

Community-Based Healthy Ageing Education and Mental Health Literacy Among Older Adults in Miri, Sarawak

Miguel Barros De Sá¹, Edza Aria Wikurendra^{2*}, Josfirin Uding Ranga³

^{1,2}Curtin University Malaysia, Miri, Sarawak, Malaysia

³Universiti Malaysia Sarawak, Kuching, Sarawak, Malaysia

*Corresponding author: edzaaria@curtin.edu.my

Submitted	Revised	Accepted
25 April 2026	4 September 2026	4 September 2026

Abstract

Population ageing is accelerating in Malaysia, creating an urgent need for community-based approaches that strengthen mental-health literacy and social support among older adults. This community engagement programme evaluated a healthy-ageing knowledge-transfer session delivered at a Pusat Aktiviti Warga Emas (PAWE) centre in Miri, Sarawak. A one-group pretest-posttest design was used because the original programme did not include a control group. Nineteen valid questionnaires were analysed after a 2.5-hour face-to-face session on 19 June 2025. The intervention covered healthy ageing, depression in later life, protective factors, and the role of structured social support. The instrument comprised sociodemographic items and 10 knowledge questions administered immediately before and after the session. Because only summary percentages were available, analysis was descriptive and focused on percentage-point changes. Participants were predominantly women (68.4%), with a mean age of 66.16 years. The largest gains occurred for knowledge of major protective factors against depression (+31.5 percentage points), awareness of the proportion of older adults affected by mental-health problems (+26.3), understanding of structured social support (+15.8), and recognition of PAWE's role (+10.5). Three abstract or exception-based items declined after the session. The programme was feasible and showed promising short-term educational gains, but the absence of a control group and paired individual-level data limits causal interpretation. Future programmes should use booster sessions, age-friendly visual materials, and controlled or paired-data evaluation.

Keywords: healthy ageing; mental-health literacy; social support; older adults; community intervention

Abstrak

Penuaan penduduk di Malaysia berlangsung cepat dan meningkatkan kebutuhan akan pendekatan berbasis komunitas untuk memperkuat literasi kesehatan mental serta dukungan sosial pada lansia. Program pengabdian ini mengevaluasi sesi transfer pengetahuan tentang healthy ageing yang dilaksanakan di Pusat Aktiviti Warga Emas (PAWE), Miri, Sarawak. Desain yang digunakan adalah one-group pretest-posttest karena program asli tidak menggunakan kelompok kontrol. Sebanyak 19 kuesioner valid dianalisis setelah sesi tatap muka selama 2,5 jam pada 19 Juni 2025. Intervensi mencakup healthy ageing, depresi pada usia lanjut, faktor protektif, serta peran dukungan sosial terstruktur. Instrumen terdiri atas data sosiodemografi dan 10 pertanyaan pengetahuan yang diberikan segera sebelum dan sesudah sesi. Karena data yang tersedia hanya berupa persentase ringkasan, analisis dilakukan secara deskriptif menggunakan perubahan poin persentase. Peserta didominasi perempuan (68,4%) dengan rerata usia 66,16 tahun. Peningkatan terbesar ditemukan pada pengetahuan tentang faktor protektif utama terhadap depresi (+31,5 poin persentase), proporsi lansia dengan masalah kesehatan mental (+26,3), pentingnya dukungan sosial terstruktur (+15,8), dan peran PAWE (+10,5). Tiga item yang bersifat abstrak atau berbentuk pengecualian mengalami penurunan setelah sesi. Program menunjukkan kelayakan dan nilai edukatif jangka pendek yang menjanjikan, tetapi ketiadaan kelompok kontrol dan data individual berpasangan membatasi interpretasi kausal. Program selanjutnya perlu menggunakan sesi penguatan, materi visual ramah lansia, serta evaluasi dengan kelompok pembandingan atau data berpasangan.

Kata kunci: healthy ageing; literasi kesehatan mental; dukungan sosial; lansia; intervensi komunitas

INTRODUCTION

Population ageing is a major demographic transition with immediate public-health implications. The World Health Organization (WHO) and the United Nations have designated 2021–2030 as the Decade of Healthy Ageing, emphasising environments and systems that allow older people to maintain functional ability, dignity, and social participation (World Health Organization, 2023). In Malaysia, 4.1 million people, or 12.0% of the national population, were aged 60 years and over in 2025, and the country is expected to become an ageing nation when this proportion exceeds 15% (Department of Statistics Malaysia, 2025). This demographic transition increases pressure on health, long-term care, and community-support systems, particularly in settings where ageing is already visible in everyday social life (Khan et al., 2024; Thinley, 2021). Healthy ageing extends beyond the absence of disease. WHO defines it as the process of developing and maintaining functional ability that enables well-being in older age (World Health Organization, 2023). Mental health and social connectedness are therefore central components of ageing well. Approximately 14% of adults aged 70 years and over live with a mental disorder, while loneliness and social isolation are established risk factors for later-life mental-health problems (World Health Organization, 2025). Depression in older age may remain under-recognised, help-seeking can be delayed, and clinic-centred services alone may not adequately address psychosocial needs (Elshaikh et al., 2023; Reynolds et al., 2022). In Malaysia, the reported increase in lifetime prevalence of mental disorders further supports the need for preventive, literacy-oriented, and stigma-sensitive interventions delivered close to where older adults live and interact (Raaj et al., 2021).

Community day services and structured social-support settings may provide practical platforms for such interventions. Evidence indicates that day centres for older adults can support routine, belonging, social participation, and mental well-being (Orellana et al., 2020). Adult day services may also help buffer loneliness and social isolation by providing socially meaningful opportunities for engagement and support (Sadarangani et al., 2024). Social participation and informal or structured social support have been associated with lower depressive symptoms and better mental health among older adults (Dong et al., 2024; Wang et al., 2022). These findings suggest that community-based education may be more meaningful when health information is linked to a setting that participants already recognise and use.

In Malaysia, Pusat Aktiviti Warga Emas (PAWE) is a community platform where older adults can participate in daily activities within a supportive and developmental environment (Jabatan Kebajikan Masyarakat, 2018). The Miri-based Knowledge Transfer Programme (KTP) addressed three local educational needs: limited understanding of healthy ageing as a functional and psychosocial concept, incomplete recognition of depression-related risks and protective factors, and uneven recognition of PAWE as a structured support resource. Previous evidence supports the potential value of community participation and social support, but individual-level data were unavailable to test mediation between social support and depression. This article therefore focuses on the educational component that can be evaluated transparently using the available pretest and posttest summary data.

The programme's practical contribution lies in integrating healthy-ageing education, depression literacy, social-support concepts, and explicit recognition of PAWE within one short, community-centred session. Rather than treating PAWE merely as a venue, the intervention framed it as an actionable social-support environment. This study aimed to describe immediate changes in older adults' mental-health-related knowledge after the PAWE-based session and to identify knowledge domains that showed the largest gains, no change, or decline. Because the original programme used a one-group design and the available report contained summary rather than paired individual-level data, the objective was descriptive evaluation rather than causal effectiveness testing.

METHOD

A one-group pretest-posttest community-intervention design was used to evaluate immediate educational change. The programme did not include a control or comparison group; therefore, the evaluation was descriptive and does not establish causal effectiveness. The intervention combined structured education, facilitated discussion, reflection on participants' daily experiences at PAWE, and an empowerment-oriented explanation of PAWE as a community resource for mental well-being. This design permits descriptive assessment of short-term knowledge change. The intervention was implemented at a Pusat Aktiviti Warga Emas (PAWE) centre in Miri, Sarawak, Malaysia, on 19 June 2025. The face-to-face session lasted approximately 2 hours and 30 minutes.

The partner was the PAWE management board in Miri. Beneficiaries were older adults who attended the centre during the scheduled KTP activity. Nineteen valid questionnaires were available for analysis. Participants had a mean age of 66.16 years, and 68.4% were women. Facilitators were members of the KTP team, while the PAWE management board coordinated the timing of participation. Formal inclusion and exclusion criteria beyond attendance at the programme were not documented.

The programme comprised preparation with the PAWE management board, baseline pretest administration, a structured educational session, facilitated reflection and discussion, immediate posttest administration, and recommendations for future reinforcement. Educational content covered the UN Decade of Healthy Ageing, the WHO concept of healthy ageing, common mental-health challenges in later life, depression risk and protective factors, and the role of structured social support through PAWE. Discussion invited participants to relate these concepts to their own experiences of social interaction and support at the centre. The primary outcome was item-level change in correct responses across 10 knowledge questions from pretest to immediate posttest. Positive change was defined descriptively as an increase in the percentage of correct responses; no change indicated identical pretest and posttest percentages; negative change indicated lower posttest accuracy. Secondary indicators included participant sociodemographic characteristics and recognition of PAWE as a structured social-support resource. No a priori numerical success threshold was documented.

The questionnaire contained two components: sociodemographic items covering age, gender, occupation status, household status, and average weekly time at PAWE, and 10 knowledge questions covering healthy ageing, depression in older adults, protective factors, and the role of PAWE. The same knowledge items were administered immediately before and after the session. Programme records did not include formal psychometric validity or reliability coefficients for the 10-item knowledge instrument.

Available data were analysed descriptively using frequencies, percentages, means, standard deviations where reported, and post-minus-pre percentage-point changes for each knowledge item. Participant characteristics were summarised using the valid denominator available for each variable. Because only summary percentages were available rather than paired individual-level response records, paired t-tests, Wilcoxon signed-rank tests, McNemar tests, effect sizes, and confidence intervals could not be validly calculated and were not imputed. No between-group analysis was possible because the original programme had no control group.

Permission to conduct the activity was obtained from the PAWE management board, which coordinated the programme schedule. Programme records did not document separate written informed-consent procedures or a formal ethics-committee approval number.

Future implementation was planned conceptually around booster sessions, simplified age-friendly visual materials, repeated reinforcement of abstract concepts, and longer-term follow-up. Future programmes should strengthen PAWE-centred mental-health promotion and retain paired individual-level data for evaluation. Specific financing, local-champion assignments, and routine monitoring schedules were not documented.

RESULTS

The intervention included 19 older adults with valid questionnaires. The mean age was 66.16 years (SD 8.30; range 48–82 years). Women accounted for 68.4% of participants. Homemakers formed the largest occupational category (52.6%), while self-employed, retired, and unemployed participants each represented 15.8%. Six participants (31.6%) lived alone, three (15.8%) lived with a spouse or partner, and ten (52.6%) lived with children. Weekly PAWE attendance data were available for 13 participants, with a mean of 11.31 hours per week.

Table 1. Partner and participant characteristics

Characteristic	Category / summary	n	%
Age	Mean $\pm$ SD = 66.16 $\pm$ 8.30 years; range 48–82	19	100.0
Gender	Male	6	31.6
	Female	13	68.4
Occupation status	Self-employed	3	15.8
	Homemaker	10	52.6
	Retired	3	15.8
	Unemployed	3	15.8
Household status	Living alone	6	31.6
	Living with spouse / partner	3	15.8

Characteristic	Category / summary	n	%
	Living with children	10	52.6
Average hours at PAWE per week	Mean = 11.31 hours (13 valid responses; 6 missing)	13	68.4 valid

Item-level pretest-posttest results were heterogeneous. The largest positive change was observed for identifying a major protective factor against depression, increasing from 63.2% to 94.7% (+31.5 percentage points). Awareness of the proportion of older adults affected by mental-health issues increased from 42.1% to 68.4% (+26.3 points), understanding of the importance of structured social support increased from 73.7% to 89.5% (+15.8 points), and recognition of PAWE's role increased from 89.5% to 100.0% (+10.5 points). Smaller gains occurred for identifying a non-component of functional ability (+5.2 points) and recognising the importance of discussing healthy ageing (+5.3 points).

Three items showed lower posttest accuracy: knowledge of the UN Decade for Healthy Ageing decreased by 15.8 percentage points, the WHO definition of healthy ageing decreased by 10.5 points, and recognition of a symptom not commonly associated with depression decreased by 10.5 points. The item on depression risk factors remained unchanged at 52.6%. Because only aggregated percentages were available, statistical significance and individual-level change could not be determined.

Table 2. Item-level pretest and posttest performance (n = 19)

Knowledge item	Pretest n (%)	Posttest n (%)	Change (pp)	Interpretation
UN Decade for Healthy Ageing	13 (68.4)	10 (52.6)	-15.8	Declined
WHO definition of healthy ageing	10 (52.6)	8 (42.1)	-10.5	Declined
NOT a component of functional ability	6 (31.6)	7 (36.8)	+5.2	Improved
Importance of discussing healthy ageing	16 (84.2)	17 (89.5)	+5.3	Improved
% of older adults with mental-health issues	8 (42.1)	13 (68.4)	+26.3	Improved
Symptom NOT commonly associated with depression	13 (68.4)	11 (57.9)	-10.5	Declined
Risk factor for depression	10 (52.6)	10 (52.6)	+0.0	No change
Major protective factor against depression	12 (63.2)	18 (94.7)	+31.5	Improved
Role of PAWE	17 (89.5)	19 (100.0)	+10.5	Improved
Importance of structured social support	14 (73.7)	17 (89.5)	+15.8	Improved

DISCUSSION

The findings indicate that a short PAWE-based educational programme can produce meaningful descriptive gains in selected domains of mental-health literacy, particularly those that are concrete, closely related to participants' experiences, and directly connected with social participation. The strongest gains concerned protective factors against depression, the burden of mental-health problems among older adults, structured social support, and PAWE's role as a support environment. These domains are closely aligned with the practical realities of participants who already attend the centre, suggesting that local relevance may facilitate comprehension and immediate recall. However, the one-group design and aggregated data mean that these changes should be interpreted as descriptive educational signals rather than causal proof of intervention effectiveness.

The pattern is consistent with evidence that social participation and support are relevant to older adults' mental health. Dong et al. (2024) reported that informal social support is associated with mental-health outcomes in older adults, while Wang et al. (2022) described relationships between social-participation types and depression. Reviews of day centres and adult day services similarly emphasise routine, belonging, social connection, and opportunities for meaningful engagement (Orellana et al., 2020; Sadarangani et al., 2024). Within this context, the gains observed for structured social support and depression-protective factors are coherent with the broader evidence base, although this study measured knowledge rather than depression symptoms or actual social-support behaviour.

The posttest result showing 100% recognition of PAWE's role is particularly relevant for community-development practice. Educational programmes are more actionable when they connect health information to an accessible local resource. PAWE was not introduced as an abstract institutional concept but as a setting that participants already use for routine activity, interaction, and informal support. Reinforcing the centre's role may strengthen the perceived relevance of continued participation and peer connection. Nevertheless, continued attendance, help-seeking, belonging, and changes in social-support behaviour were not measured, so the present findings should not be extended to these downstream outcomes.

In contrast, three items declined after the intervention, including the UN Decade for Healthy Ageing, the formal WHO definition of healthy ageing, and an exception-based depression-symptom item. This pattern suggests that abstract policy terminology and negatively worded or exception-based questions may be harder to retain in a one-off session. For older-adult education, the findings support a more concrete pedagogical strategy using shorter messages, visual reinforcement, examples drawn from daily routines, recap activities, and repeated exposure. The unchanged depression-risk-factor item further indicates that some concepts may require more than a single educational contact.

From an implementation perspective, the programme demonstrated feasibility within a real-world community setting. Nineteen older adults completed valid questionnaires after a 2.5-hour session, and the content could be delivered through the existing PAWE structure. This is relevant because community interventions that fit within established routines are more likely to be practically sustainable than stand-alone activities requiring new infrastructure. The programme also used facilitated discussion rather than lecture alone, allowing participants to connect healthy-ageing concepts to their experiences at PAWE. This participatory element is consistent with the empowerment orientation of community development, even though empowerment itself was not measured as a separate outcome.

Several methodological limitations remain important. First, the study used a one-group pretest-posttest design without a control group, so maturation, testing effects, chance variation, or other influences cannot be excluded. Second, only immediate posttest knowledge was assessed, providing no evidence about retention. Third, only summary percentages were available rather than paired individual-level records. This prevented valid paired statistical testing, confidence intervals, effect-size estimation, and assessment of whether the same individuals changed their responses. Fourth, the 10-item knowledge instrument was not accompanied by reported psychometric validation or reliability coefficients. Finally, the sample was small and drawn from one PAWE centre, limiting generalisability.

These limitations also clarify the direction for programme improvement. A future evaluation should use either a non-equivalent comparison group or, at minimum, retain paired individual-level pretest and posttest data so that within-person change can be tested. If a control group is feasible, baseline comparability, contamination risk, and group allocation procedures should be documented. Follow-up measurement after several weeks would help determine retention, while validated scales could assess perceived social support, depressive symptoms, loneliness, or help-seeking alongside knowledge. Such additions would strengthen the evaluation while preserving the programme's community-centred and PAWE-based character.

For sustainability, the intervention should be embedded into PAWE's routine educational activities rather than remain a single event. Booster sessions can reinforce difficult concepts, and simplified visual materials can remain at the centre for repeated use. PAWE staff or selected older-adult peer champions could potentially support recurring reinforcement, although such roles were not defined in the available programme records. Any future scale-up should therefore document partner ownership, responsible persons, monitoring frequency, and resources required. This would strengthen both the sustainability and replicability of the programme across comparable PAWE settings in Sarawak.

CONCLUSION

The PAWE-based healthy-ageing education programme showed promising immediate descriptive gains in several mental-health-literacy domains among 19 older adults in Miri, particularly knowledge of depression-protective factors (+31.5 percentage points), the burden of mental-health problems (+26.3 points), structured social support (+15.8 points), and PAWE's role (+10.5 points). At the same time, three abstract or exception-based items showed lower posttest accuracy, indicating that a single educational session did not improve all knowledge domains equally. The findings support PAWE as a feasible setting for community mental-health education, but they should not be interpreted as definitive evidence of effectiveness because the programme had no control group and only aggregated pretest-posttest data were available. Future implementation should strengthen pedagogical reinforcement and use paired individual-level data, follow-up assessment, and a comparison group where feasible.

RECOMMENDATIONS

PAWE and the KTP team should provide brief booster sessions supported by age-friendly visual materials. Future evaluations should retain paired pretest-posttest data, include a comparison group when feasible, and conduct follow-up assessments to measure knowledge retention. Before scale-up, programme ownership, local facilitators, monitoring, and replication resources should be clearly defined.

ACKNOWLEDGEMENTS

The authors thank the management board and members of the participating PAWE centre in Miri, Sarawak, for their cooperation and engagement in the KTP activity. Appreciation is also extended to Curtin University Malaysia for supporting community-engaged knowledge-transfer activities on healthy ageing and mental health.

REFERENCES

- Department of Statistics Malaysia. (2025). Current population estimates, 2025. <https://www.dosm.gov.my/portal-main/release-content/current-population-estimates-2025>
- Dong, Y., Cheng, L., & Cao, H. (2024). Impact of informal social support on the mental health of older adults. *Frontiers in Public Health*, 12, 1446246. <https://doi.org/10.3389/fpubh.2024.1446246>
- Elshaikh, U., Sheik, R., Saeed, R. K. M., Chivese, T., & Alsayed Hassan, D. (2023). Barriers and facilitators of older adults for professional mental health help-seeking: A systematic review. *BMC Geriatrics*, 23(1), 516. <https://doi.org/10.1186/s12877-023-04229-x>
- Jabatan Kebajikan Masyarakat. (2018). Pusat Aktiviti Warga Emas (PAWE). <https://www.jkm.gov.my/main/article/pusat-aktiviti-warga-emas>
- Khan, H. T. A., Addo, K. M., & Findlay, H. (2024). Public health challenges and responses to the growing ageing populations. *Public Health Challenges*, 3(3), e213. <https://doi.org/10.1002/puh2.213>
- Orellana, K., Manthorpe, J., & Tinker, A. (2020). Day centres for older people: A systematically conducted scoping review of literature about their benefits, purposes and how they are perceived. *Ageing & Society*, 40(1), 73–104. <https://doi.org/10.1017/S0144686X18000843>

- Raaj, S., Navanathan, S., Tharmaselan, M., & Lally, J. (2021). Mental disorders in Malaysia: An increase in lifetime prevalence. *BJPsych International*, 18(4), 97–99. <https://doi.org/10.1192/bji.2021.4>
- Reynolds, C. F., III, Jeste, D. V., Sachdev, P. S., & Blazer, D. G. (2022). Mental health care for older adults: Recent advances and new directions in clinical practice and research. *World Psychiatry*, 21(3), 336–363. <https://doi.org/10.1002/wps.20996>
- Sadarangani, T., Fernandez Cajavilca, M., Qi, X., & Zagorski, W. (2024). Adult day services: A potential antidote to social isolation and loneliness in marginalized older adults. *Frontiers in Public Health*, 12, 1427425. <https://doi.org/10.3389/fpubh.2024.1427425>
- Thinley, S. (2021). Health and care of an ageing population: Alignment of health and social systems to address the need. *Journal of Health Management*, 23(1), 109–118. <https://doi.org/10.1177/0972063421994992>
- Wang, X., Guo, J., Liu, H., Zhao, T., Li, H., & Wang, T. (2022). Impact of social participation types on depression in the elderly in China: An analysis based on counterfactual causal inference. *Frontiers in Public Health*, 10, 792765. <https://doi.org/10.3389/fpubh.2022.792765>
- World Health Organization. (2023). WHO's work on the UN Decade of Healthy Ageing (2021–2030). <https://www.who.int/initiatives/decade-of-healthy-ageing>
- World Health Organization. (2025). Mental health of older adults. <https://www.who.int/news-room/fact-sheets/detail/mental-health-of-older-adults>

