetitive transcranial magnetic stimulation, but with a much shorter duration, and with fewer total stimulus pulses and lower stimulus intensity, is considered more convenient and acceptable as a potential biological intervention for autism spectrum disorder (ASD). To date, there has been no in-vivo investigation of neuroplastic effects on connectome in ASD following long-term intermittent TBS (iTBS). Herein we aimed to address this objective by conducting a randomized, double-blinded, sham-controlled and parallel trial, on the bilateral posterior superior temporal sulcus (pSTS).

Methods: 31 children and adolescents with ASD were recruited and assigned randomly to the pSTS (n=15; one female; mean age=12.2 years; mean IQ=87.3) or sham-control group (n=16; all male; mean age=12.7; mean IQ=84.6). The participants received either iTBS or sham stimulations twice per week for 4 weeks. Multishell high angular resolution diffusion imaging was acquired at baseline and at 4 weeks after the onset of intervention. Network-based statistics (NBS) were employed to identify subnetworks of brain connections that exhibit significant treatment by time interactions.

Results: The group by time interaction revealed two statistically significant subnetworks. The first subnetwork (FWE-corrected p=0.040) consisted of the connection between the left temporal parietal junction (DMN) and left superior parietal lobule (dorsal attention), in which pSTS group exhibited an increase in structural connectivity, whereas sham group demonstrated a decrease in connectivity of this subnetwork following 4-week treatment. The second network (FWE-corrected p=0.004) involved connections between 3 nodes, including the left inferior frontal gyrus (frontoparietal network), left orbitofrontal, and left ventromedial prefrontal cortex (both in DMN). Specifically, this interaction was associated with an increase in structural connectivity in the sham group, among connections that otherwise remained unchanged in the pSTS group.

Conclusion: Our preliminary results suggest that the 4-week iTBS over bilateral pSTS could induce neuroplastic changes in structural connectivity between the social network and other high-cortical functioning networks in autistic children. We will further investigate how these white matter changes correlate with symptomatic changes following longer iTBS treatment.

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Childhood Trauma is Associated with Dysfunctional Corticostriatal Circuit in Bipolar Disorder Adults

兒童期創傷與成人躁鬱症患者的皮質紋狀核迴路失功能有關

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Objective: Bipolar disorder (BD) is a severe mental illness with cognitive function impairment, which may be mediated by corticostriatal circuits dysfunction. Additionally, childhood trauma has been found to be linked to corticostriatal circuit dysfunction, which is also a risk factor for BD. In the current study, we examined if reported childhood trauma is linked to corticostriatal dysfunction in BD patients. Furthermore, associations among childhood trauma experience and cognitive function were examined in BD patients.

Method: Thirty-eight BD participants who met the DSM-IV diagnostic criteria were enrolled. The experience of childhood trauma was obtained through the Childhood Trauma Questionnaire (CTQ). Participants were also required to complete the Wisconsin Card-Sorting Test (WCST). Resting state functional magnetic resonance imaging (rsfMRI) was collected from all participants in a 3T scanner. Seed to whole-brain functional connectivities (FCs) analyses were performed with seed regions placed in bilateral caudate and childhood trauma were entered as a regressors of interest when controlling for age.

Results: Results showed that the level of physical neglect was negatively correlated with left-caudate-seeded FCs to frontal parietal networks including right supramarginal gyrus, left inferior parietal lobule, right middle frontal gyrus, and right superior parietal lobule. The level of physical neglect was negatively correlated with performance on the WCST. The left-caudate-seeded FCs to frontal parietal networks mentioned earlier were positively correlated with performance on the WCST.

Conclusion: Unequivocally, the specific impact of physical neglect on brain connectivity and executive function in the BD population merits further investigation

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Developmental Changes of Autistic Symptoms, ADHD Symptoms, and Attention Performance in Individuals with Autism Spectrum Disorder (ASD)

自閉症患者之自閉症狀、注意力不足過動症狀與注意力功能之發展變化

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Background: Attentional deficits are frequently found in children with autism spectrum disorder (ASD). Little is known about the developmental changes of attentional deficits in children with ASD as compared to typically developing controls (TDC).

Methods: We prospectively followed up 154 youths with ASD and 106 TDC with the same repeated assessments. The mean ages at baseline and follow-up were 10.51 ± 3.21 and 17.39 ± 3.49 in the ASD group and 11.09 ± 3.04 and 16.48 ± 3.49 in the TD group. The assessments included mother-rated ADHD symptoms (using Swanson, Nolan & Pelham, edition IV, SNAP-IV), and autistic symptoms (using Social Responsiveness Scale, SRS), and Conners' Continuous Performance Test (CCPT) completed by all the participants. Because repeated measures within the same participants and some participants from the same family, we used the SAS Mixed model for group comparisons and changes of symptoms and CCPT performances.

Results: There were significant improvements in ADHD symptoms in both groups, and social communication and unique mannerism in the ASD group from baseline to the follow-up (all $p < 0.05$). The TDC group showed no change in SRS with time. Both groups had significant improvements in all CCPT indexes except Hit reaction time (RT) changed by block. The ASD group performed worse than TDC in CCPT including omissions, RT standard errors, and perseverations at baseline; and commission errors, variability, and detectability at follow-up. Regarding the slope of improvement, the ASD group had significantly greater magnitude of improvement in RT, responsive style, and perseveration than TDC while TDC had significantly more substantial improvements in commissions and detectability than ASD.

Conclusion: Despite significant improvement in clinical symptoms and attention performance with time, individuals with ASD still suffer from more severe ADHD and autistic symptoms and impaired focused attention and cognitive flexibility than TDC at follow-up.

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The background features a light gray gradient with scattered white sparkles and a trail of small white dots. In the top right and bottom left corners, there are detailed illustrations of cherry blossom branches with white flowers and green leaves. The text '壁報展示' is centered in a bold, black, sans-serif font, framed by two horizontal dashed lines.

壁報展示



Different White Matter Microstructure Property between Adults with Autism Spectrum Disorder and those with Schizophrenia

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Objective: The symptoms of autistic spectrum disorder (ASD) were highly correlated with the negative symptoms in schizophrenia. The arcuate fasciculus (AF), uncinate fasciculus (UF), superior longitudinal fasciculus (SLF), inferior fronto-occipital fasciculus (IFOF) are reported to be the neural correlates for language and social cognition. This work tested whether ASD and schizophrenia shared similar alterations in AF, UF, SLF and IFOF.

Method: The three comparison groups included 75 adults with ASD (mean age: 21.97 years), 71 adults with schizophrenia (22.54 years), and 86 healthy controls (21.97 years). They were recruited to undergo diffusion spectrum magnetic resonance imaging at 3T. The gender was not statistically different in three groups. After reconstructing whole-brain tractography by the tract-based automatic analysis (TBAA), we computed generalized fractional anisotropy (GFA) to present tract integrity. To reduce the confounding effect from age, we transferred GFA to Z score (zGFA) from normative and used one-way ANOVA with Benjamini–Hochberg corrections ($p < 0.05$).

Results: Post-hoc analysis indicated that patients with ASD had smaller zGFA than schizophrenia and controls in the left frontal aslant tract (L_FAT) and the left thalamic radiation of auditory, and patients with schizophrenia had smaller zGFA than ASD and controls in bilateral fornix and left SLF II. There were no significant differences between ASD and schizophrenia in the zGFA in the AF, UF and IFOF.

Conclusion: The altered white matter tracts related to social communication were similar in ASD and schizophrenia except SLF II. The different properties of white matter tracts between these two disorders need further exploration.

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Alterations of Grey Matter Volume of Higher-Order Restricted and Repetitive Behavior in Autism Spectrum Disorder

高階重複侷限行為於自閉症患者之灰質變化分析

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譚冠潔¹ 高淑芬^{1,2}

Objectives: Restricted and repetitive behaviors (RRBs) have been identified as a hallmark symptom in autism spectrum disorder (ASD). These distinct behaviors have been conceptually classified as lower-order (repetitive sensory-motor behaviors, RSMB) and higher-order behaviors (insistence on sameness, IS). Previous studies suggested that higher-order RRBs may be a more specific characteristic in ASD and a promising grouping variable as it may be an independent dimension. Associated neurobiological and cognitive mechanisms of RRBs were reported but mostly without the consideration of different types of RRBs.

Methods: We recruited 140 youths with ASD and 124 typically developing (TD) controls. Youths with ASD were stratified into two groups-higher score of insistence on sameness (HIS) and lower score of insistence on sameness (LIS) by IS items in ADI-R. T1-weighted image were acquired and analyzed using voxel-based morphometry (VBM) methods to identify differences in GM volume between three groups. The correlation analyses between the identified brain regions and cognitive flexibility assessed by intra/extra-dimensional shift(IED) task were performed.

Results: There were 94 subjects in HIS group and 46 subjects in LIS group. After controlled potential confounding variables, HIS group showed smaller GM volume in left superior supramarginal gyrus and left superior temporal pole and larger GM volume in left cerebellum 8 compared to LIS group. HIS group showed larger GM volume in right middle temporal gyrus and bilateral cerebellum 8 compared to TD. Left superior temporal pole and left cerebellar lobule 8 were negatively correlated with errors in ED shift ($r=-0.27$, $p<.001$; $r=-0.23$, $p=0.004$) in ASD group.

Conclusions: Our findings demonstrated altered GM volume in left supramarginal gyrus, left superior temporal pole, right middle temporal gyrus and posterior regions of cerebellum in individuals with ASD with severer IS, implying higher-order RRB may be a unique feature from RRBs domain.

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Neonatal Dexamethasone treatment altered the expression of hippocampal G-protein coupled estrogen in male rats

新生期投予地塞米松對於公鼠海馬迴中 雌激素受體表現的影響

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Yi-Ling Yang², Kwok-Tung Lu¹*

仇鵬愷^{1*} 羅子雅¹ 董佑萱¹ 林維星¹ 楊奕玲² 呂國棟¹

Objective: Dexamethasone is a synthetic glucocorticoid and widely used as an anti-inflammation agent for decades. It also administrated neonatally for preventing chronic lung disease in premature born infants. Accumulated results showed neonatal dexamethasone treatment (NDT) has a long-term deleterious effect on the emotional and cognitive function. Our previous results demonstrated the hippocampal estrogen receptors including the alpha type estrogen receptor and G-protein estrogen receptor (GPER) are responsible for its long-term adverse effect on the female NDT rats. Here, we tested whether the GPER also participates in the NDT effects on male rats.

Methods: Newborn Wistar male rats were subject to subcutaneous tapering-dose injections of DEX (0.5, 0.3 and 0.1 mg/kg) from postnatal day-1 to day-3 respectively. Animals were then subjected to a forced swimming test (FST), in vitro extracellular recording of the hippocampal high-frequency stimulation-induced long-term potentiation (HFS-LTP), or real-time PCR for evaluating the hippocampal (GPER) expression. at the age of six weeks old.

Results: Results showed an impairment of the somatic growth in the NDT treated animals which proven a successful drug administration. The FST results revealed that after acute stress evoking, the percentage of immobility time was significantly increased in the NDT group. Furthermore, NDT significantly attenuated HFS-LTP intensity and the expression of hippocampal GPER.

Conclusions: In conclusion, our results suggest that hippocampal GPER might play an important role in the adverse effect of NDT. Further experiments will be required to obtain a fuller understanding of its functional role.

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Juvenile immobilization treatment has long-term adverse effect on the hippocampal function

探討青少年期捆綁處理對海馬迴功能之長期不良影響

Yu-Hsuen Tung^{1}, Wei-Hsing Lin¹, Tsz-Nga Lo¹, Yi-Ling Yang², Kwok-Tung Lu¹*

董佑萱^{1*}、林維星¹、羅子雅¹、楊奕玲²、呂國棟¹

Objective: Traumatic events during adolescence such as sexual molest, bullying in the school, psychological or physiological abuse by the family members are confirmed to have a long-term deleterious effect on mental health. Which might increase the risk of having psychiatry disease in adulthood. Unfortunately, limited therapeutic strategies are available for preventing those adverse consequences.

Method: Here, a modified juvenile immobilization treatment (J_IMO) animal model was applied for studying the adverse effect of J_IMO on the hippocampal function. Briefly, C57BL/6J mice received J_IMO treatment at the age of 5-weeks old. They were then subjected to the inhibitory avoidance test (IA), or in vitro extracellular recording of the high-frequency stimulation induced hippocampal long-term potentiation (HFS-LTP) at the age of 6-weeks old.

Results: Results showed an increase of avoidance learning in the J_IMO treated mice. In addition, the learnt avoidance response was lessened after three days of extinction training. The extinguished fear response was spontaneously recovered one week later. The hippocampal HFS-LTP was also increased in the J_IMO animals which could explain the enhanced avoidance learning. Neither input-output curves nor pair-pulse facilitation showed significant difference among control and J_IMO treated mice. Which implied the enhanced hippocampal HFS-LTP may result from a postsynaptic mechanism such as increased receptor expression and elevated signal transduction.

Conclusions: We found a long-term adverse effect of J_IMO on the hippocampal function which showed consistency with the previous finding. Further experiments are required to elucidate the detail mechanism.

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Adolescent-Parent Agreement on the Levels of Callous-Unemotional Traits in Adolescents with Attention-Deficit/Hyperactivity Disorder (ADHD)

ADHD 青少年與其家長對於 ADHD 青少年冷酷無情特質之評估一致性

Yu-Min Chen^{1}, Cheng-Fang Yen^{1,2}*

陳鈺閔^{1*} 顏正芳^{1,2}

Objective: To examine the levels of agreement between the reports of 207 adolescents and their parents on adolescents' callous-unemotional (CU) traits and investigate the factors influencing the levels of agreement in adolescents with attention-deficit/hyperactivity disorder (ADHD).

Method: Adolescents and their parents completed the Chinese Version of the Inventory of Callous and Unemotional Traits (C-ICUT) to assess adolescents' levels of three dimensions of CU traits (callousness, uncaring, and unemotional). The levels of agreement between the reports of adolescents and their parents were examined by using two-way random effect model, consistency, intraclass correlation (ICC) for average measures. The influence of age, sex, ADHD symptoms, and psychiatric comorbidities on the levels of agreement was also examined.

Results: Adolescent-parent agreement on callousness and unemotional were poor (ICC = .312 and .178, respectively), but moderate on uncaring (ICC = .460). The agreement was lower in ADHD adolescents without conduct disorder (CD) than in ADHD children with CD on callousness traits. For unemotional traits, adolescent-parent agreement was lower in ADHD children who had higher oppositional defiant disorder (ODD) symptoms. Finally, in terms of uncaring traits, when adolescents who were girls, comorbid with CD, or whose parent had higher age were observed lower adolescent-parent agreement.

Conclusion: Adolescent-parent agreement on callousness and unemotional were poor but moderate on uncaring. Adolescents' CD, ODD symptoms and sex and parents' age influenced the level of agreement.

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Anxiolytics and Hypnotics/Sedatives Prescription Trend among Children and Adolescents with Mental Disorders

兒童青少年精神疾病患者抗焦慮劑與鎮靜安眠藥物處方趨勢探討

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鄭淑文^{1*} 陳質采²

Objective: The prevalence of anxiolytics and hypnotics/sedatives prescription for children and adolescents patients with mental disorders is increasing over the world. Few studies exist to focus on the prescription trend and pattern of anxiolytics and hypnotics/sedatives use for children and adolescents patients in psychiatric hospitals of Taiwan.

Methods: In this retrospective study for all outpatients equal or below 18 years of age in a psychiatric hospital, we collected related study variables from the study hospital from 2006 to 2015. Reviewing the electronic medical information system, we extracted both patients' demographic data such as sex, age, psychiatric diagnosis, and prescriptions of anxiolytics and hypnotics/sedatives.

Results: During the study period, the proportion of participants received anxiolytics and hypnotics/sedatives decreased significantly (from 9.16% in 2006, to 5.85% in 2015, $p < 0.001$). The proportion of participants received anxiolytics was decreased (from 5.34% in 2006, to 4.54% in 2015, $p > 0.05$), while hypnotics/sedatives decreased significantly (from 5.35% to 2.27%, $p < 0.001$). Logistic regression analysis showed that anxiolytics and hypnotics/sedatives used was significantly associated with age, gender, and major psychiatric disorders.

Conclusions: It is important to recognize the function and monitor the use of anxiolytics and hypnotics/sedatives in the treatment of childhood and adolescent mental disorders. Certainly, we need more well designed clinical trials to investigate the safety and efficacy of anxiolytics and hypnotics/sedatives medications in children and adolescents. It is also necessary to study how and why these medications are being prescribed, through the application of pharmacoepidemiology.

Key words: children and adolescents, anxiolytics, hypnotics/sedatives, prescription trend

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極低出生體重早產兒於兩歲前之發展軌跡

Trajectories of development in Very-Low-Birth-Weight Preterm Infants during the Second Year of Life

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目的：極低出生體重早產兒（出生體重 <1500 公克）為發展遲緩的高危險群，國內外研究皆指出早產兒於動作、語言或認知能力即有可能會出現缺損，要早期評估與介入，且過去研究亦指出較輕微的缺損時常隨著早產兒的成長而更加明顯。由於過去探討早產兒於認知、語言、動作領域發展之文獻，多為單一時間點的評估並以群體平均表現作為分析方式，較少有研究針對早產兒之各領域發展變化作進一步的討論，台灣近年也僅有少數研究針對早產兒於各領域發展軌跡進行探討。因此，本研究之目的欲探究極低出生體重早產兒於兩歲前之認知、語言以及動作領域發展軌跡，及其影響因子與日後發展之關聯。

方法：本研究採回溯性研究（以 2015.01.01-2019.12.31）為區間，於矯齡六個月、矯齡一歲以及兩歲進行例行性追蹤之極低出生體重早產兒，蒐集其生理症狀、家庭背景資料，以及透過貝萊嬰幼兒發展測驗第二版／第三版（BSID-II / BSID-III）施測所得之三個時間點的認知、語言、動作組合分數，進行分析。

結果：極低出生體重早產兒於各領域能力表現呈現不同發展軌跡，發展軌跡主要可分為持續正常、逐漸變差，以及持續遲緩。逐漸變差軌跡與個案生理疾病、出生體重具顯著相關性；此外，個案逐漸變差軌跡可預測個案兩歲年齡之認知、動作、語言發展遲緩。

結論：極低出生體重早產兒於兩歲前之各領域發展呈現多個發展軌跡，且主要和個案生理症狀、體重有關，且其發展軌跡可預測兩歲之認知、語言以及動作發展變化，上述狀況可提供針對早產兒認知、語言、動作發展遲緩以及早期介入之參考。

關鍵字：早產兒、發展軌跡、危險因子

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Prognostic prediction value of assessment result by 2 years old to 5 years' old development in Very-Low-Birth-Weight Preterm Infants 極低出生體重早產兒兩歲追蹤結果對於 五歲發展預後之預測

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Abstract: Extreme low birth weight preterm babies have relative high risk of developmental delay. The degree of associated factors lead of different developmental outcome. Cerebral palsy and mental retardation are common handicap, which have a prevalence rate up to 13-15%. The early delay means double handicap for individual and whole family.

Method: In this study, we conduct retrospective cohort type of research, and data were between year 2015.01.01-2019.12.31. There are totally 5000 candidates were included in our study and developmental assessment by 2nd and 5th years of corrected age were compared. Demographic data and related common risk factors (RDS, PVL, HIE, IVH, ROP, Sepsis etc.) were collected for further study.

Results: Three directions were analyzed, 1). Type of developmental delays are different in distribution, e.g. motor and verbal delay more in prevalence. 2). The incidence of developmental delay was higher in severe risk group (more severe in risk factor, e.g. IVH grade 3-4, PVL and/or severe HIE) , 3). Prognostic value shows more significant in cognitive outcome.

Discussion: We think, 1). Prognostic prediction value is there, corrected age of assessment, experience of assessment and status of babies were possible factors, which affect the significance, 2). Improvement of neonatal care to decrease neurological morbidities are still urgent, 3). Difference in developmental domain alone child' s age guide us difference in parental guidance. Further study is needed for more concrete child developmental counselling and professional learning.

關鍵字：Very-Low-Birth-Weight, Preterm Infants, follow up, risk factors

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臺灣社區精神復健—— 花蓮玉里復健模式與會所模式的比較

Community mental rehabilitation in Taiwan: a comparison of rehabilitation model in Hualien Yuli and clubhouse pattern

Wan-Chia Chung

鍾宛家^{1*}

壁報展示

目的：(一)什麼是玉里精神復健模式？怎麼形成的？(二)什麼是會所模式，怎麼形成的？(三)玉里精神復健模式與會所模式的相異、相同處為何？

方法：文獻回顧海報論文(國立彰化師範大學圖書館、華藝線上圖書館、台灣碩博士論文知識加值系統、國家圖書館)

結果：

	玉里模式	會所模式
社區化	將患者依階段性的程序，當症狀穩定後，漸漸與社區接軌，較不容易產生難以適應的情況，而社區居民方面，接納度高，與患者一同工作的意願性也大。	偏向已穩定症狀的患者進入此模式中，且期待他們能夠獨立生活自理，比較難看到除工作職場外與其他社區互動的部分。
與醫療模式的差異	期待患者重回社區，若到年老或不再具有復健的必要性時，才回歸到照顧的部分。	看待患者不是以病症而是以身為人的角色去對待，並將會所營造出一種家的感覺，讓患者不會害怕說萬一我踏出這個舒適圈，再也不會得到協助的感受。
症狀復發	回到原有的醫療體系中，重新建構一次。	文獻中並沒有探討到若症狀復發會如何處遇，可能也是先以醫療介入為主。
職業取向	學習新技能或原有技能，或以興趣為主，與社區居民、醫院體系共同合作。	在類別中分項仔細(獨立、支持、過渡、教育等)，會所的導向偏重個人獨立生活，所以在就業的部份會視階段性的需求給予適當的支持。
家庭支持	從文獻中可以發現兩者在家庭支持方面都不是太高，幾乎不怎麼著墨在與家庭的關係，而玉里模式則提到說許多患者的家庭是已經沒有其他的辦法才送到那裡，是最壞的打算，不論是照顧哪一種類型的障礙者，家庭支持上普遍不高。	

結論：社會大眾的接納度低以及過往的污名化，已造成民眾的認同感低落以及對患者已存在既定的刻板印象，唯有提升社會整體的接納與包容度，才得以讓那些污名或是衍生出的問題減少，主要是需要政策面的推廣並鼓勵障礙者走出醫院、機構，同時大眾也能將他們視同常人那樣的接觸，而不僅憑著媒體的片面報導而不願對他們更多地瞭解。

國立彰化師範大學復健諮商所

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個案報告：神經心理治療於自閉症介入療效之探討

Case report: Effectiveness of Neuropsychotherapy for Autism Spectrum Disorder

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目的：自閉症為神經發展疾患，其核心症狀與大腦心智功能缺損相關。神經心理治療係以神經科學知識為基礎所設計的治療策略。本案例欲探討神經心理治療於自閉症學齡前兒童之介入成效。

個案報告：個案為 5 歲男童，認知、語言發展遲緩合併自閉類群障礙症。108 年 6 月以兒童發展篩檢量表評估（生理年齡 55 個月），語言溝通頂峰水準（ceiling level）為 16 個月、社會人格為 40 個月、知覺認知為 14 個月。語言理解困難，表達多為無意義發聲，衝動性高，具固著興趣（各式開關），視知覺自我刺激行為。眼神接觸少，缺乏共享式注意力表現，人際興趣低，多為功能性互動。家長填答之適應行為評量（ABAS-II），一般適應組合分數為 65（百分等級 1），整體適應功能低下。前述認知與社會情緒功能障礙對其日常生活適應與家長照護成效造成負面影響。臨床心理師立基於個案神經心理功能現況擬訂神經心理治療計畫，目標為增進個案共享式注意力、日常生活適應功能及親職照護效能，共計 26 次（30 分鐘/次）。首先，以環境調整策略降低衝動與自我刺激行為的發生頻率，並運用感官性活動、社會性回饋促進共享式注意力發展、人際互動品質與參與動機。其次，搭配非語文訊息之應用，引導個案注意環境訊息，並提升指令理解與配合度，以增進整體日常適應功能。同時提供心理衛教，提升家長對個案神經功能發展特質與現況的理解，演練並穩固返家自主教養策略。介入後，家長與其他治療師質性回饋資料顯示，個案情緒與行為穩定度增加，人際互動頻率與品質提升。家長的親職效能提升。

討論：本報告顯示以神經心理治療進行自閉症兒童介入，於改善自閉症核心症狀具初步成效，未來將持續介入與追蹤療效。

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注意力缺陷／過動症孩童參與寫字訓練團體之成效探討

The effectiveness of handwriting skill training group for the children of ADHD

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蔡欣芸^{1*} 王雅甄² 許維堅²

目的：探討寫字訓練團體對改善 ADHD 孩童寫字表現與親職壓力之成效。

方法：7 至 9 歲 ADHD 孩童共 6 名（1 女 5 男），使用視覺 - 動作統整發展測驗（VMI）、兒童寫字表現評量表（CHEF）、親職壓力量表（PSI）及臨床觀察來評估。職能治療師提供每週一次一小時之孩童團體及家長衛教團體，共 21 次。

結果：各評估前後測百分位數結果顯示，VMI 的視覺 - 動作統整分測驗進步 3 位，退步 3 位；視知覺分測驗進步 3 位，退步 3 位；動作協調分測驗進步 5 位，退步 1 位。CHEF 全量表進步 4 位，退步 2 位。PSI 全量表進步 5 位，退步 1 位。臨床觀察顯示，孩童之寫字表現向度皆有明顯改善，孩童及家長亦感受到書寫表現改善及寫字引發之情緒行為減少。

結論：ADHD 孩童參與寫字訓練團體後，VMI、CHEF、PSI 的結果部分改善；孩童及家長主觀感受到書寫表現與情緒行為皆有明顯進步。

關鍵字：ADHD、handwriting skill、parenting stress

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質性訪談案例報告：父母的被教養經驗與 依附關係與目前的教養行為與模式之關聯

Attachment and being raised experience influence on the current parenting style. A Case Report

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陳姝蓉^{1*} 李冠瑩²

目的：以共識質性分析為研究典範，採用深度訪談、親子互動錄影、自填量表收集資料，由下而上從現象中擷取核心意義。探究父母自身的被教養經驗與依附關係如何影響目前親職的態度與信念。

個案報告：此對父子是因孩子的不專注與管教問題就診，父回憶父親教養類型為權威控制型；母親為放任養育型。對子而言，父親則是情感束縛型。分析其內在運作模式，父容易感受到被拒絕，及不被認同的角色，常用順從與表達委婉因應。面對孩子行為問題的設限與情緒表達上常複製了過往的經驗，即便內在一直希望改變過往威嚴父親的形象。

討論：此訪談雖非設定在介入親子互動，然而，透過研究反饋，父發現自己對父親的認同程度及嚴肅的本質，促進對自己親職的理解。對於臨床建議為青少年父母工作需培養家庭為一個系統的眼光，運用內在運作模式進行親子關係評估，將代間教養之傳遞與改變的正向力量連結，促進親代的自我覺察。

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即興音樂治療對於增進自閉症類群障礙症兒童 效果之探究

The Effects of Improvisational Music Therapy in Improving Communication of Children with Autism Spectrum Disorder

Tzu-Lin Huang

黃子玲

壁報
展
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Background: Autism do not reality engage in positive affect exchanges with others in social situations and difficulties in the communication on the children with autism. The current study investigated the effects of improvisational music therapy on positive communication, emotional expression and responsiveness during engagement episodes in children with autism.

Methods: This is a case study. Children aged between 3~7 and not previously treated with music therapy. Each child had improvisational music therapy sessions on weekly twice sessions weekly, 30 minutes per session for 8 consecutive weeks in each condition. Results Improvisational music therapy produced events of 'attentions', 'creasing verbal' 'emotional synchronicity' and 'initiation of engagement' in in the children.

Conclusions: This is based on individual cases in the communication and social interaction and other issues, aimed at improvisation through sparse emotions, musical instruments to help communicate the expression and Body rhythms with the exchange of these four ways to improve case communication and communication skills.

Action / Impact: Taiwan's music therapy environment has not yet been widely used and to be attentioned. It is expected in this study can find suitable for Taiwan's autistic children's guidance model, and thus improve communication barriers in children.

Abstract Summary: Autism do not reality engage in positive affect exchanges with others in social situations and difficulties in the communication on the children with autism. The current study investigated the effects of improvisational music therapy on positive communication, emotional expression and responsiveness during engagement episodes in children with autism. This is a case study. Children aged between 3 ~ 7 and not previously treated with music therapy. Each child had improvisational music therapy sessions on weekly twice sessions weekly, 30 minutes per session for 8 consecutive weeks in each condition. Improvisational music therapy produced events of 'attentions', 'creasing verbal' 'emotional synchronicity' and 'initiation of engagement' in in the children. This is based on individual cases in the communication and social interaction and other issues, aimed at improvisation through sparse emotions, musical instruments to help communicate the expression and Body rhythms with the exchange of these four ways to improve case communication and communication skills. Taiwan's music therapy environment has not yet been widely used and to be attentioned. It is expected in this study can find suitable for Taiwan's autistic children's guidance model, and thus improve communication barriers in children.

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A Follow-up Study of Peer Relationships in Youths with and without Autism Spectrum Disorder: A Mediation Analysis of Autistic and Other Emotional and Behavioral Symptoms

自閉症類群疾患同儕關係之追蹤研究： 自閉症症狀與情緒行為症狀之中介分析

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Objective: Different levels of emotional and behavioral problems are commonly seen in individuals with ASD. With age, they may encounter difficulties in the interactions with peers. There is limited information about whether autistic features and emotional and behavioral problems can mediate the outcome of peer relationships. This study investigated the mediation effects of autistic symptoms, emotional and behavioral problems on the link from ASD to peer relationships at follow-up.

Methods: A total of 366 ASD youths and 134 typically developing controls (TDC) were assessed. The autistic trait and emotional and behavioral problems was measured at baseline by the Social Responsiveness Scale (SRS) and the Child Behavior Checklist (CBCL), separately. The peer interactions and problems with peers were assessed by the Social Adjustment Inventory for Children and Adolescents (SAICA) at follow-up. Multiple mediation models were used.

Results: Youths with ASD had more emotional and behavioral problems in CBCL. At follow-up, they had more severe peer problems and less active peer interactions. Simple mediation analyses showed that each subscore of SRS and CBCL had significant mediation effects. Multiple mediation analyses showed that impaired social communication, social awareness, and delinquent behaviors mediated the link from ASD to peer interactions after controlling for sex, age, and full-scale IQ. Moreover, social communication impairment, social emotional difficulty, and attention problems predict peer problems. After considering the mediation effects, ASD still significantly predicted impairment in interactions and problems with peers.

Conclusions: ASD youths suffer from more emotional and behavioral problems and impaired peer relationships. The links between ASD and impaired peer relationships can be mediated by social communication and emotion impairments, as well as attention problems and delinquent behaviors. Future exploration of potential mediators for the link between ASD and impaired peer relationships is warranted.

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家庭動力及災難性社會事件形塑創傷後壓力症患者 復原歷程之探索：個案報告

Exploring the Association of Family Dynamic, Social Events and the Recovery Process of a Child with Posttraumatic Stress Disorder: A Case Report

Yen-Chin Wang¹, Yen-Nan Chiu^{1,2}

王彥欽¹ 丘彥南^{1,2}

壁報
展示

目的：探索一名創傷後壓力症患者之家庭動力及災難性社會事件因素與心理治療復原歷程之關聯。

個案報告：此十一歲男性兒童因教師管教事件而長期有創傷記憶再現、嚴重焦慮、激躁舉動與幻覺等症狀，經一年半之密集心理治療，其困擾之精神症狀顯著地逐漸改善，但仍易受相似情境引發焦慮而困難轉移。治療師觀察家庭內有親子共依存關係，親子間對相似情境之情緒反應會交互影響；在災難性疫病流行之社會事件下，雙方之分離焦慮更增強表現。治療師增加與照顧者的會談，並討論對疫病傳播之準備以增進壓力因應技巧。

討論：創傷後壓力症患者之復原歷程會受家庭動力與外在環境因素影響，故於個別治療外，與患童家人工作乃為治療中所不可或缺者，並需注意相關重大社會事件之作用，儘可能將環境不利事件轉化為增進因應技巧之正面經驗。

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Childhood Suicidal Behaviors: Effects of Sex, Age, Affective Symptoms, Urbanization, Family Incomes, Family Functions, and Parenting

兒童自殺之相關因子探討

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劉子瑜^{1*} 高淑芬¹

Objective: Suicide is an important public health issue across the lifespan but relatively less known in school-age children. This study aims to examine individual, familial, and environmental correlates for suicidal behaviors in an epidemiological child population.

Methods: The national survey enrolled a national representative sample of 4816 children (grade 3, 5, and 7 students; ages of 9-14) from 69 schools in Taiwan. Suicidal ideations, plans, and attempts were assessed by semi-structured interviews using the Mandarin version of the Schedule for Affective Disorders and Schizophrenia -Epidemiological version for School-Age Children for DSM-5. Data about community incomes was retrieved from government data. Family function and parenting style were examined by using the Chinese version of Family Adaptation, Partnership, Growth, Affection, and Resolve questionnaire and Parental Bonding Instrument, respectively. Irritability and depression/anxiety were assessed by Youth Self-Report of Affective Reactivity Index and Child Behavior Checklist, respectively. Univariate and multiple logistic regression analyses were used.

Results: There were 377 (7.8%), 153 (3.2%), and 43 (0.9%) children ever had suicidal ideations, plans, and attempts, respectively. These suicidal behaviors were positively associated with age and anxiety/depression, and negatively associated with family support in multiple logistic regression analysis. Besides, suicidal ideation was positively associated with irritability, and a suicidal attempt was associated with female sex. Urbanization, community income, and parenting style had no significant correlations with suicide in this study.

Conclusions: Our results demonstrate that older age, low perceived family support, irritability, anxiety/depression were associated with suicidal behaviors in children. The development of suicide prevention plans for children should consider these measures.

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一位經歷過創傷事件並罹患選擇性緘默症及 注意力不足過動症的男孩之啟示：一案例報告

The Enlightenment through a Boy with Traumatic Experience who Suffered from Selective Mutism and ADHD: A Case Report

Tzu-Yu Liu, Susan Shur-Fen Gau*

劉子瑜* 高淑芬

壁
報
展
示

目的：兒童常會因無法適應學校生活而被建議就醫，在評估、診斷、治療的過程中往往會發現病人的狀況比原先所想的更加複雜，診斷及治療也須隨時調整。本文報告一例診療選擇性緘默症及注意力不足過動症且經歷過創傷事件的男孩之經驗。

個案報告：個案 8 歲，曾遭父親家暴，父母正進行離婚訟訴，目前與母親同住。母親表示過去照顧個案時未發覺有特殊之處，然幼兒園老師曾提及其專注力不佳，入小學後，老師表示其表現脫序，在校脫鞋、上課離座、躲在桌下、無法配合活動、幾乎不講話，母親因此帶個案就診。在給予 methylphenidate 治療後，過動症狀稍有改善，但焦慮、緘默、難以配合的狀況依舊，隨著持續追蹤，發覺個案的困擾不只是 ADHD，還有更多的情況需納入考量。

討論：幼年時的創傷經驗、與父母的依附關係、焦慮及過動症狀等互相影響，造成個案難以適應小學生活，除了藥物治療外，教養方式的調整及學校特教的介入亦是必須。本個案報告呈現此案例之評估與治療過程，並探討相關文獻。

School Function and Comorbid Psychiatric Conditions as Mediators to Predict Cyberbullying Involvement in Youth with Autistic Traits in a Nationally Representative Sample

學校功能缺損與共病之精神疾患作為預測具自閉症特質之兒童青少年參與網路霸凌之中介因子

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Objective: Cyberbullying has become an international concern among youths with autistic traits due to its potentially severe consequences. However, there is limited knowledge about the mediators for this association. We aimed to investigate whether school function, comorbid psychopathologies, such as anxiety/depression, inattention, hyperactivity/impulsivity, and oppositional behaviors, mediated the link between autistic traits and cyberbullying involvement.

Methods: A nationally representative sample of 9486 students (aged 9-14 years) from 69 schools in Taiwan were recruited. They or their parents reported their autistic traits (Social Responsiveness Scale), cyberbullying involvement (Cyberbullying Experiences Questionnaire), school function (Social Adjustment Inventory for Children and Adolescents), anxiety/depression (Child Behavior Checklist), and ADHD-related symptoms including inattention, hyperactivity-impulsivity, and oppositional defiance (SNAP-IV). The sample was divided into two groups, respectively, according to the status of cyberbullying victimization and perpetration. Multiple mediation models were used to examine the mediating effects of comorbid psychopathologies and school functions on cyberbullying victimization and perpetration.

Results: Cyberbullying victimization and perpetration were positively associated with autistic symptoms, parent-reported school dysfunction, and comorbid psychiatric conditions. We found specific mediating effects of hyperactivity/impulsivity and parent-reported school dysfunction on both cyberbullying victimization and perpetration, independent of age and sex.

Conclusions: Our results support a significant association between autistic traits and cyberbullying victimization and perpetration, as well as provide evidence showing some psychopathology such as hyperactivity/impulsivity and school dysfunction mediating such associations. Early identification and intervention of these difficulties may offset the risks of cyberbullying. Our findings need to be replicated in a longitudinal study.

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轉化症兒童合併拒學問題之治療歷程

Treatment of Conversion disorder with School Refusal: A Case Report

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林海笛¹ 蔡文哲¹

目的：轉化症在兒童期診斷不易，並常共病焦慮與情緒疾患，導致學業功能受損。治療過程中，需注意鑑別診斷、考慮共病的精神症狀。本例報告一位轉化症合併拒學之女童的治療經驗。

個案報告：7歲女童為台日混血之雙胞胎，具癲癇病史，藥物控制下已多年未發作，病前成績中上。比較台日環境，小二起常提到不喜歡台灣的學校，並抱怨胸痛、膝蓋痛，接著出現肢體不自主運動與下肢無力，症狀多發作於睡前及上學途中，個案常因身體不適請假或至保健室休息，入住神經科病房接受多項神經生理檢查均未發現異常，照會兒童心智科醫師後接受心理治療。治療中探索個案之心理及家庭動力，試圖連結個案之情緒與轉化症狀，在建立病識感後討論情緒調節之策略。另與父母衛教身心交互影響的致病機轉，討論讓雙胞胎各自發展之教養技巧。接受治療後，轉化症發作減少，出席率及作業完成度也顯著改善。

討論：個案原有癲癇病史，鑑別診斷需區分癲癇與轉化症各自的症狀與治療計劃。個案自幼與雙胞胎妹妹競爭，自我要求高，面對台灣學習環境相對嚴格及與妹妹同班比較的壓力，難以言語表達故呈現轉化症狀。對兒童的心理治療以遊戲為主，建立治療性關係後個案較能以言語表達情緒，未來將持續引導個案探索身體化症狀、病人角色與家庭關係等議題。

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憂鬱合併拒學青少年的治療經驗：案例報告

Treatment of Female Adolescent with Depressive Disorder And School Refusal: A Case Report

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林忠毅¹ 商志雍^{1,2}

目的：功能不良家庭、學校霸凌皆是憂鬱、拒學之危險因子。本研究討論一位父親外遇、國小遭霸凌病人出現憂鬱合併拒學症狀之治療歷程。

個案報告：個案為16歲青少年，高中一年級，為家中的長女；案父在個案年幼時有嗜賭、外遇等行為，案母對個案期待高，除課業要求外，亦與個案商量教養案弟之方式；個案於國小遭遇言語霸凌，父母皆無法給予合適情緒支持。個案九年級時，因課業、同儕、家庭種種壓力出現憂鬱情緒，始於本院門診就診，勉強考上高中，但入學後仍有憂鬱情緒、拒學、自傷自殺行為，於本院接受藥物與心理治療協助。

討論：青少年憂鬱較有證據的治療為認知行為治療、人際心理治療、家族治療、藥物治療等；此個案因面臨多重壓力以及高自殺風險，使用藥物治療、個別心理治療、間斷的家族治療協助，心理治療並引入認知行為治療和人際心理治療的技巧協助個案。

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選擇性緘默症、社交焦慮症及社交溝通障礙症之 鑑別診斷及共病性探討

Case report : A 9-year-old girl with selective mutism Differential Diagnosis and Comorbidities of Selective Mutism, Social Anxiety Disorder and Social Communication Disorder

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目的：過去文獻指出選緘個案和自閉症光譜疾患、焦慮相關疾患有共病的可能性，針對不同共病性的個案，有不同的治療策略。本文報告：鑑別一位選擇性緘默症個案之可能共病性及相對應治療方向的決策。

個案報告：個案自幼被觀察到無法在幼兒園中說話，多獨自一人玩耍，不喜與同儕互動，與師長多以肢體語言表達需要，勉可用氣音或小聲說話的方式互動。當時接受早療評估，結果懷疑選擇性緘默症。媽媽在家中詢問不願意在學校說話的原因，個案多表示為就是不想說話、或不知道要說什麼。上小學後，個案只願與老師互動（可以在老師耳邊問問題），不會主動找同學。焦慮度高，上學前會反覆確認東西帶齊了沒有、考試考差了怎麼辦、老師會不會很兇；仍不喜與同學互動，曾詢問母親為什麼需要交朋友；學習上沒有落後，擅長電腦，寫作文有困難，碰到不會的題目容易放棄，需要一再鼓勵，才可以完成。三年級後，人際互動上開始遇到困難，分組課程都在邊緣發呆，會被同學嘲笑或被不熟的師長誤會，個案因此有低落情緒、哭泣、失眠，開始向母親表示不想去上學。個案為足月產、生產過程和新生兒檢查皆無異狀，八個月大時因腦外積水接受過住院治療。其他發展里程碑並無異狀。個案在家中表現為活潑話多，喜與妹妹玩，家人之間相處良好。

討論：個案自幼無法在幼稚園、小學中說話，但可在家中說話，不說話的主因無法歸因於對社交場合所需使用語言缺乏了解，符合選擇性緘默症的診斷。利用詳細病史詢問、Clancy Scale 和自閉症學生評量觀察紀錄表，未發現侷限重複性的行為；觀察孩子的肢體語言、完成社會情境圖卡測驗，初步排除自閉症類群障礙症及社交溝通障礙症。個案在陌生環境會感到極度焦慮及明顯身體症狀；在需分組討論的課程，有焦慮、害怕自己表現不好，會拒絕加入團體，造成社交功能減損，符合社交焦慮症的診斷。後續治療針對緩解焦慮、問題解決、和社交技巧方面加強。個案最近可和同儕一起玩鬼抓人遊戲。對於選擇性緘默症和社交焦慮症共病的個案，利用認知行為治療較佳。

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Anti-NMDA Receptor Encephalitis Masked by Initial Catatonic Presentation and multiple psycho-social factors: A Case Report

因初期僵直表現及多重社會心理因素而延遲確診之抗 NMDA 受體腦炎：個案報告

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陳力源^{1*} 林達偉¹

Objective: This case report presents an adolescent patient who had definite sexual assault history, was transferred to psychiatric ward under initial presentation of stereotyped behavior, intermittent agitation and self-talking, then encountered rapid progression of rhabdomyolysis and consciousness change. For familial economic shortage, diagnosis of anti-NMDA receptor encephalitis could only be made by lab test after 20 days of ICU stay.

Case Report: This 14 y/o female, who denied any past medical history was admitted to neurological ward due to sudden-onset general jitter for around 30 minutes during class. Initial surveys including brain MRI, CSF study, and blood examination revealed no obvious abnormality, and self-talking, intermittent agitation, and stereotyped behavior (masturbation-like) developed after one day of hospitalization. For past and recent sexual assault history were also collected, she was transferred to psychiatric ward under the impression of acute catatonia or stress-related dissociation. High dose Lorazepam was given by oral and parenteral route (daily dosage 8~ 12mg). Short-term improvement of consciousness was noted for one day and her consciousness went worse rapidly again with progressing limbs rigidity. Rhabdomyolysis developed at day 10 and she was transferred to Pediatric Intensive Care Unit. She was intubated and received pulse therapy under the speculation of encephalitis. Due to economic difficulty of her family, Anti-NMDA receptor antibody sample could only be drawn at the day 10 and confirmed positive at the day 20. She left ICU after 20 days stay, her conscious improved much. She had residual symptoms including slowly response and forgetful while she could walk and talk smoothly now.

Discussion: In past psychiatric practice routine, brain image and CSF study were robust survey to rule out physical induced psychiatric symptoms or disorders. According to contemporary literature, catatonia could be treated by intravenous Lorazepam. However, in our experience, we suggest upgrading the priority of screening for antibodies to the NMDA receptor subunit in managing acute catatonia. Proactive social resource assistance should also be sought while encountering economic difficulty in performing necessary lab survey.

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兒童系統性紅斑性狼瘡以情緒症狀 作為神經精神症狀表現

Mood Symptoms As An Neuropsychiatric Features of Juvenile-Onset Systemic Lupus Erythematosus

Po-Wei Lee, Mei-Hung Chi

李博偉 紀美宏

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目的：目前研究認為兒童系統性紅斑性狼瘡（juvenile-onset systemic lupus erythematosus, 簡稱 JSLE）有較高的機會表現出神經精神症狀，特別是早期病程有合併癲癇發作的個案。其作用機轉目前認為跟自體抗體或是細胞素所造成的神經毒性有關。因此在治療 JSLE 時，最大的挑戰為當腦部影響（cerebral lupus）發生時，對於個案情緒以及精神症狀如何做出明確的診斷及治療。

個案報告：本次報告的個案為 18 歲女性。在 16 歲時，因為某次發燒與泌尿道感染，伴隨喘、心悸、全身無力、視力模糊等症狀，經住院檢查診斷為 JSLE。起初表現以典型症狀，包括疲倦、微燒、紅斑、肌肉酸痛、關節發炎、頭痛、嘔心等；隨著病程進展復發，開始出現癲癇發作（afebrile seizure），及疑似抗磷脂抗體症候群（antiphospholipid syndrome）。個案長期使用類固醇作為 JSLE 主要治療藥物。個案在治療後約三至六個月，開始因憂鬱症狀被轉介至兒童精神科。於追蹤過程中，個案出現陣發性躁症或輕躁症狀，如一段時間思考較為跳躍，易生氣暴怒，跟同學老師衝突頻率增加，睡眠需求減少，誇大式的思考內容模式等，以及交替出現之鬱期症狀，如自我否定、無助無望感、罪惡感等，伴隨頻繁的自殺意念，及藥物過量行為。而這些週期情緒症狀在持續一段時間過後會回復至平穩，個案亦可回歸其原本生活與學業功能。

討論：在時序上，這個個案躁症症狀前後往往伴隨著 JSLE 復發，包括典型症狀或是癲癇發作。由於每次的復發會伴隨類固醇劑量的提升，如何去排除類固醇造成的影響是治療中特別需要釐清的重點；我們規則運用情緒量表紀錄情緒症狀變化，對照 JSLE 臨床表現變化、及藥物劑量和副作用程度，以釐清其關連性。JSLE 與原發性雙極性疾患兩種疾病有許多共同性，發作年齡早，病程具反覆週期性。其發病機轉跟免疫系統亦有高度關聯性。臨床症狀及診斷的釐清，將有助於建立對這類個案更有效的介入模式。

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Intracranial Arachnoid Cyst Associated with Manic Episode: A Case Report

蜘蛛膜囊腫合併躁症～個案報告

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李青樺¹ 蔡佳叡^{1,2} 林志堅¹

Objective: Arachnoid cysts are rare benign lesions accounts for 1% of all intracranial space occupying lesions. They are usually detected incidentally in asymptomatic subjects. Very few patients experienced psychiatric disturbance. We report an adolescent with incidental finding of an arachnoid cyst over left frontal-temporal area alongside with a sudden onset mania.

Case Report: A 14-year-old male was brought to the emergency department (ED) due to a sudden onset of manic symptoms including elated and irritable mood, hyperactivity, decreased need of sleep, hypertalkativity, inappropriate speech, and grandiose delusion. His brain MRI revealed a cystic lesion (about 7.6cm) over left frontal-temporal area with midline shift, suggesting of an arachnoid cyst. Cyst drainage was done by neurosurgeon to relieve his increased intracranial pressure (IICP). After surgery, his mental problems (elated mood with sexual harassment) persisted. He was transferred to psychiatric ward where Haloperidol 10mg per day and Valporic Acid 1000mg per day were prescribed. His symptoms improved and presented with appropriate speech and behavior. Psychological assessment supported the problems of mood disorder and attention deficit. After discharge, he continued with valporic acid use for a month but antipsychotics was shifted to amisulpiride due to extrapyramidal symptoms. The patient discontinued all psychotropics himself thereafter. After 4 months of follow up, he showed stable mood without signs of relapse.

Discussion: In psychotic patient combined with an arachnoid cyst, three possibilities arise: there is a correlation between arachnoid cyst and psychotic symptoms, or the underlying psychosis is made worse by the cyst; or they simply co-exist. In current case, his manic symptoms improved after combined both relieving his IICP and psychotropic treatment. Follow-up for 4 months without psychotropics show no recurrence of psychosis nor mood episode. Owing to short-term follow-up, whether the arachnoid cyst co-exist with manic episode or it might induce his manic symptoms is still uncertain.

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鬱症合併幻覺及自殺問題的治療經驗：一個案報告

Treatment of Major Depressive Disorder with Hallucinations and Suicide Attempts: A Case Report

Hui-Ying Chou^{1*}, Li-Kuang Yang¹

鄒輝穎^{1*} 楊立光¹

目的：鬱症若合併精神症狀，往往反映了其嚴重度及較差的預後。而對於青少年個案，這些幻覺經驗更容易影響個案之整體功能。本文報告一鬱症合併幻覺經驗之青少年的治療經驗。

個案報告：個案為診斷有重鬱症合併精神症狀之十六歲高中二年級青少年，經診斷及多次藥物調整後，情緒及精神症狀改善有限，且因在家中及學校時常出現自傷自殺行為，有多次急診室留觀及住院情形，後續轉介進行個別心理治療及親職治療。

討論：此個案治療反映單獨藥物治療本身的侷限，而合併心理治療前，充分討論工作模式有其必要性。當認知行為治療無法提升個案改變的動機，另擇適合個案之個別心理治療及教導親職技巧，將可改善個案的情緒、精神症狀與功能。

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憂鬱症併反覆自殺行為青少年之治療經驗—— 一個案報告

Treatment of an Adolescent with Major Depressive Disorder and Repeated Suicide Attempts: A Case Report

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目的：本文報告一例憂鬱症合併反覆自殺行為、家庭關係衝突之青少年之治療過程。

個案報告；個案為 16 歲女性，自小學三年級開始，當情緒低落時，會出現自我傷害行為，以身體疼痛來緩解心理不適。上高中後因憂鬱情緒及自殺意念，開始於精神科門診就診，治療期間，個案曾因跳樓、跳湖等自殺行為，兩度入住精神科急性病房。個案家庭關係複雜，父母皆為二次婚姻，兩人因金錢常有爭執，個案自小看父母爭吵不斷，吵架過後都曾對個案說，若不是因為個案，兩人早已離異，讓個案感到痛苦，容易出現自我貶抑及自我價值感低落。個案憂鬱症狀及自殺意念常起伏不定，於急性病房出院後，除門診追蹤，亦開始一週一次個別心理治療。心理治療目標在於探索內在自我及家庭動力，協助個案覺察情緒及學習壓力因應技巧。

討論：個案對他人信任感不足、在乎他人的評價，會刻意偽裝成有趣、好玩、不在乎的形象，以迎合他人，然而此因應方式也成為壓力源之一，個案常會懷疑自己是怎樣的人、不知道自己要甚麼，對現實感到不真實，加上個案對父母有諸多不滿與不諒解等因素，導致治療上的困難。治療從家族治療、生理、心理方面著手，包含多次舉行家庭會談，協助父母及個案間達到有效溝通；生理方面，透過抗憂鬱劑使用以改善憂鬱情緒；心理方面，透過心理治療，增加想法的彈性度及加強壓力因應技巧。

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重鬱症合併自傷行為與拒學症狀之治療經驗： 一個案報告

Treatment of Major depressive disorder with nonsuicidal self-injury and school phobia : A Case Report

Yi-Hsuan Hung, Mu-Hong Chen, Kai-Lin Huang, Ju-Wei Hsu

洪亦萱 陳牧宏 黃凱琳 徐如維

壁報展示

目的：反覆非自殺式自傷及拒學是青少年憂鬱症之重要合併議題，本文報告一憂鬱症合併非自殺式自傷行為與拒學症狀之治療經驗。

個案報告：個案從小個性內向、容易焦慮，國小四年級時曾遭排擠，曾出現低落情緒、食慾下降、失眠、自殺意念等，持續時間約一周，未曾就醫，同時間個案國二的兄長出現憂鬱情緒及拒學等症狀，在家中時常出現手足間的爭執與衝突。

個案自九年級開始出現身體不適症狀，如右手疼痛、頭暈噁心等，而多次缺席學校課程，而後出現情緒低落、食慾下降伴隨體重減輕、無法專心上課、強烈自殺意念、以及多次自傷行為，持續約三周，並曾出現幻聽症狀。自去年九月起至本院精神科就診，初步排除一般器質性病因而後，入住急性病房，住院治療一個月後出院，十月開始每週一次個別心理治療、持續與家屬討論因應方式、以及持續藥物治療。出院後前三個月仍有反覆自傷行為，自傷行為漸減後出現拒學行為，目前病患漸進式返校，近期無自傷行為，並持續接受藥物與心理治療。

討論：青少年憂鬱疾患可能出現身體症狀、出席不規則等表現，嚴重時可能合併反覆自傷行為、或是幻視、幻聽等精神症狀，需與躁鬱症、思覺失調症鑑別診斷。自傷行為需鑑別是否有自殺意圖、或者為非自殺式自傷，治療上，認知行為治療、辯證行為療法、正念治療對非自殺式自傷皆有療效，本個案診斷為憂鬱症合併有精神症狀，治療上採多系統治療，同時進行藥物治療、心理治療、家族治療、與學校處遇輔導。研究顯示多系統治療相較其他治療，大幅降低自傷與自殺頻率。

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侵擾性情緒失調症合併自閉症類群障礙特質之 治療經驗：個案報告

Treatment of Disruptive Mood Dyregulation Disorder with Trait of Autism Spectrum Disorder: A Case Report

Tsung-Han Tu, Mu-Hong Chen, Kai-Lin Huang, Ju-Wei Hsu

杜宗翰¹ 陳牧宏¹ 黃凱琳¹ 徐如維¹

目的：孩童的情緒疾患除情緒低落以外，亦以情緒易怒（irritability）為主要表現。本文報告一侵擾性情緒失調症合併自閉症類群障礙特質之學齡個案的治療經驗。

個案報告：個案為一名九歲男童，就醫主訴為：持續半年之情緒易怒、焦慮，伴有暴力、自傷行為（摔東西、打家人、撞牆）及自殺意念。小一就學開始，幾乎每天放學後，有情緒易怒、哭泣等情形，每個月會有一至二次的情緒暴怒。小三下學期以來，持續一年左右，情緒易怒加劇，幾乎每天出現，每週約 2-3 次的情緒暴怒，會言語威脅傷害家人，常說活著沒意義、不想活。其情緒困擾嚴重影響到其家庭互動和就學功能，自 108 年 5 月起拒學。個案整體個性較為內向、敏感、自我中心和堅持。嬰兒時期被觀察到不易入睡、易受驚擾，兩三歲開始就表現出易怒。從小人際互動較為被動，不易跟剛認識的同儕玩，多在旁觀察，待熟悉後才能玩在一起。眼神接觸短暫。堅持度高，若事先安排的活動被取消會情緒暴怒。亦有對聲音、觸覺敏感的情況。個案自 108 年二月起至精神科就診，經評估後診斷為侵擾性情緒失調症，且合併有自閉症類群障礙之特質。治療方面，使用抗憂鬱劑提升情緒及抗精神病藥物減緩衝動/侵擾行為，並合併心理治療。先以遊戲方式建立治療關係，進一步合併認知行為治療導向，協助個案管理情緒及行為問題。

討論：情緒易怒的症狀亦表現於對立反抗症、間歇暴怒障礙症，因此，適切的鑑別診斷有助於提供生理、心理及家庭社會方面的治療介入。自閉症類群疾患的個案也經常表現出情緒易怒和情緒調節異常（mood dysregulation）的症狀。以此個案言，以自閉症類群疾患之情緒相關症狀，是否足以解釋個案的情緒行為；抑或是，因情緒疾患的共病，加重其情緒易怒和情緒調節異常的表現。此二疾患的交互作用，為值得探討的議題。

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自閉類群障礙症之早期治療：一個案報告

Early intervention for a 2y4mo boy with autism spectrum disorder : a case report

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李易娜¹ 蔡景淑^{1,2} 王亮人^{1,2} 周文君^{1,2}

簡介：自閉類群障礙症在早年兒童期常合併有語言發展遲緩甚至影響到其認知、動作發展。我們在此分享一位自閉症合併混合性發展障礙的個案在經過早療介入後發展情形改善的案例。

個案：這是一名兩歲四個月的男孩，與父母同住，因語言能力弱、與人眼神互動少，由父母親帶至門診就診。回顧個案的出生發展史，個案為38週足月產，出生體重3000gm，並無系統性身體疾病。依主要照顧者案母所述，個案從小在社會互動方面，眼神對視不佳，叫名反應差，無分享及展示行為，求助行為少，較少觀察其他人的行為也極少與人主動互動且有自我刺激如轉頭、轉圈等行為。在語言發展部分，個案兩歲時才開始有一些無意義的類似丫丫等發聲，仿說動機差且始終沒有有意義的詞彙發生。

評估及治療：我們安排了聯合評估，結果顯示其粗大動作發展邊緣性遲緩，精細動作為中下範疇，語言表達與理解、認知均落於遲緩範圍。測驗時，測驗時眼神接觸短、雙向性互動明顯不佳、無法配合指令、指令理解度也低，遊戲少功能性玩法、無法仿作，且有自我刺激行為出現。經與家長討論，我們將個案安排至日間病房作早期療育，而後，因個案排入特教班，而由日間病房出院，改入本院自閉症語言認知團體。本院自閉症語言認知團體，採分齡、以團體小班的方式進行，營造如幼兒園的學習環境，藉由唱遊、手指謠、合併多樣化的遊戲、道具刺激個案的共同注意力與互動動機。希望以核心反應訓練模式，以歌曲內容的情境、生活上常見的情境作遊戲的設計與互動，我們也邀請家長進入治療中，學習如何帶領孩子，也可延伸治療從特定場所到家中。此外，每周更換一次主題，如水果、交通工具、衣物、動物等主題，利用繪本、圖卡、手指畫媒材，提高課程的有趣性、知識性與豐富性。

治療成效及未來計畫：在早期療育課程的安排與特教班教育的介入後，個案目前的語言、認知能力均進步，在社會情緒發展較可回應社交線索，仿作、指令遵從度、共同注意力表現均進步。他的母親也欣慰個案的表現、肯定早療的成效。未來個案會持續於團體進行療育，並持續安排發展評估以定期追蹤個案的狀況。

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自閉症類群障礙症之多層面模式治療：個案報告

Multimodal treatment for a pre-school age boy with autism spectrum disorder : a case report

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簡介：自閉症症狀由 Dr. Leo Kanner 於 1943 年首次描述，當時被認為是一種罕見的疾病。在裡面在過去的數十年中，自閉症的流行診斷標準不斷變化以涵蓋更廣闊的症狀表現，在 DSM-5 中，舊稱廣泛性發展疾患已改為自閉症類群障礙症 (Autism spectrum disorder)，也將 DSM-IV 主要三大症狀改為兩大特徵，將原有的社交互動及溝通缺損兩項症狀統整為診斷準則 A，侷限、重複的行為、興趣或活動模式則為診斷準則 B，並首次標明「對感官輸入訊息的反應性」為診斷準則。針對自閉症的核心症狀，如社交互動及溝通缺損，目前並無有效藥物可加以改善。但 FDA 核可的藥物如 risperidone 及 aripiprazole 可針對自閉症病患情緒不穩或激躁行為。因此目前對於自閉症之治療仍以行為治療為主軸。

個案：案為 3 歲 2 個月男性，目前就讀幼稚園幼班，因無口語表達，無法遵從指令並迴避眼神接觸而由祖母帶至本院就診。澄清病史及臨床發現，個案一歲六個月前仍有牙牙學語之語音，爾後聲音漸少，如今無口語也無仿說能力。並且社會情緒相互性差，缺乏非語言溝通行為，並且高度堅持同一性、有刻板行為及對痛覺反應過低。整體表現符合自閉症類群障礙症。魏氏智力測驗顯示認知發展落於輕度發展遲緩。經評估後曾於日間留院治療八個月，人際互動改善，後持續進行團體治療，家長全程參與，治療結束後並與家長討論治療方針。自閉症團體治療，目的是為改善個案社會情緒相互性，以促進個案發展口語能力及人際互動，治療後適當衛教家長疾病認知及提升家長對於個案行為問題之處理手法。經治療後，個案口語能力明顯改善，並發展出非語言溝通行為，但社會情緒相互性及人際關係互動性仍顯不足。

評估與治療：利用應用行為分析 (Applied behavioral analysis) 及軸心反應技能訓 (Pivotal response training, PRT) 的原則，使用逐漸消褪原則，透過跟隨孩子有興趣的遊戲內容，運用自然增強及循序漸進的方式以提示、消退、型塑和鍵結等操作制約的原則引導孩子穩固新的行為技巧，並將提示逐步褪除，逐步減低固執及僵化行為。除此之外也注重孩子能將所學類化在其他日常生活情境上。本個案的治療課程安排一週一次，並在每兩週課程結束後與醫師進行個別治療以加強家長衛教，本個案主要由案祖母擔任主要照顧者之腳色，因此上課過程邀請案祖母全程參與，希冀案祖母在上課時觀察並學習治療師的引導技巧，並將教學生活化，應用在家庭、幼稚園或是其他社交場合，以達到最大治療效益。由於個案於社交互動、人際溝通及社交情境辨識能力不足，因此在幼稚園總是無法與其他孩子良好互動。本治療模式對於個案來說，提供了一個類似幼稚園的教育環境，且教導個案遵從指令，並增加與其他同年齡孩子互動的機會，鼓勵個案模仿及與同儕競爭，提升個案社會互動性。然而因團體無法針對孩子個別差異做進一步的指導，因此醫師在每兩週課程結束後會針對個案在上課時的參與表現，以及案祖母在家觀察到的獨特社交溝通線索給予個別化的建議及治療。如衛教案祖母如何使用個案感興趣的事物在課堂以外的環境隨機創造出一個教學情境，察覺個案溝通意圖並敏銳地加以強化、及時給予正向回饋。以及與幼稚園老師及巡回輔導老師溝通並創造一個更有利於個案學習的環境。

治療成效及未來計畫：經多層面模式治療後，個案社會互動性及語言、非語言溝通能力明顯進步。未來著重加強個案社交技能、溝通能力及認知功能，並改善個案固著性及減少自我沉浸之行為。針對個案因高選擇性注意力及動機不足而導致無法完成心理測驗及部分課程參與度不佳，也增加獎賞制度以提升個案參與動機。

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安置後狂騷：一個家暴遭安置孩子的個案報告

A Case Report of an abused child after emergency placement

Chen, Hsuan Lin

陳璇璘

這是一位 10 歲 11 個月男童的個案報告。個案長期有注意力不足、過動衝動和情緒調節問題，就讀國小五年級輔以分散式資源班。近半年行為問題加劇、衝突後遭案家屬遺棄、因此被緊急安置於機構；但後續頻繁有激動情緒和肢體攻擊行為，學校和機構困難因應，多次急診處置後兩度安排住院治療。提供結構性環境、藥物和行為治療介入後，個案雖仍有專注力不佳、好動、傾向爭辯的狀況，但整體情緒穩定度提升，從起初的困難進入關係、無法等待、一再挑戰界線，逐步能建立較穩定安全的依附關係，願意妥協和讓步、建立衝動自制的觀念、甚至能口頭表達自己的內在狀態。

A randomized, double-blind, placebo-controlled clinical trial on ORADUR[®]-Methylphenidate in drug-naïve children with attention-deficit/hyperactivity disorder: A counting Stroop functional MRI Study

隨機分配、雙盲、安慰劑對照控制以評估 ORADUR[®]-Methylphenidate 對患有注意力不足過動症的兒童青少年腦功能影響的臨床試驗：計算叫色作業功能性核磁共振分析

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Abstract: Background: Methylphenidate is effective in treating attention-deficit hyperactivity disorder (ADHD) but the data on the neural substrates for brain activity changes after treatment with methylphenidate is limited. This study aims to investigate neural correlates for brain activity changes with treatment of a new medication, ORADUR[®]-Methylphenidate, in drug-naïve children with attention-deficit/hyperactivity disorder (ADHD) in Taiwan.

Methods: We recruited 28 drug-naïve children with DSM-5 ADHD and 28 typically developing (TD) children with similar distributions of age, sex, and IQ. All the participants completed the counting Stroop task within the functional MRI (fMRI) scan, and ADHD participants had the 2nd fMRI assessment after 8-week treatment with ORADUR[®]-Methylphenidate. Both ADHD (before and after treatment) and TD groups were assessed with the Rapid Information Processing and Continuous Performance Test. The initial daily dose of ORADUR[®]-Methylphenidate was 22 mg, and the last average dose was 30.0±9.7mg.

Results: ORADUR[®]-Methylphenidate significantly decreased overall clinical and ADHD symptoms (Cohen's d, 0.98 to 2.32). We found less activation in the right inferior frontal gyrus (rIFG) in pre-treatment ADHD than TD, greater activation in the dorsal anterior cingulate cortex (dACC) and the right dorsolateral prefrontal cortex (rDLPFC) from pre-treatment to post-treatment, and greater activation in the dACC and rDLPFC in the post-treatment ADHD group than TD. Partial correlation analyses showed the beta values of the dACC, rDLPFC and rIFG were significantly correlated with CCPT response style ($r=.45$, $p=.025$), CCPT perseveration ($r=.47$, $p=.019$), and A' (target sensitivity) of RVP ($r=.45$, $p=.023$) and CCPT response style ($r=.45$, $p=.026$), respectively, after controlling the effect of overall clinical and ADHD symptoms.

Conclusion: Treatment with ORADUR[®]-Methylphenidate may improve the brain activity in the dACC, rDLPFC, and rIFG corresponding to improving focused attention, impulsivity, and inhibition control in drug-naïve children with ADHD. These brain regions might play a role as biological markers for the treatment effectiveness of methylphenidate.

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The Norepinephrine Transporter Gene Modulates Brain Activations in Attention Deficit Hyperactivity Disorder

正腎上腺素轉運基因對注意力不足過動症調節神經活性之效應

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Objective: The norepinephrine transporter gene (SLC6A2) has been consistently reported to be associated with attention-deficit hyperactivity disorder (ADHD). This study aimed to examine whether a SLC6A2 haplotype affected functional brain activations in children with ADHD.

Method: We recruited a total of 109 drug-naïve children with ADHD (48 with the SLC6A2 rs36011 (T)/rs1566652 (G) haplotype and 61 without the TG haplotype) and 121 typically developing children (TDC, 64 with the TG haplotype and 57 without the TG haplotype). The brain function of all the participants were assessed by using the counting Stroop task inside the scanner.

Results: Compared with TDC, children with ADHD were associated with decreased brain activations in bilateral middle temporal gyri (MTG) and right postcentral gyrus. The TG haplotype was associated with decreased brain activations in the left anterior cingulate cortex (ACC), left inferior frontal gyrus (IFG), and left MTG. Significant interactions of ADHD and the TG haplotype were found in the left ACC, left MTG, left precuneus, and left angular gyrus.

Conclusions: The present study demonstrated SLC6A2-related alterations of brain activations in specific brain areas, including ACC, IFG and MTG. Our findings added to those already published in describing the differential effects of SLC6A2 genotype on the neurophysiology in ADHD with illustrating the functional consequences of the SLC6A2 rs36011 (T)/rs1566652 (G) haplotype.

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White matter microstructural integrity correlates of emotion dysregulation in youths with attention-deficit hyperactivity disorder

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Abstract / Objectives: Emotion dysregulation (ED) is common in ADHD but neural correlates associated with ED in ADHD remains under-investigated. Integrity of white matter (WM) tracts could have important implications for affective processing related to ED. We aimed to investigate WM correlates of ED and to test the brain-behavior relationships among ADHD youths and typically developing controls (TDC), by using diffusion spectrum imaging (DSI) and canonical correlation analysis (CCA).

Methods: DSI was performed to obtain the generalized fractional anisotropy (GFA) value of 76 WM tracts in 77 youth with ADHD and 105 TDC. The ED severity was defined by the dysregulation profile of CBCL. CCA was performed to identify modes which relate WM microstructural property of 76 tracts to ED severity and cognitive measures across the whole cohort.

Results: The application of CCA identified one significant mode ($r = 0.638$, FWE-corrected $p = 0.046$) of interdependences between WM property patterns and the diagnosis, ADHD total symptom levels, dysregulation by diagnosis interaction and FIQ. GFA values of 19 tracts, including the bilateral ILF, left cingulum of main body component and hippocampal component, bilateral stria terminalis, left IFOF, bilateral AF, left UF, right SLF, left TR of auditory nerve and precentral gyrus, posterior commissure, corpus callosum of paracentral lobule, superior parietal lobule, splenium, inferior parietal lobule, and SMA, were positively correlated with ED severity in TDC, but negatively correlated with ED severity in ADHD. ADHD symptom severity and diagnosis (expressed as ADHD > TDC) were also negatively associated with GFA patterns of this set of tract bundles; whereas FIQ was positively associated with this set of tract bundles.

Conclusions: This study provides empirical evidence to suggest that ADHD and TDC have distinct associations of emotion regulation with the property of WM tracts through different mechanisms involving coordination among multiple brain systems.

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Durability of training effect of PEERS social intervention program in Taiwanese young adults with autism spectrum disorder

PEERS 社交技巧訓練對台灣自閉症類群 青年之療效追蹤

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Objective: Social deficits among individuals with autism spectrum disorder (ASD) are lifelong, which may impact occupational function and mental health particularly for the young adults. Program for the Education and Enrichment of Relational Skills (PEERS[®]) has been proved to effectively improve social skills for individuals with ASD across different cultures. This study aimed to investigate the durability of the effectiveness of PEERS intervention in Taiwanese young adults with ASD.

Method: We recruited 82 young adults with ASD and randomized them to the PEERS (n=41) and control group (n=41). A total of 36 young adults completed the PEERS intervention. For those who completed the program, their social deficits, autistic symptoms, social interaction anxiety, empathy and social skill knowledge were compared before and after the intervention, and the maintenance of training effect was examined at 3-month and 6-month follow-ups.

Results: We found significant effectiveness on social deficits, autistic severity, social interaction anxiety, empathy, and social skill knowledge either by self-report or coach-report. Most effects maintained at 3-month and 6-month follow-ups, with improvement on both self-report and coach-report social communication, social emotion problem, stereotyped behaviors and total scores of Social Responsiveness Scale, Autism-Spectrum Quotient socialness and total scores, empathy, social skill knowledge, and social interacting anxiety. Among them, only the effect on social emotion problem disappeared at 6-month follow-up.

Conclusion: Findings suggested PEERS intervention effectively improved social deficits, social interaction anxiety, social skill knowledge, and empathy in Taiwanese young adults with ASD. Most training effects maintained for at least 6 months after training.

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Decreased risk of influenza in child and adolescent patients with attention deficit hyperactivity disorder following methylphenidate treatment: A nationwide cohort study in Taiwan

接受 methylphenidate 治療之注意力不足過動症之兒童青少年可降低流感風險：台灣全國世代研究

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Background: Young individuals with attention deficit hyperactivity disorder (ADHD) may have an elevated risk of influenza because of the difficulty in complying with the behavioral procedures that help protect against influenza. Moreover, the effects of sufficient methylphenidate treatment on influenza have received little attention.

Objective: This study evaluated the association between ADHD medication usage and influenza and assessed the effect of duration of ADHD treatment on the risk of influenza using a nationwide population-based database.

Methods: This study investigated methylphenidate usage and the risk of influenza among children and adolescents with ADHD. We identified 5,259 young individuals aged less than 18 years who were diagnosed as having ADHD between 1997 and 2013 from the National Health Insurance Research Database of Taiwan, and we tested whether methylphenidate use affects influenza risk using Cox proportional hazard models.

Results: After controlling for confounding factors, the results indicated that influenza risk significantly reduced in the group of ADHD patients who were prescribed methylphenidate for 90 days and more (hazard ratio [HR]: 0.62, 95% confidence interval [CI]: 0.52–0.75, $p < 0.001$), demonstrating a 38% reduction in the risk of influenza in this group. However, this was not observed in the group of ADHD patients who used methylphenidate for 1–90 days (HR: 0.69, 95% CI: 0.89–1.05, $p = 0.12$).

Conclusions: The lower incidence of influenza observed in the group prescribed with methylphenidate for a longer period highlights the importance of compliance to medication and psychoeducation with regard to ADHD management.

Keywords: ADHD, influenza, methylphenidate

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Discriminative validity of visual and auditory attention tests for differentiating patients with ADHD from healthy controls

視覺與聽覺注意力測驗對 ADHD 與健康對照個案的區辨效力

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Objectives: Neuropsychological tests may be able to improve the accuracy of diagnosis of attention-deficit/hyperactivity disorder (ADHD). Given the difference between primary auditory and visual perceptual systems, attention may be modality-specific. This investigation examines the discriminative validity of visual and auditory attention tests for differentiating patients with ADHD from healthy control subjects.

Methods: A total of 107 ADHD patients (mean age 9.6 years, 78.5% males) and 58 healthy control subjects (mean age 9.9 years, 62.1% males) were recruited. Visual and auditory attention profiles were obtained using the Conners' Continuous Performance Test 3rd Edition (CPT3) and Conners' Continuous Auditory Test of Attention (CATA), respectively. Logistic regression was utilized to yield composite probability scores of CPT3, CATA and CPT3 plus CATA. Receiver operating characteristic (ROC) curves and the area under the curve (AUC) were used to evaluate the specificity, sensitivity, positive predictive value (PPV) and negative predictive value (NPV) of the probability scores that were obtained yielded by logistic regression.

Results: ADHD patients underperformed healthy controls on all CPT3 and CATA indexes, except Response Style and Hit Reaction Time. The predicted probability scores of CPT3 (AUC: 0.829, $p < 0.001$), CATA (AUC: 0.740, $p < 0.001$) and CPT3 plus CATA (AUC: 0.907, $p < 0.001$) all significantly differentiate ADHD patients and controls. CPT3 plus CATA had a greater sensitivity (82.6%), specificity (76%), PPV (88.8%), NPV (65.5%) and overall correct classification rate (80.6%) than CPT3 or CATA alone. The discriminative validity is unaffected by the patients' age, gender or intelligence quotient.

Conclusions: Assessments of both visual and auditory attention may assist in the clinical diagnosis of ADHD and increase the accuracy of ADHD identification. Neuropsychological tests CPT3 and CATA may provide objective information about cases of ADHD, and may be considered as routine clinical assessments.

Keywords: ADHD; neuropsychological test; visual attention; auditory attention; clinical symptoms

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Association between Callous-Unemotional Traits and Cyberbullying and Traditional Bullying Involvement among Adolescents with Attention-Deficit/Hyperactivity Disorder and Autism Spectrum Disorder

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Abstract / Introduction: The aims of this cross-sectional study were to examine the relationships of callous-unemotional (CU) traits with cyberbullying and traditional bullying victimization and perpetration among adolescents with attention-deficit/hyperactivity disorder (ADHD) and autism spectrum disorder (ASD).

Methods: In total, 56 adolescents with ADHD, 30 adolescents with ASD and their parents completed the Chinese Version of the Inventory of Callous and Unemotional Traits (C-ICUT) to assess adolescents' levels of callousness, uncaring, and unemotional. Adolescents' experiences of cyberbullying and traditional bullying were assessed using the Cyberbullying Experiences Questionnaire and Chinese version of the School Bullying Experience Questionnaire, respectively. Correlations between CU traits and cyberbullying and traditional bullying involvement were examined using Spearman's correlation.

Results: Adolescent-reported callousness was positively associated with adolescent-reported traditional bullying victimization and perpetration and parent-reported traditional bullying victimization. Adolescent-reported uncaring was positively associated with adolescent-reported traditional bullying perpetration. Parent-reported callousness was positively associated with adolescent-reported traditional bullying victimization. Cyberbullying was not associated with CU traits.

Discussion: Some dimensions of CU traits were significantly associated with traditional bullying victimization and perpetration.

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以臨床症狀預測兒童注意力不足過動症： 機器學習之應用

Predicting Children with Attention-Deficit/Hyperactivity Disorder Based on Clinical Symptoms: Machine Learning Approach

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目的：本研究在於使用機器學習，採用監督式學習的方式，嘗試建立模型，來預測注意力不足過動症及注意力不足症。

方法：以北部某一家綜合醫院院 2017 至 2019 年內，292 位 6 至 17 歲注意力不足過動症患者，收集其家長、老師問卷及心理評估，找出特徵值，並以 MATLAB 軟體進行機器學習、建立模型，並評估模型的準確率。

結果：發現使用機器學習建立的模型，最佳的情況下，有 90% 以上的準確率。

結論：以人工智慧協助醫療應用一直是近幾年的研究方向，若以大數據的資料進行機器學習並建立模型，可能協助臨床醫師區變注意力不足過動症及注意力不足症。

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Comparisons of Callous-Unemotional Traits among Adolescents with Attention-Deficit/Hyperactivity Disorder, Autism Spectrum Disorder and Typical Development

注意力不足過動症、自閉症類群障礙症和 典型發育青少年之冷酷情緒特徵比較

I-Hsuan Lin^{1*}, Cheng-Fang Yen²

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Abstract / Introduction: The aims of this study were to compare the level of callous-unemotional (CU) traits among adolescents with attention-deficit/hyperactivity disorder (ADHD), autism spectrum disorder (ASD) and typical development (TD).

Methods: In total, 207 adolescents with ADHD, 126 adolescents with ASD, and 203 adolescents with TD participated in this study. Adolescents and their parents completed the Chinese Version of the Inventory of Callous and Unemotional Traits (C-ICUT) to assess adolescents' levels of three dimensions of CU traits (callousness, uncaring, and unemotional). CU traits scores on the three subscales of the C-ICUT were compared among the TD, ADHD and ASD groups using analysis of covariance (ANCOVA), in which the effects of sex and age were controlled for.

Results: The results indicated that after controlling for the effects of sex and age, the differences of the scores between parent-reported and adolescent-reported CU traits on the three C-ICUT subscales were significantly different among the TD, ADHD and ASD groups. The results of post-hoc comparisons found that the differences of the scores between parent-reported and adolescent-reported callousness trait in the ASD and ADHD groups were significantly higher than that in the TD group. The difference of the score between parent-reported and adolescent-reported uncaring trait in the ASD group was significantly higher than that in the TD group. The difference of the score between parent-reported and adolescent-reported unemotional trait in the ADHD group was significantly higher than that in the ASD group. However, the direction of the unemotional score difference of was contrary to that of the callousness and uncaring scores.

Discussion: The levels of CU traits among adolescents with ADHD, ASD and TD varied.

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Trajectories in Development of Attentional Profiles in Individuals with and without Autism in A Longitudinal Follow-up Cohort

專注能力發展軌跡在自閉症與非自閉症族群之 長期世代性研究

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Objectives: Autism spectrum disorder(ASD) is a neurodevelopmental disorder; beyond the core symptoms, attention difficulties are frequently reported in some individuals with ASD (Mayes et al., 2012). It has been theorized that impairments in attention may underlie some of the primary neurophysiological deficits in ASD (Leitner, 2014). Symptoms of attention deficits will moderate cognition and social behavior in children with ASD; that is, attention deficit in children with ASD will influence their developmental trajectory (Simonoff et al., 2019, Yerys et al., 2009). A longitudinal study to clarify the trajectories of attentional profiles overtime is needed.

Methods: The sample included 194 participants with ASD diagnosed according to the DSM-IV and DSM-5 (mean age 10.59 years at time 1, 18.29 years at time 2; follow-up duration, 7.70 years) and 96 non-ASD controls (mean age 10.46 years at time 1, 15.05 years at time 2; follow-up duration 4.59 years). They received repeated Connors' Continuous performance test (CCPT) assessments at two time points.

Results: Both groups showed improvements in all attention profiles. Despite the greater magnitude of improvement in omission, Hit RT, Hit RT SD, Response style, and preservation in ASD than controls, individuals with ASD still performed worse in various attentional profiles in the CCPT test than controls at the follow-up. Better time 1 CCPT performance predicted better performance at follow-up.

Conclusion: Our findings suggest developmental improvement in a variety of attention profiles observed in the typically developing controls as well as individuals with ASD; nevertheless, individuals with ASD still suffered from more attention difficulties at adolescence and adulthood.

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Evidence-Based Practice- Quality Examination of Studies for Groups Social Skills Interventions of Adolescents with Autism Spectrum Disorder

實證實務——泛自閉症青少年社交技巧團體治療之研究品質檢驗

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許維堅^{1*} 王心怡¹

Objective: Evidence-based practice (EBP), based on both research quality and treatment outcomes of intervention studies, is crucial to the improvement of clients with autism spectrum disorders (ASD). The study aimed to examine the research quality of the studies that focused on the group social skills interventions (GSSIs) for adolescents with ASD in order to facilitate EBP and their progress.

Methods: We have searched the Ovid MEDLINE, PsycINFO, ERIC, Web of Science, TOC Premier databases with the keywords: (1) autism or autistic, (2) social or psychosocial, (3) therapy or training or intervention or treatment, and (4) randomized or quasi-experimental design studies. Selected papers published from 1994 to 2019 and meeting the inclusive criteria were examined with the primary and secondary quality indicators.

Results: The number of the studies represented the potential to meet the criteria of established EBP is still limited. However, there are some studies using manualized intervention and showing the characteristics of promising EBP. Most studies had fallen into the trichotomous ordinal scale of high or acceptable quality but many studies had failed to meet the criteria of social validity and generalization/maintenance.

Conclusions: The present study provided updated information of the research quality for EBP and GSSIs for adolescents with ASD. Many studies represented the characteristics of promising EBP by meeting certain criteria of primary quality indicators. We have addressed the limitations of the quality indicators and the current study as well as provided further suggestions in order to identify EBP for clients with ASD.

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Analysis of the violence incidents notified of child and adolescent patients in a psychiatric hospital, in south of Taiwan

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謝冠瑩^{*} 蔡景宏 陳冠旭 呂俊雄 李幸蓉 許兆璋

Abstract / Objective: Violence frequently occur in hospital and are often considered to be preventable. Better knowledge of factors contributing to violence is required to build safer care. This study aimed to evaluate the violence incidents of child and adolescent patients, in a psychiatric hospital in southern Taiwan.

Method: We screened patients' age between 0 to 18 with mental illnesses who had violence between Jan 1, 2002 and Dec 31, 2007 and identified 383 violence incidents. A descriptive statistical analysis was then conducted.

Results: Among the 383 violence incidents, 281 incidents in boys and 102 incidents in girls. The mean ages were 15.2 in boys and 16.4 in girls with statistical significance ($P < .001$) The incident with the highest prevalence in this study was physical aggressions toward human (317, 82.8%), followed by physical aggression toward objects (63, 16.4%) and verbal aggression (3, 0.8%). Males were dominating in all violence incidents. The diagnoses with the highest incidence in this study was pervasive developmental disorder (180, 47.0%), followed by intellectual disability (33, 8.6%) and mental disorder due to general medical condition (31, 8.1%). Males were dominating in all violence incidents.

Conclusions: Male, pervasive developmental disorder, past history of violence were risk factor of violence in child and adolescent psychiatric patient group, especially physical aggression toward human. We suggest clinicians to observe for the symptoms and signs for violence for both patients and staffs' safety. Further research exploring the links between working conditions and human factors is required.

Key words: violence; psychiatry; child and adolescent

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高雄市立凱旋醫院兒童及青少年精神科

侵擾性情緒失調症合併重大行為偏差——個案報告

Disruptive mood dysregulation disorder and behavior deviation: A Case Report

Ping-Tsun Chang, MD, MSc.^{1,2}

章秉純^{1,2}

壁
報
展
示

目的：侵擾性情緒失調症為 DSM-5 中始出現之診斷。本文報告一侵擾性情緒失調症，合併行為偏差之個案其治療經驗。

個案報告：個案為 7 歲男童。個案與父母及 9 歲之哥哥同住，個案與其家族中無已知之發展遲緩與精神科問題。根據案母所述，個案自小即常常因小事暴怒，稍不順意即會大聲哭鬧，且每次情緒激動持續時間長，即使滿足其要求亦難立即平復。案母教育方針具原則，個案情緒激動時，案母並不會刻意安撫，也不會因個案情緒激動而滿足個案要求。個案入小學後，教師亦注意到個案常因被指正錯誤、被要求完成教學活動時等細故而情緒激動，且需要較長時間才能平復。一學期後，個案情緒激動則對數名同學無故使用暴力，且自述「因為我不高興，我不知道為什麼」。且暴力行為為包含咬人、打人、踢人等。若教師上前處理，個案亦會攻擊教師。後多名教師介入處理個案，個案會選擇僅與其中一位較寬容個案之教師互動，若不從個案要求，個案則又攻擊同學。即令案母在家處罰個案，個案在學校依然重複此類行為，故帶來兒童身心科門診。個案在校學業表現正常。個案父母填寫之 SNAP-IV 並未顯示明顯注意力不足過動症傾向。魏氏兒童智力測驗 (WISC-IV) 中，個案在各方面的能力表現亦均可達該年齡應有之水準。具備良好的語文理解與抽象思考能力，思考判斷和問題解決能力尚佳，訊息處理速度正常，思考與知覺歷程未偏離常軌，總智商落入一般智能的範圍內，整體認知功能並未呈現明顯障礙。診斷為侵擾性情緒失調症，且建議學校避免增強個案的問題行為，當出現問題行為時，即請案母立即帶回家中。合併親職教育、行為治療與以 SSRI 為主之藥物治療。治療數月後，該個案的問題行為已極少發生，情緒狀況發生之頻率亦明顯降低。

討論：兒童的易怒症狀不同於成人之雙極性情感疾患，其易怒常是持續不間斷的。且影像學研究顯示 DMDD 兒童的杏仁核、頂葉、枕葉與額葉在實驗中會出現異常活動。於感受挫折期間，其後扣帶迴和頂葉皮質 (Posterior cingulate cortex and parietal lobe) 亦顯示其活動降低。研究顯示侵擾性情緒失調症具生理因素。可能與此個案合併藥物與行為治療，而獲得改善之治療經驗相關。

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Systemic anaphylaxis caused by paliperidone palmitate prolonged-released injection in an adolescent patient tolerant of oral Paliperidone

長效 Paliperidone 針劑於一位可耐受口服 Paliperidone 之青少年患者所引發之系統性過敏

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林達偉^{1*} 王奕山²

壁報展示

Objective: This case report presents an adolescent patient who had well tolerability to oral paliperidone 9-12 mg/day for 2 more months, then encountered systemic anaphylaxis immediately subsequent to the first paliperidone palmitate injection.

Case Report: This 16 y/o female schizophrenia patient had suffered from reference delusion , being controlled delusion , auditory and visual hallucination for 6 months before seeking our help. Her psychotic symptoms mostly relieved with oral paliperidone 9~12mg/day and there was no noticeable adverse effect. Under adherence consideration, paliperidone palmitate injection 150mg was given after 63 days of oral paliperidone use. Shortness of breathing and rash over facial 、trunk area took place several minutes after giving an injection. The above symptoms subsided within 1 hour after Chlorpheniramine and Dexamethasone injection. She and family chose to keep oral paliperidone regimen 12mg/day and there was no noteworthy adverse effect since then.

Discussion: Paliperidone extended-release tablet is one of the few antipsychotics that own adolescent use indication. Considering the same active compound they have , paliperidone palmitate prolonged-release injection has been frequently used in adolescent psychotic disorders and usually had fair tolerability. According to the package insert of paliperidone palmitate prolonged-release injection, tolerability should be established with oral paliperidone or risperidone before injection. However, in adolescent patients with established oral tolerability of paliperidone, systemic anaphylaxis still may be induced by excipients such as polyethylene glycol or sodium hydroxide.

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Autism spectrum disorder and heavy metals: a preliminary report among young children in Taiwan

自閉症類群障礙與重金屬： 台灣年幼兒童族群的初步報告

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Shen-Ing Liu^{1,2}, Shu-Li Wang⁴

黃郁心^{1*} 黃惠君² 陳慧如³ 劉惠青¹ 劉珣瑛^{1,2} 王淑麗⁴

Objective: Previous meta-analysis showed some heavy metals are higher among ASD children comparing with normal controls. However the data among East Asia is limited. We would like to examine if the urine heavy metal was different from ASD and normal control.

Method(s): We invite 41 ASD (6 are females) and 82 normal children (sex and age compatible) and collect their urine to examine heavy metal levels. Mean age of ASD children was 58.3 months old (standard deviation STD: 15.2); while normal children was 52.5 months old (STD: 7.1). The heavy metal (Cadmium, Cobalt, Gallium, Iron, Selenium, Vanadium, Chromium, Manganese, Nickel, Copper, Thallium, Lead, Zinc, Tin, Arsenic and Indium) was examined by inductively coupled plasma mass spectrometer. We conducted logistic regression analyses to examine the level of each metal between 2 groups. Gender and age were controlled.

Result(s): We found that urine nickel was higher in ASD group (odd ratio OR=1.20; 95% confidence interval CI=1.02~1.41). Urine copper was higher in ASD group (OR = 1.07; 95% CI= 1.02~1.11). Urine Manganese was higher in ASD group (OR = 5.57; 95% CI = 2.25~13.8). Urine lead was higher in ASD group (OR=8.04; 95% CI = 3.27~19.8). (All had normal urine copper, manganese and lead level.)

Conclusion(s): A small sample study found borderline higher nickel in urine of ASD children. Previous meta-analysis showed higher blood copper and lead among ASD children. Generally speaking, our results are comparable with previous studies. The impact should be further surveyed.

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專思達

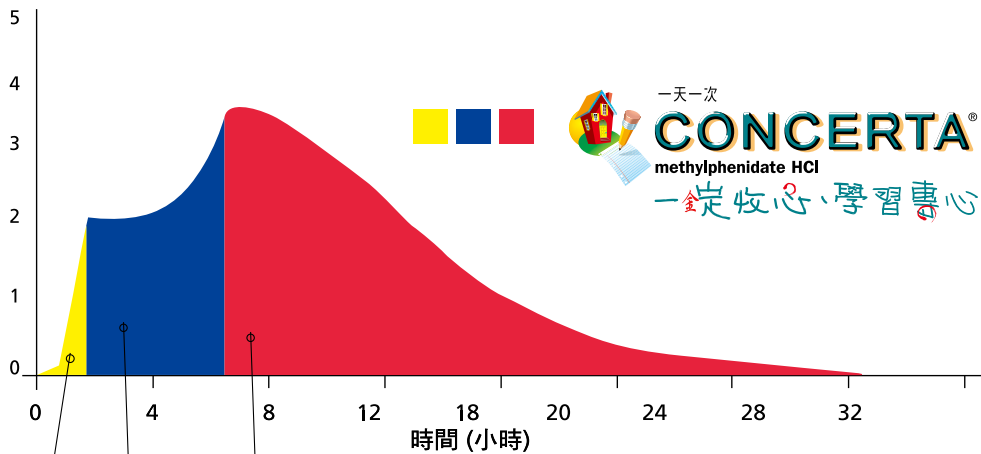
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- 8:00 am 專心上課四個小時，小case！
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- 1:30 pm 上數學課，老師誇我很專心！
- 3:00 pm 到操場玩遊戲，同學都想跟我同一隊！
- 4:00 pm 吃個點心，晚上還要加油呢！
- 6:30 pm 家庭作業做完囉！媽媽好開心！YA!!!

專思達
血中濃度

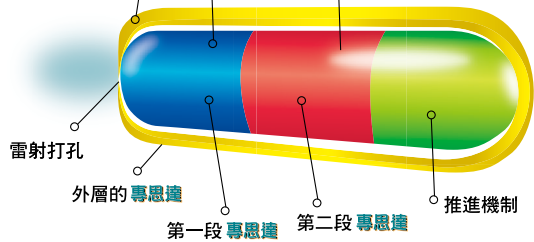


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3. 下午：更高劑量的專思達在下午釋放出來，形成上升型的藥物血中濃度，不受食物影響，繼續提供穩定的療效。

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- 治療 6 歲(含)以上及 65 歲(含)以下患有注意力不足過動症之兒童、青少年及成人病患。
- [用法用量]
- 因服藥十二小時後仍有療效，故病患應於每天早上空腹或用餐後服用CONCERTA[®]一次，並與開水完全吞服。
- 切勿不要咀嚼、剝碎或碾碎。
- 對於目前未服用Methylphenidate 或其他興奮劑的兒童及青少年病人，CONCERTA[®]的建議起始劑量為每日服用 18 毫克，成人則為每日服用 18 或 36 毫克 [目前正服用methylphenidate的病人，持續/長期治療、特殊族群的用法用量請詳見仿單]
- 當病人於低劑量時未達最佳效果時，應間隔每週增加18 毫克來調整劑量。目前尚未對兒童高於54 毫克的劑量和青少年高於72 毫克的劑量進行研究。成人最大劑量每日不得超過72 毫克。

[禁忌症]

- 下列狀況禁用Concerta[®]：
- 已知對methylphenidate 或其他本藥品成分有過敏反應的病人。
- 明顯地焦慮、緊張和躁動不安的病人。
- 青光眼病人。
- 關於動作型不自主抽動或有妥瑞氏症的家庭病史或診斷之病人。
- 接受單胺氧化酶(MAO)抑制劑治療期間，及停用MAO抑制劑未滿十四天(可能會造成高血壓危險)。

[詳見仿單之“交互作用”欄]

[特殊警語及注意事項]

- 有藥物依賴性或酗酒史的病患服用 CONCERTA[®]時應小心謹慎。
- 嚴重心血管反應。
- 精神方面不良反應。
- 在服用期間應停止服用此藥。
- 在兒童及成人病患中都有在使用methylphenidate產品(包括CONCERTA[®])期間發生持續性及疼痛性陰莖勃起(有時必須手術介入治療)的報告。
- 用於治療ADHD的興奮劑(包括CONCERTA[®])可能會引發周邊血管病變，包括雷諾氏症候群。
- 長期生長抑制。
- 胃腸阻塞的可能性。
- 興奮劑治療會有阻礙調節作用困難以及視力模糊的案例通報。
- 上市後研究報告已有發生服用ADHD 藥物患者曾發生自殺相關事件的通報，包含自殺意念、企圖以及非常罕見地發生自殺成功。

[副作用]

- 在雙盲臨床試驗中，於兒科病患中(兒童及青少年)最常見的不良反應(>5%)為上腹部疼痛。在雙盲臨床試驗中，於成人病患中最常見的不良反應(>5%)為食慾降低、頭痛、口乾、噁心、失眠、焦慮、頭暈、體重下降、易怒、及多汗。

[使用前請詳閱說明書不良反應-特殊警語及注意事項]

Reference: Concerta USPI Jan2017_v1901

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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

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