The Mental Health Research Centre (MHRC) is a constituent research unit established under the PolyU Academy for Interdisciplinary Research (PAIR) at The Hong Kong Polytechnic University. MHRC aims to become a leading centre for research in mental health and promotion of mental well-being. We strive to achieve excellence in our research endeavours, train the next generation of scientists and health professionals, and provide a platform connecting a diverse range of stakeholders for exchange and collaborations.

MHRC focuses on five key research themes that drive our pursuit of knowledge and innovation in the field of mental health. These themes encompass basic and translational neuroscience of mental health, neuroimaging studies and innovative cognitive rehabilitation of mental disorders, behavioural and psychiatric rehabilitation, psychosocial and cultural aspects of mental health, as well as service use and social policy of mental health.

Our work spans three robust working arms: basic science, intervention development, and social policy for mental health. MHRC values interdisciplinary collaboration, and our research team comprises experts from a variety of fields, including biomedical science, neuroscience, rehabilitation sciences, psychology, psychiatry, sociology, social work, public health, nursing, and cutting-edge domains, such as virtual reality technology and artificial intelligence. This interdisciplinary strategy enables us to conduct research on mental health from a holistic and integrative perspective and to address the challenges in mental health research and practice.

MHRC is committed to addressing gaps in existing mental health knowledge, treatment, services, and policies at local, regional and global levels. We actively explore technology transfer and crosssectoral collaborations, aiming to translate our research findings into practical solutions that can be implemented by clinicians, engineers, service providers, NGOs, government agencies, ultimately benefiting the general public.

I cordially invite you to explore our website to learn more about our research themes and research impact. We welcome engagement and collaborations with members from different sectors for joint efforts in developing evidencebased interventions that can make a real and positive difference in people's lives.

Together, we can create a future where mental health is understood, valued, and prioritised, leading to a healthier, more resilient society.

香港理工大學(理大)精神健康研究中心 (MHRC)為理大高等研究院轄下的研究單位。 MHRC矢志成為精神健康研究及促進心理健康的 領先中心。我們致力在精神健康研究中取得卓越 成果,培訓下一代科研人員和醫護專業人員, 以及為社會上廣大持份者提供交流和合作 橋梁。

MHRC專注五個重點研究主題,引領我 們在精神健康領域尋求知識及創新。研 究主題包括「心理健康的基礎腦神經 科學及轉化」、「精神障礙的神經影像 學研究與創新的認知康復」、「行為和 精神康復」、「社會心理和文化對精神 健康的影響」,以及「精神健康服務與 社會政策」。

我們的工作涵蓋精神健康的基礎科學、干 預措施設計及社會政策三大分支。MHRC 重視交叉學科合作,我們的科研團隊由來自 多個學科範疇的專家組成,其中包括生物醫學、 神經科學、康復治療科學、心理學、精神科、社 會學、社會工作、公共衛生、護理學,以及虛擬 實境和人工智能等尖端技術領域。這種交叉學科 策略使我們能夠以全面和綜合的角度研究精神健 康,應對精神健康研究和行動實踐中的難題。

MHRC致力在本地、區域以至國際層面上,填補 當今精神健康的知識、治療、服務和政策的缺 口。我們積極探索技術轉移和跨界別合作,務求 將研究成果轉化為實際解決方案,供臨床醫生、 工程師、服務提供者、非政府機構和政府組織使 用,最終為社會大眾帶來裨益。

我誠意邀請您瀏覽我們的網站,了解有關本中心 的研究主題和科研影響。我們歡迎各界人士與本 中心聯絡和合作,共同努力開發以實證為本的干 預措施,為人們生活帶來實質且正面的影響。

· 齊來締造一個更健康、更具心理韌性的社會, 讓 我們一起讓精神健康得以理解、珍視和給予優先 重視。



Management Committee 管理委員會



Department of **Applied Social Sciences** 應用社會科學系副系主任及教授 **Associate Director of MHRC** 精神健康研究中心副主任 Professor Department of **Rehabilitation Sciences** 康復治療科學系教授



Chair Professor Department of **Rehabilitation Sciences** 康復治療科學系講座教授

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Associate Dean, Faculty of Health and Social Sciences 醫療及社會科學院副院長

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Associate Professor School of Nursing 護理學院副教授







Mental Health Research Centre 精神健康研究中心

MHRC drives interdisciplinary research, knowledge exchange and technology transfer, to deepen understanding about mental health, develop evidence-based interventions and raise public awareness of mental health, making positive contributions to the promotion, prevention and treatment interventions for mental health.

精神健康研究中心致力透過推動交叉學科研究、知識交流及技術轉移,以增進對精神健康的了解,制定實證 為本的干預措施,提高公眾對精神健康的關注,為精神健康的推廣、預防和治療作出積極貢獻。

Major Research Focus Areas 主要研究領域

Vision

To become a leading centre for research in mental health and promotion of mental well-being.

Mission

- To set up a research hub integrating basic and translational animal models, neuroimaging and neurophysiological techniques to explore the neurobiological underpinnings of mental illnesses, neuro-cognitive mechanisms and psychosocial functioning.
- To conduct high-impact research by translating findings to real-life screening, preventive measures and interventions for populations locally, regionally and globaly.
- To advocate "no health without mental health" paradigm shift, educate people about promoting active mental health.
- To integrate social and cultural factors in better understanding the impact of environmental and social determinants on help-seeking and social functioning in people with mental illnesses.
- To partner actively with key stake-holders (researchers, scientists, engineers, clinicians, service providers, government and nongovernment organisations) to provide innovative and sustainable solutions to mental health issues, reduce risks of mental disorders, and shape and inform policy making in the long run.

願景

成為領先的精神健康研究和促進心理健康的中心。

使命

- 建立一個集基礎和轉化動物模型、神經影像學和 神經生理學技術於一體的研究中心,以探索精神 疾病的神經生物學基礎、神經認知機制和社會心 理功能。
- 通過將研究結果轉化為針對本地、區域和全球人 群的生活篩查、預防措施和干預措施,開展影響 深读的研究。
- 倡導"沒有心理健康就沒有健康"的範式轉變,教 育人們促進積極的心理健康。
- 整合社會和文化因素,以更好地了解環境和社會 的決定因素對精神疾病患者尋求幫助和社會功能 的影響。
- 與主要持份者(研究人員、科學家、工程師、臨 床醫生、服務提供者、政府和非政府組織)積極 合作,為精神健康問題提供創新和可持續的解決 方案,盡可能減少精神疾病的風險,並製定和提 出長遠的政策。





Basic and translational neuroscience of mental health 基礎腦神經科學及轉化

Psychobiological basis of neurorehabilitation, translational models of neuropsychiatric conditions, underlying mechanisms and biomarkers of environmental and lifestyle influence in mental health, including physical exerciseinduced brain plasticity, and psychiatric impacts of early life adversities.

Positive Impact of MHRC 精神健康研究中心帶來的正面影響

MHRC houses local, regional, and international researchers dedicated to establishing and promoting rigorous, critical studies of mental health. We are committed to providing the broad evidence-base necessary to enhance effective, impactful mental health research and clinical practice, and bring about psychosocial and cultural impact, policy change and development in all aspects of mental health. Specifically, MHRC

- identifies how biological, psychological and social functioning are interacting – detecting trends and social determinants in mental health.
- helps understand how to best promote mental health, reducing the burden of mental illness in our population.
- utilizes big data in understanding whether the mental health services and resources that are available meet mental health needs.
- establishes evidence for public mental health policies and effectiveness of programmes.

精神健康研究中心擁有本地、區域和國際的研究人 員,致力於建立和促進對精神健康進行嚴格及批判 性的研究。我們亦致力於提供必要的廣泛證據基 礎,以加強有效、有影響力的精神健康研究和臨床 實踐,並在精神健康的各個方面帶來社會心理和文 化影響、政策改變和發展。具體來說,精神健康研 究中心能

- 確定生物、心理和社會功能如何相互作用 —— 檢測精神健康的趨勢和社會決定因素。
- 幫助了解如何最有效地促進精神健康,減輕市民 的心理疾病負擔。
- 利用大數據了解可用的精神健康服務和資源是否 滿足精神健康需求。
- 為公共精神健康政策和項目建立有效性的證據。



Neuroimaging studies and innovative cognitive rehabilitation of mental disorders 精神障礙的神經影像學研究與創新的認知康復

神經科學為本的認知康復及社會認知,情緒障礙的神經 Neuroscience of cognitive rehabilitation, social 生物學,非侵入性腦刺激, PET和MRI成像, fNIRS和 cognition, neurobiology of mood disorders, non- invasive brain stimulation, neuroimaging EEG的神經心理學評估,混合現實和人工智慧之使用。 using PET and MRI, neuropsychological assessment using fNIRS and EEG, mix-reality and artificial intelligence.





腦神經康復的心理生物學基礎,精神疾病的轉化模 型, 環境及生活方式與心理潛在機制和生物標誌物關 係,包括活動誘導大腦的可塑性,以及早期生活逆境 對精神健康的影響。





3 Behavioural and psychiatric rehabilitation 行為和精神序復 行為和精神康復

Neuropsychiatric and vocational rehabilitation programmes, psychophysiology of mind-body interventions, stress management, mindfulness-based interventions, neuroimaging in physical and mindfulness exercise.

精神健康和職業康復計劃、身心干預的心理生理學、 壓力管理、基於正念的干預、身體和正念鍛煉中的神 經影像學。



Psychosocial and cultural aspects of mental health 4 社會心理和文化對精神健康的影響

Social and cultural influences on mental health, stigma and discrimination related to mental illness, psychosocial interventions for mental disorders, social and cultural factors in help-seeking behaviour for mental health issues, cultural diversity and mental health.

社會和文化對心理健康的影響、與精神疾病相關的污 名和歧視、精神疾病的社會心理干預、尋求心理健康 問題幫助的社會和文化因素、文化多樣性與心理健 康。



5



Service use and social policy of mental health 精神健康服務與社會政策

Mental health help-seeking and service use, well-being of children and adolescents, social capital and resilience, social policy and social service system.

精神健康求助和服務使用、兒童和青少年福祉、社會 資本和復原力、社會政策和社會服務體系。



Key Achievements 重大成果

*The summary below is based on the activities and research developments taking place during the period between October 2021 and May 2024.

*以下撮要根據 2021 年 10 月至 2024 年 5 月期間進行的活動和科研發展。

Donation and Funding

Since its establishment in October 2021, MHRC has provided three rounds of seed funds totalling HK\$ 20.2 million (including HK\$ 11.2 million from MHRC and HK \$9.0 million in matching funds from home departments) to support 22 research projects led by members. MHRC internal members have received multiple external donations and grants, totalling more than HK\$ 169.7 million, supporting the Centre to carry out innovative research projects and advance the development of mental health research.

Membership

MHRC currently has 96 members in total, including researchers and academics coming from PolyU and other universities in Hong Kong and other countries, as well as external organisations. Members come from a range of disciplines and contribute professional knowledge and valuable support that enable interdisciplinary, collaborative projects at the Centre.

Awards and Honours

MHRC members have received a total of 38 awards at local, regional or international levels, for their research excellence. The Centre is dedicated to bringing together world-renowned academics and outstanding research talents for impactful research in mental health.

Research Reputation

MHRC has a total of 56 articles published in prestigious academic journals. MHRC members strive to disseminate their findings to research community and share their research and professional views in the mass media, consolidating and enhancing the Centre's international research reputation in the academia and society.

Knowledge Exchange

MHRC has held a total of 19 knowledge exchange events including conferences, seminars and workshops, which have attracted a total of over 18,000 attendees from 24 countries and a total of online viewing audience of over 15,800 to watch the live broadcast on multiple social media platforms.

捐贈和資助

自2021年10月成立至今,MHRC已提供總額逾2,020 萬港元的三輪種子基金(包括MHRC的1,120萬港元 及所屬學系的900萬港元的配套基金),以資助由成 員帶領的22個研究項目。MHRC校內成員獲得大量 外界捐贈和科研資金,總額逾 1.697 億港元,支持 中心進行創新研究項目,推動精神健康研究發展。

成員數目

MHRC目前共有96名成員,當中包括來自理大、本 地其他大學及海外大學的科研人員和學者,以及外 界機構。成員來自多個學科領域,貢獻專業知識及 給予極大支持,促進中心的交叉學科合作項目。

獎項及殊榮

MHRC成員至今共獲得 38 項本地、區域性或國際性 的獎項,其科研卓越備受肯定。中心致力匯聚世界 知名學者及傑出科研人才,開展具影響力的精神健 康研究。

研究聲譽

MHRC至今共有 56 篇論文獲刊於著名學術期刊。 MHRC 成員致力向科研社群傳播他們的研究成果, 並於大眾媒體分享他們的研究和專業見解,鞏固及提 升中心在學界和社會的國際研究聲譽。

知識交流

MHRC 已舉辦了 19 場學術會議、研討會和工作坊等 知識交流活動,共吸引來自 24 個國家 18,000 多名 參加者,以及超過15,800人次在多個社交媒體平台 觀看直播。

Projects Funded by External Funding 外界資助項目

Date 日期	Funding Scheme 資助計劃	Project Title 項目名稱	PI/PC 首席研究員	Date 日期	Funding Scheme 資助計劃	Project Title 項目名稱	PI/PC 首席研究員
03/2024	The Hong Kong Jockey Club Charities Trust	Health Support Project for Persons with Disabilities Investigating the effects of step	Prof. Hector TSANG (RS)	02/2023	Phase 2 of the Mental Health Initiatives Funding Scheme of the Health Bureau HKSAR	Reducing Social Avoidance and Enhancing Prosocial Behaviour among Adolescents with Special Educational Needs	Prof. Sylvia CHEN (APSS)
01/2024	RGC General Research Fund	training and the mediating effects of prefrontal cortex functioning in older adults with mild dementia: a randomized wait-list controlled trial	Dr Wayne CHAN (RS)	01/2023	Beat Drugs Fund (BDF) Regular Funding Scheme, Beat Drugs Fund	STEAM (Smart Teen Edutainment Against Marijuana): Production of teen-driven mini-film package (film plus full guide) for prevention of	Prof. Hector TSANG (RS)
01/2024	RGC Humanities and Social Sciences Prestigious Fellowship Scheme	Developing Community Mental Health Care in Rural China: Local Policy Network, Implementation, and Advocacy	Prof. CHEN Juan (APSS)		Association	marijuana and cannabidiol use in teens Having a Parent with Severe Mental Illness in Rural China: The Family	
	Scheme	Combining biographical narratives and implementation intentions to	7	01/2023	RGC General Research Fund	Situation, Impact on Children, and Potential Service Provision	Prof. CHEN Juan (APSS)
01/2024	RGC General Research Fund	promote seasonal influenza vaccination among community- dwelling older adults: a randomized controlled trial	Dr XIN Meiqi (RS)	01/2023	Seal of Love Donation	Resilient Students Training Hub (ReST Hub): Creating a strengths- based, trauma-informed mental health promotive ecosystem and	Dr Grace HO (SN)
01/2024	RGC Young Collaborative Research Grant (YCRG)	Exploring the Human Frontopolar Cortex in Decision Making: Neural Network Modeling, Aging, and	Dr Bolton CHAU (RS)		Impact Assessment	enhancing student resilience in tertiary education settings Evaluation of the Strive and Rise	
	. ,	Enhancement		12/2022	Service for the Strive and Rise Programme	Programme	Prof. Eric CHUI (APSS)
01/2024	RGC Strategic Topics Grant	Integrated innovative artificial intelligence, genomic, and biomedical technologies in healthcare: Objective diagnosis, personalized therapy, and determining the etiology of major mental disorders	Co-PI: Dr Sonata YAU (RS) Co-Is: Dr Jessie LIN (RS) and Dr Georg KRANZ (RS)	12/2022	Mainland-Hong Kong Joint Funding Scheme (MHKJFS), Innovation and Technology Commission, HKSAR	Advancing application of the active compounds of Chinese Herbal Medicine formulas on counteracting depression: Investigation of the synergistic activation on PACAP- mediated rapid and lasting antidepressant effects	Dr Sonata YAU (RS)
01/2024	RGC Early Career Scheme	Effect Conservation in Process Analysis: The Reason, Solution, and Promotion	Dr NG Chi Kit Jacky (APSS)	12/2022	Hong Kong Jockey Club Charity Trust - COVID-19 Emergency Relief Fund 2.0	Development of a digital platform (Electronic Mental Evaluation, Resources and Information Toolkit; e-MERIT) for pandemic support on the mental health of the vulnerable groups	Prof. Hector TSANG (RS)
10/2023	Health and Medical Research Fund (HMRF)	Intermittent theta-burst stimulation for major depression: an intensity- response study	Dr Georg KRANZ (RS)				
10/2023	Quality Education Fund - e-Learning Ancillary Facilities Programme	Digital Physical Quotient and Learning Platform	Dr Cynthia LAI (RS) and Prof. Shamay NG (RS)	10/2021	Commissioned Research on the Novel Coronavirus Disease (COVID-19), Food & Health Bureau, HKSAR	Developing an integrated mindfulness-based health qigong intervention (iMBHQ) for COVID-19 survivors and caregivers to improve their physical and psychosocial wellness	Prof. Hector TSANG (RS)
09/2023	The Hong Kong Jockey Club Charities Trust	Changing the Trajectory of Children and Youth in Residential Care - Phase One in Small Group Homes	Prof. Eric CHUI (APSS)				
03/2023	Health and Medical Research Fund (HMRF)	A mobile application for early detection and symptoms trajectories of postpartum depression using Ecological Momentary Assessment (EMA): a prospective cohort	Dr Jessie LIN (RS)	10/2021	Commissioned Research on the Novel Coronavirus Disease (COVID-19), Food & Health Bureau, HKSAR	The 3P (Prevention, Protection and Promotion) approach as a novel and effective strategy to prevent infection and enhance recoverry in individual with COVID-19	Prof. David SHUM (HSS)
	Phase 2 of the Mental	validation study Enhancing the Mental Health of		09/2021	Lee Hysan Foundation	Teachers Wellness MED Program (MED = Mental health + Exercise + Diet)	Prof Hector TSANG (RS)
02/2023	Health Initiatives Funding Scheme of the Health Bureau HKSAR	Carers of Persons with Disabilities with Support Services Delivered by Trained Carer Support Ambassadors	Prof. Hector TSANG (RS)	09/2021	The Hong Kong Jockey Club Charities Trust	Collaborative Efforts to Intervene and Prevent Elder Abuse	Prof. Elsie YAN (APSS)

*The projects funded by external funding above were received during the period between September 2021 and May 2024. *以上外界資助項目在 2021 年 9 月至 2024 年 5 月期間獲取。

Projects Funded by External Funding 外界資助項目

*The projects funded by external funding above w<mark>ere received during the period between September 2021 and May 2024.</mark> *以上外界資助項目在 2021 年 9 月至 2024 年 5 月期間獲<mark>取。</mark>

Event Overview of MHRC 活動回顧

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Mental Health Research Centre 精神健康研究中心

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