The Hong Kong Polytechnic University
Centre for Gerontological Nursing

NEWSLETTER

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DIRECTOR'S MESSAGE

Health literacy is one of the key themes of CGN's research activity. The Centre has been supporting the work and collaborating with the Hong Kong Office of the Asia Health Literacy Association (AHLA) (https://sn.polyu.edu.hk/ahla/) in promoting health literacy strategies and tools, enhancing skills among health care professionals to improve health literacy for achieving optimal health outcomes of local populations as well as developing health literate societies in the Asia.

Over the past few years, our achievements were remarkable. Four health literacy tools designed for Chinese populations have been developed, validated, and broadly used by researchers. We researched on mental health literacy related to depression and dementia in the Western Pacific region and the Greater Bay Area. The studies have paved ways for developing strategies and policies for promoting health literate societies in Asia.

In this issue, we are pleased to share with you the efforts we have been made in promoting health literacy on chronic care, mental wellness and for caregivers. Ms Adwoa Owusuaa Koduah, our PhD student, is going to tell us her journey of promoting health literacy in her home country, Ghana. Finally, I am inviting you to participate in our Health Literacy Workshop on Diabetes Education in July 2021. For registration, please contact Ms Pauline Tang, Tel: 2990 4127; Email: tcpc@hkan.hk (Hong Kong College of Community and Public Health Nursing, Hong Kong Academy of Nursing). Let's join hands to enhance health literacy among older people and improve chronic care education practice in Hong Kong!

▲ Left photo: Ms Adwoa Owusuaa Koduah (left) received the Best Oral Presentation Award at an international conference. Right photo: CGN co-organises a health literacy workshop for diabetes with the Hong Kong College of Community and Public Health Nursing, Hong Kong Academy of Nursing.

Angela YM Leung, PhD
Director, CGN

RESEARCH and EDUCATIONAL ACTIVITIES

Reviewing our work on health literacy and embracing the future

Developing health literate societies in Asia

Commissioned by the World Health Organisation, early in 2016, the CGN studied mental health literacy related to depression and dementia in the Western Pacific region (including Cambodia, Fiji, Mainland China and the Philippines) [click 1 & 2 to learn more about the project]. Another two cross-sectional studies were carried out to explore the influencing factors of health literacy among older adults in Taiwan and assess the dementia literacy of community-dwelling adults in Hong Kong, Guangzhou, Macau, and Zhuhai (click 3 & 4 for details). These are the few examples of the collaborative research projects that have deepened the understanding of health literacy in the Western Pacific Region and paved ways for developing strategies and policies for promoting health literate societies.

Instruments for measuring health literacy in Chinese population

We have been collaborating with the interdisciplinary Health Literacy Core Team (click here for details) of the AHLA Hong Kong Office to develop and improve methods to measure health literacy. Four health literacy tools have been developed and validated, including:

- Chinese Health Literacy Scale for Low Salt Consumption-Hong Kong population (CHLSalt-HK)
- Chinese Health Literacy Scale for Chronic Care (CHLCC)
- Chinese Health Literacy Scale for Diabetes (CHLSD)
- Chinese Health Literacy Scale for Diabetes- Multiple-choice Version (CHLSD-MC)

The CHLCC and CHLSD developed by **Dr Angela Leung** (Associate Professor), are archived in the Health Literacy Tool Shed https://healthliteracy.bu.edu/, an online database housed by Boston University and National Library of Medicine of National Institute of Health, United States, and the tools are broadly used by researchers in different Chinese societies.

Recently, **Dr Patrick Kor** (Assistant Professor) Dr Justina Liu, Dr Angela Leung, Dr Simon Lam, and Ms Lee Ka Ching (United Christian Hospital, Hong Kong) have been funded by the Alice Ho Miu Ling Nethersole Charity Foundation to develop and validate a holistic health literacy scale for family caregivers of older people.

Developing new intervention and reaching out to older adults for enhancing health literacy

At the local level, funded by Hong Kong Housing Society, Dr Angela Leung and **Dr Justina Liu** (Associate Professor) assessed health literacy among older residents in 15 public estates. To improve the resident's medication adherence, the research team developed a comic book to help them understand the information on drug labels.

In addition, a multi-component intervention derived from the concept of photovoice was used to motivate diabetic and hypertensive patients to engage in regular physical activity (click here for details). These works provide healthcare professionals evidence-based alternatives to support patients with chronic illnesses.

Promoting mental health literacy

Efforts have been made to enhance people's ability to recognise mental health issues. Training was delivered to the community workers to equip them with a new set of skills using the methodology of photovoice to identify older adults with depressive symptoms. Another study, funded by PolyU's Faculty Collaborative Research Fund, explored mental health literacy issues among ethnic minorities in Hong Kong [The research team: Dr Angela Leung (PI), Daniel Shek (Co-PI), Chair Professor, PolyU's Department of Applied Social Sciences, and Ms Kerrie Chan, Hong Kong Christian Services]. We will continue to promote health literacy and reduce health inequalities in the society.

▲ Left photo: A comic book was created to help older residents in the public estates to understand the information on drug labels, hence, improve their medication adherence. Right photo: To raise public awareness on health literacy, a group of nursing students interviewed Dr Angela Leung in the 'Health GPS' programme on the RTHK Radio AM 621 (click here to listen to the episode about Photovoice).

On 24 Sept 2020, responding to the COVID-19 pandemics, the International Health Literacy Association held a series of webinars. Dr Angela Leung (top row, middle) was invited to talk about the effects of digital health literacy on anxiety among older adults during COVID-19 pandemic. The webinar attracted over 300 registrations from all over the world.

CGN funded research projects

Project Title	Principal Investigator /Project Coordinator	Funding Source	Amount (HK$)
Effects of using a consumer-grade wearable device with biofeedback and brief mindfulness training for stress reduction in family caregivers of people with dementia: A pilot randomized controlled trial	Dr Patrick Kor	PolyU's Start-up Fund for New Recruits	400,000
Effectiveness of the professional-led support programme using a mobile application versus phone advice on patients at risk of coronary heart disease – A randomized controlled trial (Phase 2) ▲ Mr David Ngai (mid in the photo) from Nam Kee Noodle Foundation handed over a cheque to the Head of the School, alongside were the research team members.	Dr Eliza Wong (Principal Research Fellow)	Nam Kee Spring Roll Noodle Co. Ltd The School of Nursing received a donation of HK$ 180,000 from the Nam Kee Noodle Foundation Ltd in 2019 for supporting Dr Eliza Wong's project on cardio health (護心寶計劃). The project received very positive feedback from the participants and the second phase of the project has begun on 1 June 2021	270,000
A music-with-movement exercise program for community-dwelling older adults suffering from chronic pain: A pilot randomized controlled trial	Dr Mimi Tse[+] (Associate Professor)	PolyU's Dean's Reserve	249,499
GAmified HOme-based COgnitive-Nutritional training (GAHOCON) for older people with cognitive frailty: A feasibility study	Dr Rick Kwan	Departmental General Research Fund	150,155

[+]PolyU participating departments: Department of Rehabilitation Sciences & Department of Applied Social Sciences.

FEATURES

New AI system provides a convenient way to detect dementia risk

Dr Rick Kwan, Co-investigator and Assistant Professor of the School, together with Prof. Thomas Choi, Principle Investigator, announced to the public the development of an artificial intelligence (AI) system[#] that automates the assessment of the risk of dementia with an average precision of up to 88% at a press conference. The team has applied a patent for the system in the US.

Currently about 35% of dementia cases are attributed to risk factors, such as hypertension, obesity, depression, and smoking. Dementia risk is also associated with many non-cognitive conditions, such as cardiovascular conditions, nutrition, mobility, and depression. Early detection of people with high risk of dementia enables early modification of lifestyle, timely diagnosis and intervention.

The Mini-Mental State Examination (MMSE), a cognitive screening tool, is commonly used to identify people with cognitive impairment, however, it has some limitations. Using the MMSE at the asymptomatic stage of dementia or repeated use of the questionnaire may lead to a "practice effect" that degrades its effectiveness.

Supported by the HK$ 3.2 million from the Innovation and Technology Fund, Innovation and Technology Commission (ITC) of the HK Government, the research team has developed an AI assessment system that uses health data of older adults, which are routinely and vastly obtained from elderly care facilities or community centers to detect dementia risk.

From 2008 to 2018, the team collected basic profile and health data (including age, gender, blood pressure, teeth condition and nutritional assessment) from over 2,000 older adults, who were aged 77 on average for the AI assessment. The average precision of AI screening of dementia reached 88%. This reliable tool makes early detection of cognitive impairment and prediction of high-risk dementia cases at the asymptomatic stage possible. It also facilitates follow-up or a detailed diagnosis by healthcare professionals.

Dr Rick Kwan, said, 'We used the existing data for predicting the risk of dementia, which was probably a new approach. After seeking their clients' consent, staff of the participating community centres for older adults can upload the health data of their clients (the research participants) to the system to get the assessment results.'

According to Prof. Choi, the research team is planning to apply the Public Sector Trial Scheme under the ITC and use the funding for developing the AI system for implementing in local elderly service centres as well as conducting more trials to further test its effectiveness.

◄ The support of the CGN makes the new invention possible. Prof. Thomas Choi (left) and Dr Rick Kwan provides a new and convenient way for detecting dementia risk of our older adults.

[#]Other Team members: Dr Xiao Shen (Postdoctoral Fellow), PolyU's School of Nursing; Dr Guanjin Wang, Murdoch University, Western Australia, Australia.

OUR PEOPLE
For Ghana-A journey of mental health literacy

'I had communicated with the patients with local dialects and given clear instructions for the use of medicines, however, when I reviewed my cases, I was baffled by the frequent relapse and hospitalisation due to medication non-adherence. I started to probe into the issue hoping to find an answer,' **Ms Adwoa Owusuaa Koduah** recalled the time when she was a psychiatric nurse in a hospital in Ghana that paved her way to a journey of learning and discovery.

Adwoa, a PhD student of the School of Nursing, as well as a member of the CGN and the AHLA Hong Kong Office*, who is passionate about promoting mental health literacy in Western Africa and Asia.

Her MPhil thesis** examined how health literacy and socio-cultural factors influencing mental health nursing practice in Ghana [the findings were published in the *International Journal of Environmental Research and Public Health*, click here for details]. It is the first study on the topic in Ghana, which revealed how Ghanaian cultural beliefs and social norms challenged nursing care delivery. She has also published various health literacy studies focused on undergraduate and practising nurses, street children and the youth in Ghana. Taking the opportunity of studying in Hong Kong, Adwoa is exploring how acculturation has influenced dementia literacy among Africans living in a Chinese society. In her PhD research, Adwoa found that although the level of integration into the Hong Kong society was low among her interviewees, easy and convenient access to mental health information and services, particularly through the internet and the mental health practice of locals have increased the awareness on mental health and level of dementia literacy of Africans residing in Hong Kong. Thus 'their health-seeking behavior has been changed. In the past, they relied on friends and relatives for health information and suggestions, but now they will search on the internet and consult health professionals to learn more about dementia,' said Adwoa.

Her study gives insight into the approach to promote dementia literacy among ethnic minority groups in Hong Kong. By looking into Hong Kong's experience and their ways to enhance dementia literacy, Adwoa hopes that she can transfer those successful strategies into practice in Ghana and develop interventions to relieve the suffering of those who have dementia, mental illness, and epilepsy, and are viewed as a social outcast in Ghana.

With this goal in her mind, after earning the MPhil degree, Adwoa returned to Ghana and worked as a clinician again. One of her achievements during this time was her ability to incorporate two interventions learnt from the CGN members (Dr Daphne Cheung and Dr Angela Leung) into daily routine care for the patients with mental disorder and dementia.

Music-with-movement and the expression of feeling through photos activity helped the patients improve cognition and enhance their mental well-being. Adowa particularly mentioned that during the music-with-movement activity, one patient who was 'abandoned' by her family remembered and described the moment that she last heard the song.

A nurse followed her 'hints' and visited the community she mentioned (a barber shop), where the people over there helped her to contact the patient's family. 'The 20-year-long abandonment was caused by poor communication between the nurses and patient's family. The family thought that the patient was dead. When they met again after separating for so long, they cried aloud in joy,' said Adowa, 'this event showed that a simple intervention can bring a breakthrough in patient care.'

About Ghana

Ghana is in West Africa with a population of 21.6 million. According to the WHO, about 650,000 people are suffering from a severe mental disorder and a further 2.16 million are suffering from a moderate to mild mental disorder. There are three government and one private psychiatry hospitals in Ghana. There is an estimated treatment gap of 98% for mental health disorders in Ghana. Tradition or faith-based healers are the primary source of treatment and care for people with mental health issues. Many Ghanaians still believe that mental illness is a curse or wrongdoing, which is rooted in spiritual causes, not biomedical or physical ones. Feeling shame and subjected to stigma and discrimination, it is not uncommon to see patients being abandoned by their families and stayed in hospitals for 10 years or more.

*Adwoa currently serves as the Assistant Secretary-General of the Asia Health Literacy Association (AHLA), a member of the International Health Literacy Association (IHLA) and a team member of the Health Literacy Explorers of IHLA.

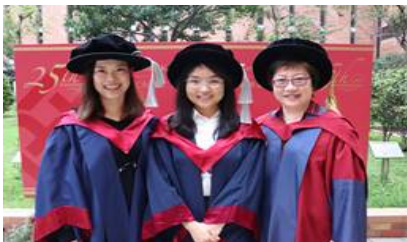**Chief Supervisor, Dr Angela Leung; Co-Supervisor, Dr Justina Liu.

Welcome to Dr Martin Christensen, Associate Professor of the School of Nursing. Dr Christensen specialises in qualitative research methods especially around lived experience. His programme of research centres on older persons within critical care environments, particularly on the assessment and management of delirium. Prior to joining the School, he was a Professor of Nursing and the Director of the Centre for Applied Nursing Research.

Ms Angel Tang, Clinical Instructor, received the Pi lota Chapter (Sigma) Scholarship 2020/21. Her awarding PhD project explored the effectiveness of an electronic pain management programme (ePAIN) for working population with chronic pain.

Dr Shanshan Wang, Postdoctoral Fellow, Dr Xinyi Xu, and Dr Patrick Kor, had their PhD degree conferred at the PolyU 26th Congregation, held in March. Congratulations!

Dr Shanshan Wang (mid) and her supervisors, Dr Daphne Cheung and Dr Angela Leung.

Dr Patrick Kor (right) and his supervisor Dr Justina Liu.

CURRENT ISSUES

(20 Mar)

Dr Justina Liu gave a keynote address on globalization and nursing education at the 31st Congress of The Japanese Association of Medical and Nursing Education.

(26-27 Mar)

Dr Angela Leung was the keynote speaker for the Postgraduate Conference on Interdisciplinary Learning, held in Lingnan University. The conference attracted over 200 participants from more than 11 countries to attend (hybrid mode of participation) and engage in cross-disciplinary intellectual exchange and international research interactions.

(15-16 Apr)

Dr Simon Lam (Assistant Professor) , **Dr Rick Kwan** and **Ms Angel Tang** (Clinical Instructor) participated in the 24th East Asia Forum of Nursing Scholars (EAFONS) Conference (online), hosted by the University of the Philippines Manila College of Nursing.

Top row: 2nd from right, Dr Patrick Kor.
Mid Row: 1st from left, Dr Shan Shan Wang; 1st from right, Mr Laurence Parial.

(29 Apr)

Dr Patrick Kor and **Dr Shan Shan Wang** (Postdoctoral Fellow), talked about their career paths and research experience at the School of Nursing's first 'Coffee with Alumni' activity, which offered postgraduate research students a unique opportunity to exchange their ideas with outstanding alumni over a cup of coffee. **Mr Laurence Parial**, our PhD student, who received the Doctoral Award from the National Hartford Center of Gerontological Nursing Excellence, USA, also supported the event by sharing his learning experience and tips to good research.

Dr Simon Lam (1st from right). Next was Prof. Daniel Shek, HK.WeCARE Advisor & Interim Vice President (Research and Innovation) of PolyU.
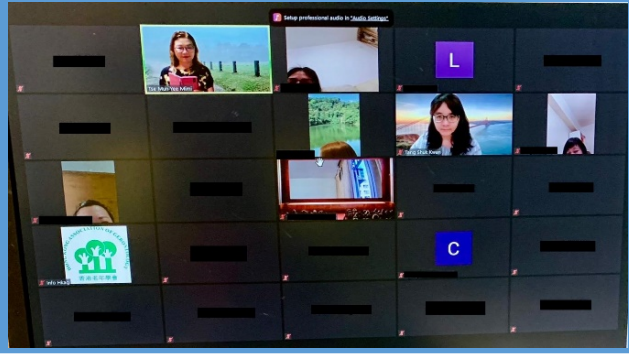
Dr Simon Lam presented the findings of the Family Happiness Index Survey at a press conference. The index rose from 6.89 points in 2019 to 7.26 points this year, and the use of 'five languages of love' among family members also increased. One of the factors contributing to the findings was an increase in interactions within families amid the COVID-19 pandemic. The survey was commissioned by Wofoo Social Enterprises 'HK.WeCARE' and Lee Kum Kee Family Foundation.

Dr Mimi Tse, was invited by the North Toronto Chinese Baptist Church to share her expertise in care of older adults and pain management online. Earlier on 25 May, she and **Ms Angel Tang** were invited to give a lecture for the course 'Pain Management for Older Adults: Multi-disciplinary approach' offered by the Hong Kong Association of Gerontology.
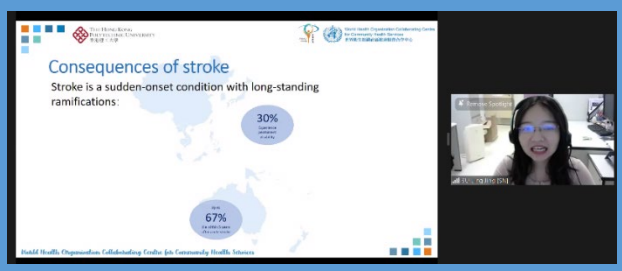

(Lower row: Dr Justina Liu, the speaker of the WHOCC May webinar.)

Dr Justina Liu, shared her literature review on the relationship between nutrition and frailty in the monthly webinar organised by the School's WHO Collaborating Centre for Community Health Services. In the June webinar, **Dr Jing Jing Su**, Postdoctoral Fellow, presented the findings of her qualitative study about caregiver's perspective on palliative care for bedridden patients after stroke.

Upper photo: Dr Shanshan Wang presented her systematic review and meta-analysis on bibliotherapy. Lower photo: Ms Joanna Yin presented her systematic review on sarcopenic obesity.

(28 May)

Dr Shanshan Wang and our PhD student Ms Joanna Yin shared their research findings at the 5th Qilu International Young Nursing Scholar Forum, organised by the School of Nursing, Shandong University, Mainland China. Over 10,000 young scholars attended this online event.