

DEMENTIA AWARENESS SEPTEMBER



 Digital Health
Solution

 Innovative
Interventions

 Empowering
Dyads

PolyU School of Nursing
Advancing Dementia Care
Through Research and Innovation

護理學院
**SCHOOL of
NURSING**

Dementia Awareness Month

PolyU School of Nursing Collective Endeavor in Dementia Care

This September, as we come together to observe World Alzheimer's Month, the PolyU School of Nursing is proud to highlight our ongoing efforts to make a real difference in dementia care. Our research isn't just about academic progress—it's about supporting clinicians, caregivers and people living dementia with practical, meaningful solutions that can improve lives.

We invite you to explore our recent work. Each study reflects our commitment to advancing dementia care and working towards a future where individuals living with dementia receive the compassion and support they deserve.

PolyU School of Nursing - Related Research / Project on Dementia

Research Papers

Cheung, D.S.K., Wang, S., Li, Y., Ho, K., Kwok, R., Mo, S.H., Bressington, D. (2022). Sensory-based intervention for de-escalating agitation of people with dementia: a systematic review. *Aging and Mental Health*. <https://doi.org/10.1080/13607863.2022.2116404>

- Summary: This study found that music-related interventions could **de-escalate agitation** in people with dementia.

Huang, Y., Liu, Y., Wong, C. M., Liu, Y., Chen, J., & Leung, A. Y. M. (2025). Understanding Barriers and Facilitators to Oral Health Interventions in Community-Dwelling Older Adults with Cognitive Impairment: A Scoping Review. *Archives of Gerontology and Geriatrics*, Article 106014. <https://doi.org/10.1016/j.archger.2025.106014>

- **Summary:** It highlights the unique challenges older adults with **cognitive impairment face in maintaining oral health**. By identifying key barriers and enablers, it provides practical insights to support the design of **more accessible oral health programs**. By recognizing that oral hypofunction shares overlapping mechanisms with cognitive decline, the School of Nursing at PolyU is launching **an innovative Oral Motor-Cognition Dual-Task Training (OMCDT) program** to strengthen oral motor function and help protect against cognitive decline.

Kor, P. P. K., Parial, L. L., Yu, C. T. K., Liu, J. Y. W., Liu, D. P. M., & Hon, J. M. K. (2024). Effects of a Family Caregiver-Delivered MultiSensory Cognitive Stimulation Intervention for Older People With Dementia During Coronavirus 2019: A Randomized Controlled Trial. *The Gerontologist*, 64(2), Article gnad054. <https://doi.org/10.1093/geront/gnad054>

- **Summary:** It introduces the "5-sense box" as an innovative tool for **family caregivers**. The 5-sense box is a toolkit that enables caregivers to use simple, **readily available items to stimulate different capabilities** with five different senses in older adults. The items can be mixed and matched to provide **flexible sensory experiences** for multiple sessions at home or anywhere at convenience.

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Wang, S., Bressington, D.T., Leung, A.Y.M., Davidson, P.M., Cheung, D.S.K. (2020). The effects of bibliotherapy on the mental well-being of informal caregivers of people with neurocognitive disorder: A systematic review and meta-analysis. *International Journal of Nursing Studies*. <https://doi.org/10.1016/j.ijnurstu.2020.103643>

- **Summary:** This systematic review showed that bibliotherapy could **reduce depression and anxiety and improve self-efficacy** for dealing with problem behaviors for informal caregivers of people with neurocognitive disorders.

Wang, S., Cheung, D.S.K., Davidson, P.M., Leung, A.Y.M. (2020). Factors associated with caregiving appraisal of informal caregivers: a systematic review. *Journal of Clinical Nursing*, 29(17-18): 3201-3221. <https://doi.org/10.1111/jocn.15394>

- **Summary:** This study found that the caregiving appraisal of informal caregivers of people with dementia is influenced by multiple levels of factors, including **community-level factors such as social support; interpersonal-level factors such as family functioning;** and **individual-level factors** such as care recipient behavioral problems. We advocate for comprehensive interventions targeting these factors to improve caregiving appraisal.

Wang, S., Cheung, D.S.K., Leung, A.Y.M., Davidson, P.M. (2021). Effects of bibliotherapy on improving caregiving appraisal of informal caregivers of people with dementia: A pilot randomized controlled trial. *Research in Nursing & Health*. <https://doi.org/10.1002/nur.22143>

- **Summary:** This study found that, bibliotherapy, a self-help intervention, could significantly improve the **caregiving appraisal of informal caregivers of people with dementia**, as well as their positive aspects of caregiving.

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Wang, S., Molassiotis, A., Guo, C., Leung, I. S. H., & Leung, A. Y. M. (2023). Association between social integration and risk of dementia: A systematic review and meta - analysis of longitudinal studies. *Journal of the American Geriatrics Society (JAGS)*, 71(2), 632–645.
<https://doi.org/10.1111/jgs.18094>

- **Summary:** Our findings reveal that high social engagement and frequent social contact are significantly associated with a lower risk of dementia, whereas loneliness is associated with a higher risk. The promising impact of large social network size is also identified.

Wang, S., Huang, Y., Fan, S.Y.A., Ho, M.S., Davidson, M.P. (2023). Factors influencing the psychosocial well-being of people with dementia and their informal caregivers: A systematic review of dyadic studies. *International Journal of Mental Health Nursing*.
<http://doi.org/10.1111/inm.13279>

- **Summary:** This study found that the psychological well-being of people with dementia and their caregivers are **inter-related**, particularly for **their quality of life**.

Wang, S., Shan, Q., Cheung, D.S.K., Xu, X., Leung, I.S.H., Leung, A.Y.M. (2022). Influence of dementia literacy and caregiving appraisal on the psychological well-being of informal caregivers of people with dementia: A cross-sectional study. *Frontiers in Medicine*.
<https://doi.org/10.3389/fmed.2022.971481>

- **Summary:** This study found that caregivers' attitude toward dementia significantly influences their **appraisal of the caregiving experiences**, as well as their psychological wellbeing. However, knowledge of dementia only influences their psychological wellbeing.

PolyU School of Nursing - Related Research / Project on Dementia

Wang, S., Leung, I.S.H., Xu, X.Y., Liu, M.H., Wang, P., Zhang, W., Moyle, W. (2024). Influence of Social Disengagement and Depressive symptom on Sleep Disturbance in Dementia Caregiving Dyads: A Nationally Representative Study. *Journal of the American Medical Directors Association*. <https://doi.org/10.1016/j.jamda.2024.105197>

- **Summary:** This study find that caregivers' sleep issues are influenced by both their own **feelings of depression and social withdrawal**, as well as those of the person with dementia. On the other hand, people with dementia are mainly **affected by their own depression**. So, doing activities that help both **feel happier and more connected socially** might actually lead to better sleep for both of them.

Wang, S.M., Li, W.Y., Wang, S., Huang, C.M., Xue, W.L., Szanton, S.L., Liu, M.H. (2024). Sustained frailty remission and dementia risk in older adults: A longitudinal study. *Alzheimer's & Dementia* <http://doi.org/10.1002/alz.14109>

- **Summary:** This study highlights that **sustained frailty remission** reduced risk of incident dementia. **Age and gender** played a role in the frailty-dementia link, and thus individualized dementia risk screening is necessary. **Physical frailty** could be an essential forewarning of cognitive decline and an ideal target for interventions to prevent dementia.

Wang, Z., Xu, X.Y., Yang, X., Wang, S., Zhou, Y., Li, Y. (2024). Effects of multicomponent exercises on cognitive function in people with mild cognitive impairment: A systematic review and meta-analysis. *International Journal of Nursing Studies*.
<https://doi.org/10.1016/j.ijnurstu.2024.104843>

- **Summary:** The findings of this study suggest that multicomponent exercise has a **positive impact** on various cognitive domains, including global cognition, cognitive flexibility, processing speed, verbal fluency, attention and memory in **mild cognitive impairment**. Specifically, the combination of exercises including **cardiovascular** and motor components was found to be effective in improving global cognition.

Wang, S., Cheung, D.S.K., Leung, I.S.H., Fan, A.Y.N., Ning, W., Leung, A.Y.M. (2025). Social media-based bibliotherapy for improving the mental health of informal caregivers of people with dementia: A randomized controlled trial. *BMC Nursing* <https://doi.org/10.1186/s12912-025-02778-7>

- **Summary:** In this study, we found that daily using messengers, such as WhatsApp could be used to deliver intervention for **dementia caregivers**. Bibliotherapy delivered by WhatsApp significantly improved caregivers' mental health.

PolyU School of Nursing - Related Research / Project on Dementia

Wang, S., Luo, Y., Shan, Q., Liu, M., Wang, P., Huang, C., & Isaac Leung, S. H. (2025). Unraveling the subjective well-being of formal and informal caregivers for people with dementia: a comparative analysis. BMC Geriatrics, 25(1), Article 82. <https://doi.org/10.1186/s12877-024-05640-8>

- **Summary:** This study found that both formal and informal caregivers of people with dementia experience similar caregiving stress. However, **formal caregivers** exhibited better psychological well-being and self-rated health compared to informal caregivers. The psychological well-being of informal caregivers was primarily influenced by **coping and caregiving mastery**, while those of formal caregivers were mainly influenced by **caregiving satisfaction and caregiving intensity**.

Xu, X., Wang, S., Niu, L., Leung, I.S.H., Tian, Q. (2022). Association of leisure activity changes and reversion from mild cognitive impairment to normal cognitive function among older people: A prospective cohort study. Frontiers in Public Health. <https://doi.org/10.3389/fpubh.2022.1035762>

- **Summary:** This study found that older adults with higher leisure activity engagement had **greater possibility of mild cognitive impairment reversion**. These results provide a practical message to older adults the **significance of doing leisure activities** in improving cognitive functions.

Zhao, I. Y., Parial, L. L., Montayre, J., Golub, J. S., Ng, J. H., Sweetow, R. W., Chan, E. A., & Leung, A. Y. M. (2023). Social engagement and depressive symptoms mediate the relationship between age-related hearing loss and cognitive status. *International Journal of Geriatric Psychiatry*, 38(8), Article e5982. <https://doi.org/10.1002/gps.5982>

- **Summary:** It demonstrates that **social engagement and depressive symptoms** mediate the negative associations between **age-related hearing loss (ARHL) and cognitive status**. Individuals experiencing both ARHL and depressive symptoms, or both ARHL and social disengagement, face an **increased risk of cognitive impairment**. Therefore, treating hearing loss, addressing depressive symptoms, and enhancing social engagement are important strategies for minimizing cognitive decline.