陳昭縈 Chao-Ying Chen, PT, MS, PhD

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CURRENT ACADEMIC POSITION 現職

Nationwide Children's Hospital, Columbus, Ohio, USA

副教授 **Associate Professor** Aug 2024 – Present Chang Gung University (長庚大學), Taoyuan City, Taiwan School of Physical Therapy and Graduate Institute of Rehabilitation Science PREVIOUS ACADEMIC POSITION 過去學術職位 助理教授 **Assistant Professor** Feb 2021 – Jul 2024 Chang Gung University (長庚大學), Taoyuan City, Taiwan School of Physical Therapy and Graduate Institute of Rehabilitation Science 助理教授 **Assistant Professor** Dec 2017 – Jan 2021 The Hong Kong Polytechnic University (香港理工大學), Hong Kong. Department of Rehabilitation Sciences (復健康復學系) EDUCATION 學歷 博士 Doctor of Philosophy (Ph.D.) in Health and Rehabilitation Sciences Sept 2009 – Dec 2014 The Ohio State University (俄亥俄州立大學), Columbus, Ohio, USA 碩士 Master of Science (M.S.) in Physical Therapy and Assistive Technology Sept 2006 – June 2008 National Yang-Ming University (國立陽明大學), Taipei City, Taiwan 學士 **Bachelor of Science (B.S.) in Physical Therapy Sept 2002 – June 2008** National Yang-Ming University (國立陽明大學), Taipei City, Taiwan OTHER JOB HISTORY 其他資歷 博士後研究員 **Postdoctoral Associate/Fellowship** Apr 2015 – June 2017 University of Minnesota (明尼蘇達大學), Minneapolis, Minnesota, USA Gillick Pediatric Research Laboratory <u>研究人員</u> **Research Associate** Sept 2012 – Aug 2014

Cardiovascular and Pulmonary Research (Harrison Lab)

<u>研究人員</u>

Research Associate

The Ohio State University, Columbus, Ohio, USA The Infant Biomechanics Laboratory

<u>研究人員</u>

Research Associate

National Yang-Ming University, Taipei City, Taiwan The Orthopedic Biomechanics Laboratory

TEACHING EXPERIENCE 教學經歷

長庚大學物理治療學系暨復健科學研究所

School of Physical Therapy and Graduate Institute of Rehabilitation Science, Chang Gung University, Taiwan

- PT2026 (物治系) 兒童發展學
- PT3044 (物治系)-進階小兒物理治療
- PT1020 (物治系) 物理治療導論
- PT3010, PT3021, PT4001, PT4002(物治系)- 臨床實習(1)(2)(3)(4)
- PT4007 (物治系) 物理治療專題討論
- RSM001 (物治系復科碩士班) 復健科學研究趨勢
- RSM010 (物治系復科碩士班) 研究方法學
- RSD001, RSD002 (物治系復科博士班) 專題討論 (1)(2)
- RSD004 (物治系復科博士班) 研究設計
- RSD006 (物治系復科博士班) 實證復健科學
- RSD122 (物治系復科博士班) 臨床專業決策
- EIM020 (早療所碩士班) 專題討論

香港理工大學復健康復學系

Department of Physical Therapy, The Hong Kong Polytechnic University, Hong Kong

- HSS101 (BSc) Freshman Seminar for Board Discipline in Health Science
- RS2690 (BSc) Principles of Physiotherapy Practice
- RS3771 (BSc) Cardiopulmonary Physiotherapy II
- RS5310 (MPT) Principles of Physiotherapy practice
- RS5316 (MPT) Cardiopulmonary Physiotherapy
- RS5317 (MPT) Paediatric Neurology and Developmental Disabilities
- RS5318 (MPT) Neurological Physiotherapy I
- RS5304 (MPT) Human Development across Lifespan
- RS593 (MSc) Sensory and Motor Intervention for People with Developmental Disabilities

Department of Physical Therapy, School of Health and Rehabilitation Sciences, The Ohio State University, USA

- PHYSTHER 763.01 (DPT) Clinical Application in Pediatric Lecture: Problem Based Learning and Didactic
- PHYSTHER 763.02 (DPT) Clinical Application in Pediatric Laboratory

Sept 2009 – Aug 2014

Sept 2007 – Jun 2009

• PHYSTHER 785.01 (DPT) - Introduction to Research: Orthopedic Journal Club

國立陽明大學物理治療學系

Department of Physical Therapy, National Yang-Ming University, Taipei City, Taiwan

• Orthopedic Physical Therapy (BSc) - Orthopedic Laboratory

HONORS, AWARDS, AND FELLOWSHIPS 榮譽及獲獎

- 2024 年年輕學者研究獎
- 2021-2022 年 Essential Science Indicators, ESI 資料庫高引用次數全球前 1%之高被引論文
- 長庚大學 112 學年度優良教師教學獎
- Best Talented (Online Learning) Team Award & Best E-learning Project (Industry Specific) Award of 2023 LearnX® Awards at platinum rank (MOOC project entitled: *Interdisciplinary management for cardiopulmonary health and diseases Cardiac module and pulmonary module*)
- FHSS (Faculty of Health and Social Sciences) Summer Research Studentship 2019/20. (Role: Mentor)
- Bronze Award of poster presentation at the 11th PPCR (Pan Pacific Conference on Rehabilitation), Hong Kong, Nov. 17-18, 2018
- 3rd place of poster award at the 18th International Conference and Workshops of Early Intervention for Children with Developmental Delays (第十八屆兒童早期療育國際論文發表大會暨工作坊), Taichung, Taiwan, Nov 3-5, 2017
- 3rd place of poster award at the MnDRIVE (Minnesota's Discovery, Research and Innovation Economy) Brain Condition Retreat, May 22, 2017
- MnDRIVE Postdoctoral Fellowship in Neuromodulation, Minneapolis, Minnesota, Jun 2016 Jun 2017.
- Travel Award of the 8th Progress in Motor Control Meeting, Cincinnati, Ohio, USA, Jul 21-23, 2011.
- 2nd place award from Physical Therapy Association of Taiwan's student thesis competition Taichung city, Taiwan, 2008.

RESEACH GRANTS 研究計畫補助

國科會 - 延攬博士後研究人才 (Jan 2023 - Dec 2024) National Science and Technology Council, NSTC (# 113-2811-H-182 -002 -)

- 婦女長期暴露於生態威脅的影響:孕產婦心理健康、適應性行為、及嬰兒發展研究 Effects of long-term exposure to ecological threats in females: The maternal mental health, adaptive behavior, and infant outcome (MAI) study
- 指導教授 (Mentor) / \$ 953,820 NTD

國科會-性別科技計畫研究計畫 (Aug 2023 - Jul 2026)

National Science and Technology Council, NSTC (# 112-2629-H-182 -002 -SS3)

- 婦女長期暴露於生態威脅的影響:孕產婦心理健康、適應性行為、及嬰兒發展研究 Effects of long-term exposure to ecological threats in females: The maternal mental health, adaptive behavior, and infant outcome (MAI) study
- 計畫主持人 (Principal Investigator) / \$3629,000 NTD

國科會 - 大專學生研究計畫 (Jul 2023 - Feb 2024)

National Science and Technology Council, NSTC - Research Grant for University Students (# 112-2813-C-182-026-B)

- 學齡前兒童之動作發展與身體活動量及生活參與的相關性
- 指導教授 (Mentor) / \$48,000 NTD

長庚醫學研究計畫(院內計畫) (July 2023 - Jun 2024)

Chang Gung Memorial Hospital Research Program, CMRP

- 辨識學齡前自閉症譜系障礙兒童在跑步、雙腳跳躍、單腳跳躍及動作功能表現的缺失 Identifying motor deficits in running, jumping, and hopping and functional performance in preschool children with autism spectrum disorders
- 計畫主持人 (Principal Investigator) / \$618,418 NTD

義大醫院院內計畫 (July 2022 - Dec 2024)

E-Ta Hospital Research Program

- 自閉症譜系障礙兒童身體活動表現與功能發揮、健康相關生活品質、及參與之關係調查 Examining the relationship between performance of physical activity and functional ability, health-related quality of life, and participation in children with autism spectrum disorder
- 協同主持人 (Co-Investigator) / \$110,000 NTD

國科會(原科技部)-(新進人員)專題研究計畫 (Aug 2022 - Jul 2023)

Taiwan Ministry of Science and Technology, MOST (# 111-2314-B-182 -040 -)

 利用嬰兒不安動作作為早產兒自主踢腿、目標導向之上肢伸取、及爬行動作發展的早期 指標

Using fidgety movement as an early marker to predict the development of voluntary leg kicking, goal-directed arm reaching, and crawling movements in preterm infant

• 計畫主持人 (Principal Investigator) / \$790,000 NTD

科技部(原科技部) - (新進人員)專題研究計畫 (Jan 2022 - Apr 2023)

Taiwan Ministry of Science and Technology, MOST (#: 111-2314-B-182 -005 -)

- 透過嬰兒不安與踢腿動作的肌肉協同分析辨識未來步態及動作發展的前驅因子 Investigation of infant fidgety and kicking movements as precursors to inform gait and motor development through muscle synergy analysis
- 計畫主持人 (Principal Investigator) / \$650,000 NTD

香港大學教育資助委員會 - 傑出青年學者計劃 (Jan 2020 - Jan 2023)

University Grants Committee (Hong Kong) - Early Career Scheme (# 25215519)

- Clinically-based versus machine-learning enhanced video analysis of fidgety movements in infants with and without autism spectrum disorder
- 計畫主持人 (Principal Investigator) / \$343,034 HKD (Early termination at Jan 2021)

香港理工大學復健康復學系 (May 2018 - May 2021)

Departmental General Research Grant, Department of Rehabilitation Sciences, The Hong Kong Polytechnic University

• Neural activity changes after learning with the mobile paradigm task

• 計畫主持人 (Principal Investigator) / \$500,000 HKD

PUBLICATIONS 論文發表

Peer-Reviewed Articles

- Saffari M, Chen CY (co-first), Chen IH, Ruckwongpatr K, Griffiths MD, Potenza MN, Wang XL, Huang YT, Chen JS, Tsai CC, Lin CY. A comprehensive measure assessing different types of problematic use of the internet among Chinese adolescents: The Assessment of Criteria for Specific Internet-use Disorders (ACSID-11). Comprehensive Psychiatry. 2024 Oct:134:152517. Epub 2024 Jul 8. (IF:4.3, PSYCHIATRY, 49/276=17.76%)
- Ahorsu DK, Chen CY (co-first), Chen IH, Pakpour AH, Bevan N, Chen JS, Wang XL, Ko PJ, Griffiths MD, Lin CY. *The Perceived Weight Stigma Scale and Weight Self-Stigma Questionnaire: Rasch analysis, confirmatory factor analysis, and network analysis among Chinese adolescents.* Public Health. 2024 Sep 19:236:373-380. (IF:3.9, PUBLIC, ENVIRONMENTAL & OCCUPATIONAL HEALTH, 60/403=15%)
- Syu FY, Lin YL, Chien A, Chen CY, Hsieh BYT, Shih YF. Translation, Cross-Cultural Adaptation, and Validation of the Traditional Chinese Version of the VISA-P Questionnaire. Orthopaedic Journal of Sports Medicine. 2024 May; 12(5): 23259671241248165. (IF:2.4, ORTHOPEDICS, 36/136=26.47%)
- 4. Wang PJ, Wei H, Wang YY, Huang WP, Huang HJ, Wang YC, **Chen CY***. A preliminary report on the curriculum enhancement in pediatric physical therapy courses of school-based physical therapist in Taiwan. Formosa Journal of Physical Therapy. (Accepted)
- Chen CY, Lee KY, Fung XCC, Chen JK, Lai YC, Potenza MN, Chang KC, Fang CY, Pakpour AH, Lin CY. Problematic Use of Internet Associates with Poor Quality of Life via Psychological Distress in Individuals with ADHD. Psychology Research and Behavior Management. 2024 Feb 9:17:443-455. (IF:2.8, PSYCHOLOGY, CLINICAL, 48/180=26.67%)
- Chen IH, Chen CY, Liao XL, Chen XM, Zheng X, Tsai YC, Lin CY, Griffiths MD, Pakpour AH. Psychometric properties of the Depression, Anxiety, and Stress Scale (DASS-21) among different Chinese populations: A cross-sectional and longitudinal analysis. Acta Psychol (Amst). 2023 Sept 30:240:104042. Epub 2023 Sept 30
- Lee KY, Chen CY (co-first), Chen JK, Liu CC, Chang KC, Fung XCC, Chen JS, Kao YC, Potenza MN, Pakpour AH, Lin CY. *Exploring mediational roles for self-stigma in associations between types of problematic use of internet and psychological distress in youth with ADHD*. Research in Developmental Disabilities. 2023 Feb;133:104410. Epub 2023 Jan 3. (IF:2.9, EDUCATION, SPECIAL, 2/62=3.26%)
- Chen CY, Chen JS, Lin CY, Hsiao RC, Tsai CS, Yen CF. Difficulties in Managing Children's Learning among Caregivers of Children with Attention-Deficit/Hyperactivity Disorder during the COVID-19 Pandemic in Taiwan: Association with Worsened Behavioral and Emotional Symptoms. International Journal of Environmental Research and Public Health. 2022 Oct 22;19(21):13722. (2021 IF:4.614, PUBLIC, ENVIRONMENTAL & OCCUPATIONAL HEALTH, 45/182=24.73%)
- Guo X, He B, Lau KYS, Chan PPK, Liu R, Xie JJ, Ha SCW, Chen CY, Cheing GLY, Cheung RTH, Chan RHM, Cheung VCK. Age-Related Modifications of Muscle Synergies and Their Temporal Activations for Overground Walking. IEEE Transactions on Neural Systems and Rehabilitation Engineering. 2022;30:2700-2709. Epub 2022 Sept 26.(IF:4.8, REHABILITATION, 5/169=2.96%)

- Chung YC, Chen CY, Chang CM, Lin YL, Liao KK, Lin HC, Chen WY, Yang YR, Shih YF. Altered corticospinal excitability of scapular muscles in individuals with shoulder impingement syndrome. PLoS One. 2022 May 16;17(5):e0268533. (IF:2.9, MULTIDISCIPLINARY SCIENCES, 31/134=23.13%)
- Chen IH, Chen CY (co-corresponding), Zhao KY, Gamble JH, Lin CY, Griffiths MD, Pakpour AH. Psychometric evaluation of fear of COVID-19 Scale (FCV-19S) among Chinese primary and middle schoolteachers, and their students. Current Psychology. 2022 Jan 5;1-17. Epub 2022 Jan 05. (IF:2.5, PSYCHOLOGY, MULTIDISCIPLINARY, 58/218=26.61%)
- Chan PPK, Chen CY (co-first), Ayache H, Louie L, Lok A, Cheung N, Cheung RTH. Gait difference between children aged 9 to 12 with and without potential depressive mood. Gait & Posture. 2022 Jan;91:126-130. Epub 2021 Oct 9. (IF:2.2, ORTHOPEDICS, 42/136=30.88%)
- Chen IH, Chen CY (co-first), Liu CH, Ahorsu DK, Griffiths MD, Chen YP, Kuo YJ, Lin CY, Pakpour AH, Wang SM. Internet addiction and psychological distress among Chinese schoolchildren before and during the COVID-19 outbreak: A latent class analysis. Journal of Behavioral Addictions. 2021 Sept 15;10(3):731-746. (IF:6.6, PSYCHIATRY, 17/276=6.16%)
- Fung XCC, Siu AMH, Potenza MN, O'Brien KS, Latner JD, Chen CY, Chen IH, Lin CY. Problematic Use of Internet-Related Activities and Perceived Weight Stigma in Schoolchildren: A Longitudinal Study Across Different Epidemic Periods of COVID-19 in China. Frontiers in Psychiatry. 2021 May 24;12:675839. (IF:3.2, PSYCHIATRY, 88/276=31.88%)
- Liu WJ, Lin LF, Chiang SL, Lu LH, Chen CY, Lin CH. Impacts of Stroke on Muscle Perceptions and Relationships with the Motor and Functional Performance of the Lower Extremities. Sensors (Basel). 2021 Jul 11;21(14):4740. (IF:3.4, INSTRUMENTS & INSTRUMENTATION, 24/76=31.58%)
- Chen CY, Chen IH, Pakpour AH, Lin CY, Griffiths MD. Internet-Related Behaviors and Psychological Distress Among Schoolchildren During the COVID-19 School Hiatus. Cyberpsychology Behavior and Social Networking. 2021 Oct;24(10):654-663. Epub 2021 Apr 20. (IF:4.2, PSYCHOLOGY, SOCIAL, 9/76=11.84%)
- Chen CY, Chen IH, Hou WL, Potenza MN, O'Brien KS, Lin CY, Latner JD. The Relationship Between Children's Problematic Internet-related Behaviors and Psychological Distress During the Onset of the COVID-19 Pandemic: A Longitudinal Study. Journal of Addiction Medicine. 2022 Mar-Apr;16(2):e73-e80. Epub 2021 Mar 24. (IF:4.2, SUBSTANCE ABUSE, 5/55=9.09%)
- Chen IH, Chen CY, Pakpour AH, Griffiths. MD, Lin CY, Li. XD, Tsang HWH. Problematic internetrelated behaviors mediate the associations between levels of internet engagement and distress among schoolchildren during COVID-19 lockdown: A longitudinal structural equation modeling study. Journal of Behavioral Addictions. 2021 Feb 10;10(1):135-148. (IF:6.6, PSYCHIATRY, 17/276=6.16%)
- Chen CY, Chen IH, O'Brien KS, Latner JD, Lin CY. Psychological distress and internet-related behaviors between schoolchildren with and without overweight during the COVID-19 outbreak. International Journal of Obesity. 2021 Mar;45(3):677-686. Epub 2021 Jan 25. (IF:4.2, ENDOCRINOLOGY & METABOLISM, 40/186=21.51%)
- Chen CY, Harrison T, McNally M, Heathcock JC. Preliminary evidence of an association between spontaneous kicking and learning in infants between 3-4 months of age. Brazilian Journal of Physical Therapy. 2020 Sept 26;S1413-3555(19)30751-8. Epub 2020 Sep 26. (IF:3.1, REHABILITATION, 13/169=7.69%)

- Chen IH, Ahorsu DK, Pakpour AH, Griffiths MD, Lin CY^{*}, Chen CY. Psychometric Properties of Three Simplified Chinese Online-Related Addictive Behavior Instruments Among Mainland Chinese Primary School Students. Frontiers in Psychiatry. 2020 Sep 3:11:875. Epub 2020 Sept 3. (IF:3.2, PSYCHIATRY, 88/276=31.88%)
- 22. Cheng VCK, Cheung BMF, Zhang JH, Chan ZYS, Ha SCW, Chen CY, Cheung RTH. *Plasticity of muscle synergies through fractionation and merging during development and training of human runners*. Nature Communications. 2020 Aug 31;11(1):4356. (IF:14.7, MULTIDISCIPLINARY SCIENCES, 8/134=5.97%)
- 23. Chen IH, Chen CY, Pakpour AH, Griffiths MD, Lin CY. Internet-Related Behaviors and Psychological Distress Among Schoolchildren During COVID-19 School Suspension (Letter To the Editor). Journal of the American Academy of Child and Adolescent Psychiatry. 2020 Oct;59(10):1099-1102.e1. Epub 2020 Jun 29. (IF:9.2, PSYCHIATRY, 8/276=2.90%)
- 24. Wei RXY, Chan ZYS, Zhang JH, Shum GL, **Chen CY**^{*}, Cheung RTH. *Difference in the running biomechanics between preschoolers and adults*. Brazilian Journal of Physical Therapy. 2021 Mar-Apr;25(2):162-167. Epub 2020 May 26. (IF:3.1, REHABILITATION, 13/169=7.69%)
- 25. Lee SC, Wu LC, Chiang SL, Lu LH, Chen CY, Lin CH, Ni CH, Lin CH. Validating the capability for measuring age-related changes in grip-force strength using a digital hand-held dynamometer in healthy young and elderly adults. BioMed Research International. 2020 Apr 20:2020:6936879. (IF:2.6, MEDICINE, RESEARCH & EXPERIMENTAL, 99/189=52.38%)
- 26. Rich TL, Nemanich S, Chen CY, Sutter EN, Feyma T, Krach LE, Gillick BT^{*}. Ipsilateral Corticospinal Tract Excitability Contributes to the Severity of Mirror Movements in Unilateral Cerebral Palsy: A Case Series. Clinical EEG and neuroscience. 2020 May;51(3):185-190. Epub 2020 Jan 8. (IF:1.6, PSYCHOLOGY, 59/92=64.13%)
- Chien CW^{*}, Cheung P, Chen CY. The Relationship between Sleep Duration and Participation in Home, School, and Community Activities Among School-Aged Children. Frontiers in Neuroscience. 2019 Aug 14;13:860. (IF:3.2, NEUROSCIENCES, 128/310=41.29%)
- 28. Nemanich S, Chen CY, Chen M, Zorn E, Mueller B, Peyton C, Elison J, Stinear J, Rao R, Georgieff M, Men J, Rudser K, Gillick B. Safety and feasibility of transcranial magnetic stimulation as an exploratory assessment of corticospinal connectivity in infants after perinatal brain injury: an observational study. Physical Therapy. 2019 Jun 1;99(6):689-700. (IF:3.5, REHABILITATION, 10/169=5.92%)
- Nemanich ST, Rich TL, Chen CY, Menk J, Rudser K, Chen M, Meekins G, Gillick BT. Influence of Combined Transcranial Direct Current Stimulation and Motor Training on Corticospinal Excitability in Children With Unilateral Cerebral Palsy. Frontiers in Human Neuroscience. 2019 Apr 24;13:137. (IF:2.4, PSYCHOLOGY, 36/92=39.13%)
- Keller-Ross M, Chantigian D, Rich T, Chen M, Chen CY, Gillick BT. Stability of the cardiovascular response during single-pulse TMS in perinatal stroke (Letter To the Editor). Brain Stimulation. 2019 Mar - Apr;12(2):371-373. (IF:7.6, CLINICAL NEUROLOGY, 16/277=5.78%)
- Harrison T, Chen CY, Phyllis S, Brown R, Heathcock JC. Neonatal skin-to-skin contact: Implications for learning and autonomic nervous system function in infants with congenital heart disease. Biological Research for Nursing. 2019 May;21(3):296-306. Epub 2019 Feb 5. (IF:1.9, NURSING, 67/191=35.08%)
- 32. Pakpour AH, Chen CY, Lin CY, Strong C, Tsai MC, Lin YC. The relationship between children's overweight and quality of life: A comparison of Sizing Me Up, PedsQL and Kid-KINDL. International

Journal of Clinical and Health Psychology. 2019 Jan;19(1):49-56. (IF:5.3, PSYCHOLOGY, CLINICAL, 9/180=5%)

- 33. Lixandrão MC, Stinear JW, Rich T, Chen CY, Feyma T, Meekins GD, Gillick BT^{*}. EMG breakthrough during cortical silent period in congenital hemiparesis: A descriptive case series. Brazilian Journal of Physical Therapy. 2020 Jan - Feb;24(1):20-29. Epub 2018 Nov 22. (IF:3.1, REHABILITATION, 13/169=7.69%)
- 34. Gillick B, Rich T, Nemanich S, Chen CY, Menk J, Mueller B, Chen M, Ward M, Meekins G, Feyma T, Krach L, Rudser K. *Transcranial direct current stimulation and constraint-induced therapy in cerebral palsy: A randomized, blinded, sham-controlled clinical trial.* European Journal of Paediatric Neurology. 2018 May;22(3):358-368. (IF:2.3, PEDIATRICS, 53/186=28.49%)
- Chen CY*, McGee C, Rich T, Prudente C, Gillick B. Reference Values of Intrinsic Muscle Strength of the Hand of Adolescents and Young Adults. Journal of Hand Therapy. 2018 Jul - Sept;31(3):348-356. Epub 2017 Aug 12. (IF:2.1, REHABILITATION, 40/169=23.67%)
- 36. Chen CY, Georgieff M, Elison J, Chen M, Mueller B, Stinear J, Rao R, Rudser K, Gillick B. Understanding Brain Reorganization in Infants with Perinatal Stroke through Neuroexcitability and Neuroimaging: Study Protocol. *Pediatric Physical Therapy*. 2017 Apr;29(2):173-178. (IF:1.3, PEDIATRICS, 107/186=57.53%)
- 37. Chen CY, Rich T, Cassidy J, Gillick B. Corticospinal Excitability in Children with Congenital Hemiparesis. *Brain Sciences*. 2016 Oct 20;6(4):49. (IF:2.7, NEUROSCIENCES, 158/310=50.97%)
- 38. Chen CY, Harrison T, Heathcock J. Infants with complex congenital heart diseases show poor short-term memory in the mobile paradigm at 3 months of age. *Infant Behavioral and Development*. 2015 Aug;40:12-9.
- 39. Chen CY, Tafone S, Lo W, Heathcock JC. Perinatal stroke causes abnormal trajectory and laterality in reaching during early infancy. *Research in Developmental Disabilities*. 2015 Mar;38:301-8. (IF:2.9, EDUCATION, SPECIAL, 2/62=3.23%)
- 40. Chen CY, Lo WD, Heathcock JC. Neonatal stroke causes poor midline motor behaviors and poor fine and gross motor skills during early infancy. *Research in Developmental Disabilities*. 2013 Mar;34(3):1011-7. (IF:2.9, EDUCATION, SPECIAL, 2/62=3.23%)
- 41. Shih YF^{*}, **Chen CY**, Chen WY, Lin HC. Lower extremity kinematics in children with and without flexible flatfoot: a comparative study. *BMC Musculoskeletal Disorders*. 2012 Mar 2;13:31. (IF:2.2, ORTHOPEDICS, 42/136=30.88%)
- Chen YS, Lin CY, <u>Chen CY</u>, Shih YF, Lee HC, Chen WY. Systemic Review and Meta-Analysis: Intrinsic Factors for Ankle Sprains in Athletes. Formosan Journal of Physical Therapy. 2008;33(1): 1-13.

Conference Paper

1. Guo X, Zhang J, Cheung RTH, Chan RHM, <u>Chen CY</u>. Right Temporal Oscillations of Infants in Relation to Contingent Learning. 42nd Annual International Conferences of the IEEE Engineering in Medicine and Biology Society in conjunction with the 43rd Annual Conference of the Canadian Medical and Biological Engineering Societ, July 20-24

INVITED SPEAKER 受邀演講

- 1. 國立陽明交通大學物理治療暨輔助科技研究所。When pediatric physical therapy meets biomechanics and engineering. (Oct 16, 2023)
- 2. 國立清華大學,工業工程與工程管理學系。When pediatric physical therapy meets biomechanics and engineering. (Nov 25, 2021)
- 3. 第22 屆發展遲緩兒童早期療育-國際論文發表大會暨以家庭為中心工作坊。 克服資源不均:利 用動態影像動作分析辨認嬰兒動作之遠端評估應用 (Nov 21, 2021)
- 4. 15th World Congress on Long Term Care in Chinese Communities. Cum 25th Annual Congress of Gerontology & 7th Cross-border Elderly Care Seminar. 臺灣推動長照輔具及居家無障礙環境改善服務系統發展、現況與展望。(Nov 30, 2018)
- 5. 慈濟大學物理治療學系。 Early Outcomes in Infants at Risk for Long-term Developmental Impairments: Neuroplasticity, Assessment, and Intervention. (Oct 28, 2016)
- 6. 國立台灣大學物理治療學系。Early Outcomes in Infants at Risk for Long-term Developmental Impairments: Neuroplasticity, Assessment, and Intervention. (Nov 4, 2015)
- 7. 長庚大學物理治療學系暨復健科學研究所。Early Outcomes in Infants at Risk for Long-term Developmental Impairments: Neuroplasticity, Assessment, and Intervention. (Nov 2, 2015)
- 8. 中山醫學大學物理治療學系暨碩士班。 Early Outcomes in Infants at Risk for Long-term Developmental Impairments: Neuroplasticity, Assessment, and Intervention. (Oct 28, 2015)
- 9. 國立陽明交通大學物理治療暨輔助科技研究所。 Early Outcomes in Infants at Risk for Long-term Developmental Impairments: Neuroplasticity, Assessment, and Intervention. (Oct 26, 2015)

PLATFORM PRESENTATIONS 研討會口頭報告

- 1. Chen CY, Harrison TM, Heathcock JC. *Altered autonomic function in the mobile paradigm task in three-month-old infants with complex congenital heart disease*. Platform presentation at annual Combined Section Meetings (CSM) of American Physical Therapy Association. February 5, 2015, Indianapolis, Illinois. USA.
- 2. Chen CY, Heathcock JC, Harrison TM. *Impaired Performance during the Mobile Paradigm in Infants with Complex Congenital Heart Defects at Three Months.* Platform presentation at annual Combined Section Meetings (CSM) of American Physical Therapy Association. February 5, 2014, Las Vegas, Nevada, USA.
- 3. Chen CY, Heathcock JC, Harrison TM. *Parasympathetic Activities during the Mobile Paradigm in Infants at Three Months.* Oral presentation at Edward F. Hayes Graduate Research Forum. March 1, 2013, Columbus, Ohio, USA.
- 4. Chen CY, Mrowzinsi S, Heathcock JC. *Early Compensatory Reaching Movements in Full-Term Infants with and without Neonatal Stroke*. Platform presentation at annual Combined Section Meetings (CSM) of American Physical Therapy Association. January 23, 2013, San Francisco, California, USA.
- 5. Chen CY, Mrowzinsi S, Heathcock JC. *The Development of Midline Movements in Infants with and without Neonatal Stroke*. Platform presentation at annual Combined Section Meetings (CSM) of American Physical Therapy Association. February 9, 2012 Chicago, Illinois, USA.
- 6. **Chen CY**, Chen WY, Shih YF. *Effect of insole application on lower extremity kinematics in children with flexible flatfoot.* Oral presentation in the Physical Association of Taiwan. 2008, Taichung City, Taiwan.

POSTER PRESENTATIONS 研討會海報發表

- Chen CY. Lin, JY, Chen, LL, Huang PC, Cheung VCK. Investigation of infant fidgety movements as precursors to inform gait development through muscle synergy analysis. The European Academy of Childhood Disability (EACD) 36th Meeting, May 29 – Jun 01, 2024. Bruges, Belgium.
- 1. Chen CY, Peyton C, Chan R, Cheung R. Predicting Neurodevelopmental Disorders in Infants Utilizing Video-based Fidgety Movements (FMs) Analysis with Machine Learning Algorithm. International Society on Early Intervention (ISEI) Conference 2019. Jun. 25-28, 2019. Sydney, Australia.
- Chen CY, McNally MP, Harrison TD, Heathcock JC. Learning though spontaneous kicking: The potential influence of joint coordination. 11th Pan-Pacific Conference on Rehabilitation. Nov. 17-18, 2018. Hong Kong.
- Chen CY, Nemanich S, Chen M, Zorn E, Mueller B, Elison J, Stinear J, Rao R, Georgieff M, Gillick B. Assessing neurophysiologic responses using transcranial magnetic stimulation in infants with perinatal brain injuries: an observational study. 11th Pan-Pacific Conference on Rehabilitation. Nov. 17-18, 2018. Hong Kong.
- 4. Nemanich S, Chen CY, Chen Mo, Peyton C, Rao R, Stinear J, Georgieff M, Gillick B. *Non-invasive brain stimulation in infants at high risk for cerebral palsy: a case series.* American Academy Cerebral Palsy Developmental Medicine. Oct 9-13, 2018. Cincinnati, Ohio, USA.
- 5. Chen CY, Chen M, Stinear J, Elison J, Nemanich S, Peyton C, Mueller B, Georgieff M, Rao R, Rudser K, Gillick B. *Predicting motor outcomes in infants with brain hemorrhage using transcranial magnetic stimulation with brain imaging and the general movements assessment: Two case reports*.
- 6. 第十八屆兒童早期療育國際論文發表大會暨工作坊。Nov 3-5, 2017
- 7. Gillick B. Rich T. Chen CY, Nemanich S, Rudser K, Menk J, Ward M, Gregg K, Feyma T. Combined transcranial direct current stimulation and constraint-induced movement therapy intervention in children with unilateral cerebral palsy: Behavioral and neurophysiological findings from a randomized clinical trial. American Academy Cerebral Palsy Developmental Medicine. Sept. 13-16, 2017. Montreal, Quebec, Canada.
- 8. Chen CY, Gillick B. Perinatal Stroke: Understanding Brain Reorganization through Infant Neuroimaging and Measures of Neuro-excitability. MnDrive Brain Conditions Retreat 2017. May 22, 2017. Minneapolis, Minnesota, USA
- Chen CY, Chen M, Georgieff M, Elison J, Nemanich S, Mueller B, Stinear J, Rao R, Rudser K, Gillick B. Feasibility of Performing TMS assessment of Infants with Perinatal Stroke by Incorporating Stereotactic Neuronavigation with EMG Intensity Threshold-Triggered TMS. Neuromodulation Symposium 2017. Apr 14, 2017. Minneapolis, Minnesota, USA.
- 10. Chantigian DP, Rich T, Chen CY, Lixandrão M, Gillick BT, Keller-Ross ML. *The Effect of Transcranial Magnetic Stimulation on the Autonomic Nervous System in Pediatric Stroke*. Neuromodulation Symposium 2017. Apr 14, 2017. Minneapolis, Minnesota, USA.
- 11. Nemanich S, Rich T, Chen CY, Lixandrão M, Meekins G, Feyma T, Ward T, Krach L, Gillick B. Changes in cortical excitability following a combined transcranial direct current stimulation and rehabilitation intervention in children with unilateral cerebral palsy. Neuromodulation Symposium 2017. Apr 14, 2017. Minneapolis, Minnesota, USA.
- 12. Rich T, Chen CY, Feyma T, Meekins G, Ward M, Krach L, Gillick B. Child and caregiver

perspectives of a combined brain stimulation and constraint-induced movement therapy trial. American Occupational Therapy Association Conference. Mar 30-Apr 2, 2017. Philadelphia, Pennsylvania, USA.

- 13. Chen CY, Georgieff M, Elison J, Chen M, Mueller B, Rao R, Rudser K, Stinear J, Gillick B. Understanding Brain Reorganization through Neuroexcitability and Neuroimaging in Infant with Perinatal Stroke: Modifications from Adult to Pediatric Protocols. Institute for Engineering in Medicine (IEM) Annual Conference and Retreat. Sept 26, 2016. Minneapolis, Minnesota, USA.
- 14. Lixandrão M, Stinear J, Meekins G, Feyma T, Rich T, Chen CY, Gillick B. *Ipsilesional and Contralesional Cortical Silent Period in Congenital Hemiparesis: Preliminary Reports.* Institute for Engineering in Medicine (IEM) Annual Conference and Retreat. Sept 26, 2016. Minneapolis, Minnesota, USA.
- 15. Chen CY, Georgieff M, Elison J, Chen M, Mueller B, Rao R, Rudser K, Stinear J, Gillick B. Perinatal Stroke: Understanding Brain Reorganization through Infant Neuroexcitability and Neuroimaging. American Academy Cerebral Palsy Developmental Medicine. Sept 22, 2016. Hollywood, Florida, USA.
- 16. Rich TR, Keller-Ross M, Chantigian1 D, Chen CY, Meekins G, Feyma T, Krach L, Gillick BT. Autonomic nervous system monitoring during transcranial magnetic stimulation: Making a difference in monitoring responses and adverse events in children with hemiparetic cerebral palsy. American Academy Cerebral Palsy Developmental Medicine. Sept 22, 2016. Hollywood, Florida, USA.
- 17. Lixandrão M, Stinear J, Meekins G, Feyma T, Rich T, Chen CY, Gillick B. *Ipsilesional and Contralesional Cortical Silent Period in Congenital Hemiparesis: Preliminary Reports.* 6th International Conference on Transcranial Brain Stimulation. Sept 7-10, 2016. Göttingen, Germany.
- 18. Chen CY, Chen Mo, Gillick B. Identifying Optimal Electromyography Responses in Infants with Perinatal Stroke: The Foundation for a Novel Transcranial Magnetic Stimulation Protocol. Neuromodulation Symposium 2016. Apr 15, 2016. Minneapolis, Minnesota, USA.
- 19. Lixandrão M, Rich T, Chen CY, Gillick B. *Bilateral cortical silent period evoked by transcranial magnetic stimulation in a child with perinatal stroke: understanding cortical inhibitory circuits.* Neuromodulation Symposium 2016. Apr 15, 2016. Minneapolis, Minnesota, USA.
- 20. Chen CY, Bush K, Lo W, Chaudhari A, McNally M, Heathcock J. *Repetitive Transcranial Magnetic Stimulation in Children with Hemiparesis: A Case Series.* Neuromodulation Symposium 2015. Apr 17, 2015. Minneapolis, Minnesota, USA.
- 21. Chen CY, Mrowzinsi S, Heathcock JC. Arm and Hand Control during the Emergence of Reaching in Infants with Neonatal Stroke. Poster presentation at the conference of Progress in Motor Control (PMC) IV. Jul 16, 2013. Montreal, Canada.
- 22. Chen CY, Mrowzinsi S, Heathcock JC. *Midline Toy Exploration in Infants with Neonatal Stroke*. Poster presentation at the International Society of Infant Studies. Jun 7, 2012. Minneapolis, Minnesota, USA.
- 23. Chen CY, Mrowzinsi S, Heathcock JC. *Reaching and Grasping Behaviors in Infants with and without Neonatal Stroke*. Poster presentation at the conference of Progress in Motor Control (PMC) VIII. Jul 21, 2011. Cincinnati, Ohio, USA.
- 24. Chen CY, Heathcock JC. Symmetrical Postures and Midline Movements Are Less Common in Infants with Neonatal Stroke. Poster presentation at annual Combined Section Meetings (CSM) of American Physical Therapy Association. Feb 19, 2011. New Orleans, Louisiana, USA.
- 25. Chen CY, Heathcock JC. Symmetrical Postures in Infants with and Without Neonatal Stroke. Poster

presentation at the International Society of infant Studies. Mar 12, 2010. Baltimore, Maryland, USA.

STUDENTS CONFERENCE PRESENTATIONS 指導學生參與研討會報告

- 2. 黃珮淳:海報報告。Comparing Gross Motor Performance and Biomechanical Deficits in Selected Motor Tasks among Preschoolers with and without Autism Spectrum Disorder. The European Academy of Childhood Disability (EACD) 36th Meeting, Bruges, Belgium (2024/5/29-2023/6/1)
- 3. 吳心好:口頭報告。自閉症兒童身體活動量與生活品質的關係:系統性回顧。物理治療學會 第八十七次學術論文研討會(2024/03/23)
- 黃珮淳:海報報告。比較學齡前自閉症譜系障礙兒童的粗大動作表現及辨識特定動作技巧的 生物力學缺失。第二十四屆兒童發展早期療育國際論文發表大會 (2023/11/04)
- 黃珮淳:口頭報告。辨識學齡前自閉症譜系障礙兒童在跑步、雙腳跳躍、單腳跳躍及動作功 能表現的缺失。物理治療學會第八十五次學術論文研討會(2024/03/18)
- 6. 陳禮林:口頭報告。即時回饋與影片回饋對於降低女性跳躍落地生物力學危險因子之效益: 系統性回顧及統合分析。物理治療學會第八十四次學術論文研討會 (2024/09/12)

LICENSURE & CERTIFICATION 證照

- 中華民國物理治療師執照(2006-至今)
- 中華民國助理教授證書 (2021 至今)
- Certification of advanced course of Prechtl's Method on the Qualitative Assessment of General Movements, 2019
- Certification of basic course of Prechtl's Method on the Qualitative Assessment of General Movements, 2015

SERVICES 校外服務

- 臺灣復健工程暨輔具科技學會 學術教育委員會副主委 (2021- 至今)
- 社團法人台灣國際健康功能與身心障礙分類系統研究學會 學術委員會委員 (2022 至今)
- 2023 第 13 次 ICF 學術研討會 學術委員會委員
- 2023 臺灣復健工程暨輔具科技學會研討會 總幹事、座長
- 2022 (原訂 2020 年)世界物理治療聯盟亞西太平洋區域會議 科學委員會委員
- 2021 臺灣復健工程暨輔具科技學會研討會 主持人
- 2021 International Alliance of Childhood Disability, IAACD 國際世界腦麻日 (CP Day) 台灣地區 講座 - 主持人
- 國立成功大學健康照護研究所 授課
- 香港理工大學復健康復學系(Department of Physical Therapy, The Hong Kong Polytechnic University, Hong Kong) 授課
- MnDRIVE Brain Conditions Research at the Minnesota State Fair, 2016
- Brain Bee MnDRIVE Challenge Development, 2016

ADDITIONAL INFORMATION 其他資訊

Manuscript Review

• Frontiers in Neuroscience

- Frontiers in Pediatrics
- Gait & Posture
- JMIR mHealth and uHealth
- Formosa Journal of Medicine 台灣醫學
- Formosa of Physical Therapy 物理治療
- Journal of Child Neurology
- Hong Kong Physiotherapy Journal
- BMJ open
- PLOS ONE
- Journal of Child Neurology
- JAMA Pediatrics
- Journal of Neonatal-Perinatal Medicine
- Frontiers Neuroscience
- Disability and Rehabilitation
- Social Health and Behavior

Book Review

• Physical Therapy for Children with Cerebral Palsy: An Evidence-Based Approach. May-June, 2015.