Cyprus Mental Health Institute

Cyprus Turkish Journal of Psychiatry & Psychology Vol.8 Issue.2
Doi:10.35365/ctjpp.26.2.04

RESEARCH ARTICLE / ARAŞTIRMA MAKALESİ

Effectiveness of Acceptance and Commitment Therapy and Social Support in Reducing Burnout Among Elderly Caregivers in Nursing Home X, North Sumatra

Kuzey Sumatra X Huzurevinde Yaşlı Bakımında Görevli Bakıcıların Tükenmişliğini Azaltmada Kabul ve Kararlılık Terapisi ile Sosyal Desteğin Etkililiği

Yoza Okta Saputra[1], Hasnida[2], Josetta Maria Remila Tuapattinaja[2], Meutia Nauly[2]

Abstract:

Human development encompasses several stages, one of which is late adulthood, typically defined as the period from age 60 onward. During this stage, social interactions tend to become more selective, and maintaining social and emotional well-being becomes increasingly important. In many contexts, family members traditionally serve as the primary caregivers for older adults; however, the demands of modern life can place significant burdens on families, leading to increased reliance on institutional care facilities. Within these settings, caregivers often face excessive workloads, with one caregiver responsible for multiple residents, which can contribute to physical exhaustion and emotional burnout. This study aimed to examine the effectiveness of Acceptance and Commitment Therapy (ACT) combined with social support in reducing burnout among elderly caregivers. A purposive sampling technique was used to recruit nine participants. Data were collected using the Burnout Scale, Psychological Flexibility Scale, and Social Support Scale, and analyzed using the N-Gain test and Mann-Whitney test. The findings indicated that ACT combined with social support significantly reduced caregiver burnout. Additionally, establishing a self-help group helped sustain these positive outcomes by providing a sustained platform for participants to share experiences, express emotions, and offer mutual support. These results suggest that integrating ACT and structured social support interventions may be a valuable approach to enhancing caregivers' psychological well-being and preventing long-term burnout.

Keywords: Elderly caregiver, Burnout, Acceptance and commitment therapy, Social support, Self-help group.

---

[1]Muhammadiyah Purwokerto University, Faculty of Psychology, Department of Psychology, Purwokerto, Indonesia.

[2]Sumatera Utara University, Faculty of Psychology, Department of Psychology, Medan, Indonesia.

Address of Correspondence/Yazışma Adresi: Yoza Okta Saputra, Muhammadiyah Purwokerto University, Jl. KH. Ahmad Dahlan, Dusun III, Dukuhwaluh, Kembaran, Banyumas, Jawa Tengah 53182, Indonesia, E-mail: yozaokt7@gmail.com.

Date of Received/Geliş Tarihi: 13.07.2025, **Date of Revision/Düzeltme Tarihi:** 15.01.2026, **Date of Acceptance/Kabul Tarihi:** 15.01.2026, **Date of Online Publication/Çevirimiçi Yayın Tarihi:** 15.06.2026

Citing/Referans Gösterimi: Saputra, Y. O., Hasnida, Tuapattinaja, J. M. R. & Nauly, M. (2026). Post-pandemic healthcare workers: A comprehensive bibliometric evaluation of psychosocial impacts and health management strategies. *Cyprus Turkish Journal of Psychiatry & Psychology, 8*(2), 139-146, Doi: 10.35365/ctjpp. 26.2.04

© 2026 The Author(s). Published by Cyprus Mental Health Institute / Cyprus Turkish Journal of Psychiatry and Psychology (www.ktppdergisi.com). This article is an open-access article distributed under the terms and conditions of the Creative Commons Attribution 4.0 license, which permits use, sharing, adaptation, distribution, and reproduction in any medium or format, provided the original work is properly cited and is not used for commercial purposes.
http://creativecommons.org/licenses/by/4.0/

Öz:

İnsan gelişimi çeşitli evrelerden oluşur; bunlardan biri de genellikle 60 yaş ve üzerindekiler olarak tanımlanan ileri yetişkinlik dönemidir. Bu dönemde sosyal etkileşimler daha seçici hâle gelme eğilimindedir ve sosyal ile duygusal iyilik hâlinin korunması giderek daha önemli hâle gelmektedir. Birçok bağlamda aile bireyleri geleneksel olarak yaşlı bireylerin birincil bakım sağlayıcıları olarak görev alır; ancak modern yaşamın talepleri nedeniyle bakım sorumlulukları ailelerde önemli bir yük yaratabilir ve bu durum yaşlı bakım kurumlarına yönelmeyi artırabilir. Bu tür ortamlarda, bir bakım verenin birden fazla sakinle ilgilenmesi sıklıkla fiziksel tükenmişliğe ve duygusal tükenmeye katkıda bulunabilir. Bu çalışma, yaşlı bakıcılar arasında tükenmişliği azaltmada Acceptance and Commitment Therapy (ACT) ile sosyal desteğin birlikte kullanımının etkinliğini incelemeyi amaçlamaktadır. Araştırma tasarımında amaçlı örnekleme (purposive sampling) kullanılarak 9 katılımcı seçilmiştir. Veriler, Tükenmişlik Ölçeği, Psikolojik Esneklik Ölçeği ve Sosyal Destek Ölçeği aracılığıyla toplanmış; N-Gain testi ve Mann–Whitney testi kullanılarak analiz edilmiştir. Bulgular, ACT ile sosyal desteğin birleştirilmesinin bakım veren tükenmişliği anlamlı şekilde azalttığını göstermiştir. Ayrıca, bir öz-yardım grubunun kurulması, katılımcıların deneyimlerini paylaşmalarına, duygularını ifade etmelerine ve birbirlerini desteklemelerine imkân vererek bu olumlu sonuçların sürdürülmesinde önemli bir rol oynamıştır. Bu sonuçlar, ACT ile yapılandırılmış sosyal destek müdahalelerinin bakım verenlerin psikolojik iyilik hâlini güçlendirmek ve uzun vadede tükenmişliği önlemek için değerli bir yaklaşım olabileceğini göstermektedir.

Anahtar Kelimeler: Yaşlı bakıcısı, Tükenmişlik, Kabul ve kararlılık terapisi, Sosyal destek, Kişisel yardım grubu.

Introduction

The elderly experience the most positive emotions when with family (Santrock, 2019; Kail et al., 2017). Families serve as the primary support system for meeting their needs and maintaining their quality of life, welfare, and safety (Triwanti et al., 2014; Flores et al., 2014). Ideally, older adults remain under family care; however, increasing life demands often burden families, leading many to place the elderly in nursing homes (Triwanti et al., 2014). The Ministry of Social Affairs of the Republic of Indonesia estimated that there are around 800 orphanages with over 25,000 elderly residents (Yunisa et al., 2025). According to the Minister of Social Affairs Decree No. 5 of 2004, the caregiver-to-elderly ratio should be 1:5, yet in reality, one caregiver may care for 15–25 elderly people (Ramadhani et al., 2024). In Nursing Home X in North Sumatra, 10 caregivers care for 226 elderly, or about 1:20. Such a workload often causes burnout among caregivers (Hunt, 2003).

Burnout cases increase annually, with over 69,2% of workers affected (Ulbrichtova et al., 2022). Interviews and the Maslach Burnout Inventory indicate that elderly caregivers also experience burnout symptoms, which hinder their ability to provide optimal care and attention. Therefore, effective interventions are needed to reduce burnout among elderly caregivers, including Acceptance and Commitment Therapy (ACT).

Previous studies have examined the effectiveness of ACT in reducing burnout. ACT is effective in reducing burnout syndrome (Montaner et al., 2021; Towey-Swift et al., 2023). However, studies report no significant impact (Watanabe et al., 2023; Reeve et al., 2018). These mixed findings indicate pros and cons regarding ACT's effectiveness. Moreover, ACT primarily strengthens internal coping mechanisms, so external factors contributing to burnout must also be addressed to achieve optimal results.

This aligns with previous research, which emphasizes social support as the primary external factor (Maslach et al., 2022; Lamuri et al., 2023). Several studies have also found that social support significantly reduces burnout and its impact among workers (Ruisoto et al., 2021; Xie et al., 2022; Soriano et al., 2018). One effective form of social support is through social support groups. Previous research has examined ACT, social support, and burnout separately, focusing on nurses and general social workers rather than elderly caregivers.

Based on the above, this study examines the effectiveness of ACT and social support in reducing burnout among elderly caregivers at Nursing Home X. The research aims to test whether ACT and social support interventions can help caregivers provide better care, foster harmonious relationships with the elderly and colleagues, and ultimately improve the well-being of the elderly. The primary outcome of this study is burnout, measured using the Maslach Burnout Inventory (MBI), while secondary outcomes include psychological flexibility, assessed with the Acceptance and Action Questionnaire-II (AAQ-II), and perceived social support, measured using the Interpersonal Support Evaluation List (ISEL).

Method and Materials

Research Design

This study employed a two-arm, matched, quasi-experimental pilot design to examine the effectiveness of Acceptance and Commitment Therapy (ACT) and social support in reducing burnout among elderly caregivers. Participants were selected through purposive sampling based on the following inclusion criteria: having worked as elderly caregivers for at least 2 years and exhibiting moderate to high levels of burnout. The participants were then matched based on age, years of service, and initial burnout scores before being assigned to one of two groups: (1) the ACT group, which received only the Acceptance and Commitment Therapy intervention and served as the active control condition, and (2) the ACT & SS group, which received both ACT and structured social support sessions. This quasi-experimental design was chosen to

ensure methodological rigor despite the limited population and small sample size, typical of pilot intervention studies. Given the small sample size and purposive selection, this study followed a quasi-experimental rather than a true randomized experimental design (Creswell, 2014).

Participants
The study population comprised 12 elderly caregivers working at Nursing Home X. Purposive sampling was used to recruit 9 participants who met the inclusion criteria for the intervention. Given the limited number of caregivers, participants were matched across groups to maintain comparability and minimize selection bias. A total of nine female participants were included in this study. The small sample size was determined by the limited number of eligible caregivers at Nursing Home X and the study's exploratory, pilot nature.

A post hoc power analysis using G Power indicated that, for a medium effect size (d = 0.5) and α = .05, a minimum of 8 participants per group would be required to achieve 80% power. Although the present study had a smaller sample size due to population constraints, it provides preliminary evidence for the feasibility and potential efficacy of ACT and social support interventions. Given the small, homogeneous sample, the findings should be interpreted with caution, and their generalizability is limited.

Procedure
First, the researcher reviewed literature on elderly caregivers, Acceptance and Commitment Therapy, and social support, and conducted interviews to identify caregivers' challenges. Modules for ACT and social support were developed based on the literature. This study was approved by the Ethics Committee of the Ministry of Education, Culture, Research, and Technology, Universitas Sumatera Utara, Faculty of Psychology, with the approval date (May 31, 2025) and decision number (178/UN5.2.1.12.2.1/PPM/2025). In addition, this study received Approval from Nursing Home X, and informed consent was obtained from participants.

Before the intervention began, all participants completed three standardized instruments: (1) the Maslach Burnout Inventory (MBI), (2) the Acceptance and Action Questionnaire-II (AAQ-II), and (3) the Interpersonal Support Evaluation List (ISEL). The MBI served as the primary outcome measure, assessing levels of emotional exhaustion, depersonalization, and personal accomplishment. The AAQ-II and ISEL served as secondary outcome measures, evaluating psychological flexibility and perceived social support, respectively. The ACT group received structured Acceptance and Commitment Therapy focusing on mindfulness, acceptance, and values-based action. The ACT + SS group received the same ACT modules, along with structured social support sessions in which participants shared experiences, discussed coping strategies, and received peer validation in a self-help format. After the intervention, all participants completed the same set of instruments (MBI, AAQ-II, and ISEL) to measure post-test changes. The following is a description of the interventions carried out:

Acceptance and Commitment Therapy (ACT) Group
The ACT intervention consisted of 5 sessions, each lasting approximately 2 hours, conducted in small groups of caregivers. The intervention was delivered by a licensed clinical psychologist who had received formal training and supervision in ACT. Session 1: Orientation, explanation of intervention procedures, and establishment of group rules. Session 2: Functional analysis, introduction to cognitive defusion and acceptance techniques. Session 3: Exercises focusing on present-moment awareness and self-as-context. Session 4: Exploration of personal values and committed action planning. Session 5: Evaluation and follow-up discussion to reinforce learned strategies and address barriers to implementation. Fidelity was maintained through adherence to an ACT manual adapted from Hayes et al. (2012), and facilitators completed session checklists after each meeting.

Acceptance and Commitment Therapy Combined with Social Support (ACT & SS)
Group The ACT & SS intervention consisted of eight sessions (each lasting 2 hours). The first five sessions followed the same ACT structure described above. The three additional sessions incorporated structured social support components designed to enhance interpersonal connectedness and perceived support among participants. Session 6: Psychoeducation on the forms and importance of social support in caregiving. Session 7: Group sharing activities to encourage participants to talk about their experiences, listen to others, and offer social support to peers. Session 8: Follow-up and evaluation, focusing on maintaining social connections and integrating ACT principles into daily caregiving routines. Sessions were facilitated by the same psychologist with co-facilitation by a social worker experienced in group support interventions. No concurrent psychological interventions were administered during the study period.

Instruments
All research instruments were adapted from validated instruments used in previous studies.

Acceptance and Action Questionnaire: Used to measure psychological flexibility, the AAQ-II was initially developed by Hayes et al. (2004) and refined by Bond et al. (2011). This study used the Indonesian version, validated by Saniatuzzulfa & Retnowati (2015), which showed good reliability (Cronbach's α = .719).

Social Support Evaluation List: The Indonesian version tested by Hotmauli et al. (2024) showed good reliability (Cronbach's α = .923).

The Maslach Burnout Inventory, adapted to Indonesian by Yulianto (2020), showed good reliability (Cronbach's α = .835).

Measurements of Module
The Acceptance and Commitment Therapy and social support modules were developed based on relevant literature and analyzed through expert judgment (Azwar, 2013). In this study, four psychologists served as expert judges to ensure the module's validity. The module assessment results, calculated using Aiken's V, are presented in Table 1.

Table 1. *Module content validity results*

No	Assessment Components	V Value	Information
1	Alignment between session 1 objectives and content	.75	Moderate
2	Alignment between session 2 objectives and content	.92	High
3	Alignment between session 3 objectives and content	.75	Moderate
4	Alignment between session 4 objectives and content	.92	High
5	Alignment between session 5 objectives and content	.92	High
6	Alignment between session 6 objectives and content	.83	High
7	Alignment between session 7 objectives and content	.92	High

Statistical Analysis

The primary outcome of this study was the Maslach Burnout Inventory (MBI), which measured burnout levels among elderly caregivers. The secondary outcomes included the Acceptance and Action Questionnaire-II (AAQ-II), which assessed psychological flexibility, and the Interpersonal Support Evaluation List (ISEL), which measured perceived social support. Data analysis was conducted using non-parametric methods due to the small sample size and non-normal data distribution. The within-group pretest-posttest differences were analyzed using the Wilcoxon signed-rank test (exact), and between-group comparisons were examined using the Mann–Whitney U test (exact). Effect sizes were calculated using Cliff's delta for non-parametric comparisons, with 95% confidence intervals reported to estimate effect precision (Field, 2009; Nismalasari et al., 2016). Statistical significance was set at $p < .05$.

Results

Descriptive Results

This study involved 9 elderly female caregivers. Participants' ages were distributed as follows: 22.2% aged 43 years, and 11.1% each aged 35, 39, 40, 41, 53, and 54 years. Most participants (77.7%) had a junior high school education, while 22.2% had completed high school. Marital status was evenly divided between married (44.4%) and divorced (44.4%), with 11.1% unmarried. Work experience ranged from 2 to 12 years, with 22.2% having 12 years and 33.3% having 10 years. The interventions Acceptance and Commitment Therapy and Social Support were effective in reducing burnout, with large effect sizes. Psychological flexibility scores decreased in the high category following ACT, while perceived social support scores increased moderately in the ACT & SS group.

Table 2. *Mann-Whitney, Median, Effect Size, N-Gain, and Effectiveness among the research variables*

	Results
Mann-Whitney	.032*
Median ACT Group	57.000
Median ACT & SS Group	38.000
Effect Size ACT & SS Group	.89**

Hypothesis Testing Results

Effectiveness testing was conducted using nonparametric analyses in JASP v.19.1.0. Participants in the ACT and ACT & SS groups were matched on MBI-measured burnout levels. The score results for each group are presented in Table 3.

Table 3. *Change in burnout score (MBI)*

Group	Pseudonym	Pre-test score	Category	Post-test score	Category	Mean	Z	p-value	Effect Size (r)
ACT	Sar	87	High	56	Moderate	31			
	Vin	72	Moderate	45	Low	27			
	Lil	88	High	58	Moderate	30	-1.826	.034	
	Suw	91	High	61	Moderate	30			
Average Score		84.5		55		29.5			.65
ACT & SS	Mal	82	High	36	Low	46			
	Ic	74	Moderate	32	Low	42			
	Ern	93	High	47	Low	46			
	Sai	86	High	41	Low	45	-2.023	.021	
	Lan	83	High	38	Low	45			
Average Score		83.6		38.8		44.8			.72
Mann-whitney U							4.00	.041	Cliff's δ = 0.46

Changes in participants' total MBI scores before and after the intervention in each group were analyzed using the Wilcoxon signed-rank test. The results indicated a significant reduction in burnout within both groups ($p < .05$). Furthermore, the Mann–Whitney U test revealed that the reduction in burnout was significantly greater in the ACT & SS group compared to the ACT-only group ($p < .05$). The effect size (Cliff's delta = 0.46) suggested a moderate practical difference between the two interventions, indicating that combining acceptance and commitment therapy with social support yielded stronger improvements in reducing burnout levels. Both groups showed significant reductions in burnout levels from pretest to posttest based on the Wilcoxon signed-rank test ($p < .05$). The Mann–Whitney U test further revealed that participants in the ACT & SS group experienced significantly greater improvements compared to the ACT-only group ($U = 4.00$, $p = .041$, Cliff's $\delta = 0.46$), representing a moderate effect. Based on the Mann–Whitney U test results presented in Table 3, the obtained p-value was .041 ($p < .05$), indicating a significant difference in burnout reduction between the two groups. The median MBI score in the ACT & SS group decreased more substantially than in the ACT-only group, suggesting that the combined intervention was more effective. The effect size (Cliff's $\delta = 0.46$) indicated a moderate practical difference between the groups. These findings support the major hypothesis (Ha), confirming that acceptance and commitment therapy, combined with social support, is more effective than ACT alone in reducing burnout among elderly caregivers.

Table 4. *Change in Psychological Flexibility Score (AAQ-2)*

Group	Pseudonym	Pre-test score	Post-test score	Z	p-value	Effect Size (r)
ACT	Sar	39	17			
	Vin	25	13			
	Lil	40	20	1.83	.0625	.91
	Suw	44	23			
Average Score		37.8	18.5			
ACT & SS	Mal	31	15			
	Ic	28	11			
	Ern	46	25			
	Sai	37	17			
	Lan	34	15			
Average Score		35.2	16.6	2.02	.0313	.90

Based on the data in Table 4, within-group analysis using the exact Wilcoxon signed-rank test showed a statistically significant increase in psychological flexibility among participants receiving both Acceptance and Commitment Therapy and social support ($W = 15.00$, $p = .031$, $r = .90$), indicating a large effect. In contrast, the ACT-only group showed a non-significant improvement ($W = 10.00$, $p = .063$, $r = .91$), although the effect size was large. These results suggest that adding social support enhanced ACT's effectiveness in improving psychological flexibility among elderly caregivers.

Table 5. *Change in Perceived Social Support Score (ISEL)*

Group	Pseudonym	Pre-test score	Post-test score	Z	p-value	Effect Size (r)
ACT	Sar	66	67			
	Vin	56	58			
	Lil	51	53			
	Suw	54	58			
Average Score		56.8	58.5	-1.34	.125	.67
ACT & SS	Mal	68	88			
	Ic	60	77			
	Ern	49	72			
	Sai	63	81			
	Lan	68	85			
Average Score		61.5	80.6	-2.02	.031	.90

Based on the data in Table 5, the Wilcoxon signed-rank test revealed a non-significant increase in perceived social support among participants in the ACT group (Z = -1.34, p = .125, r = .67, large effect). In contrast, a significant improvement was observed in the ACT & SS group (Z = -2.02, p = .031, r = .90, large effect), indicating that adding social support components to ACT substantially increased participants' perceived social support.

Discussion

The results showed that the major hypothesis (Ha) was accepted, indicating that ACT and SS were effective in reducing burnout among elderly caregivers. These findings align with previous studies showing the effectiveness of ACT in reducing burnout, including Montaner et al. (2021) among professional dementia caregivers and Towey-Swift et al. (2023) among professional workers. Similarly, prior research supports the role of social support in reducing burnout. Ruisoto et al. (2021) found that social support reduces exhaustion, cynicism, and feelings of inadequacy among nurses, while Xie et al. (2022) reported that coworker support decreases burnout among social workers. Soriano et al. (2018) also found that support from supervisors and colleagues plays a critical role in preventing burnout. These findings confirm that social support provides essential external reinforcement that complements ACT in lowering burnout.

The minor hypothesis (Ha_1) posits that psychological flexibility (acceptance and commitment) differs before and after the intervention. The results showed that Ha_1 was accepted, indicating an increase from inflexibility before treatment to flexibility after acceptance and commitment therapy in both the ACT and ACT & SS groups, resulting in a reduction in burnout from high to moderate levels. Acceptance and commitment therapy enhances internal strength through psychological flexibility, thereby reducing burnout. Biglan et al. (2013) also found that teachers with higher psychological flexibility experience lower levels of burnout despite stressful working conditions, as they employ more adaptive coping strategies.

The results of this study show that psychological flexibility reduces exhaustion, cynicism, and ineffectiveness. Elderly caregivers can work in accordance with their values, such as compassion, responsibility, and social concern, allowing them to enjoy their work despite heavy workloads, limited control, and a lack of appreciation. These findings are consistent with those of Puolakanaho et al. (2020), who found that psychological flexibility enables individuals to accept internal experiences (e.g., unpleasant thoughts and feelings) while continuing to act in accordance with their values.

The results showed that Ha_2 was accepted, indicating a significant increase in perceived social support in the ACT & SS group compared to the ACT-only group. The ACT & SS group demonstrated a moderate increase in perceived social support following the intervention. Consequently, the ACT & SS group experienced a reduction in burnout from moderate to low levels. The results of this study are consistent with those of Shahwan et al. (2024), which demonstrated that perceived social support significantly reduces burnout among postgraduate students, with this effect mediated by improved coping skills. Similarly, Ruisoto et al. (2021) revealed that perceived social support not only reduces burnout but also mitigates the negative impact of stress and enhances coping abilities. These findings indicate that perceived social support substantially reduces burnout and plays a crucial role in psychological health (Eagle et al., 2019).

Based on demographic data, all participants were women. The findings indicate gender bias, where participants experienced burnout due to dual roles as mothers and workers, work-life imbalance, low salaries, and limited social support. This aligns with Matsuo et al. (2020) and Jalili et al. (2021), who found higher burnout among women due to the dual demands of domestic and professional roles, feelings of overwhelm at work, and a lack of support. Similarly, Ely et al. (2011) highlighted that low salaries and limited opportunities for promotion contribute to women's burnout.

Participants were aged 35–54 years, which corresponds to adulthood (Santrock, 2019). Mendes & Miguel (2024) also found that burnout is more common in adults than in older age groups. Several participants were married, consistent with Purvanova & Muros (2010), who reported that married women experience higher burnout due to additional household demands. Furthermore, Ahola & Hakanen (2007) found that individuals with lower levels of education are more prone to burnout due to monotonous jobs, limited autonomy, and few career opportunities, which aligns with this study's finding that participants with middle- to high-school education experienced burnout.

Acceptance and commitment therapy, combined with social support, effectively reduces burnout among elderly caregivers. This effectiveness is supported by the Mann-Whitney analysis, participants' average scores across burnout dimensions, and observed behavioral and perceptual changes after the intervention. This aligns with Montaner et al. (2021), who found that individuals without burnout experience greater job enjoyment, positive emotions, and life satisfaction. The findings also show that the combination of acceptance and commitment therapy and social support produces a significantly greater reduction in burnout than acceptance and commitment therapy alone. Although the large effect size cannot be generalized due to the small sample, both interventions may serve as valuable references or alternatives for reducing caregiver burnout.

Limitations

This study has several limitations that warrant consideration in future research. First, the post-test in the experimental group was conducted a week after treatment, which could have allowed external variables to affect the results. Participants might have received other interventions beyond ACT and social support; therefore, future studies should administer post-tests immediately after treatment. Second, all participants were female, limiting generalization across genders and preventing representation of male caregivers, who may differ in aspects such as promotion and salary, which may influence burnout. Third, this study did not control for work duration or workload, which could affect burnout levels. Lastly, the study did not consider caregivers' lack of control or appreciation at work, factors that may also contribute to burnout and warrant further examination in future research.

Conclusion

This pilot study provides preliminary evidence suggesting that Acceptance and Commitment Therapy (ACT), particularly when combined with social support, shows promise for reducing burnout among elderly caregivers. Caregivers who received both interventions exhibited lower burnout levels (low) compared to those receiving ACT alone (low–moderate). Qualitative findings further support this trend, indicating that participants in the ACT & SS group reported feeling happier, more mindful at work, emotionally stable, and more grateful for their caregiving roles. The combination of ACT and social support showed strong potential to reduce burnout. Interviews also revealed that participants aligned their caregiving with personal values, managed emotions more effectively, and benefited from peer sharing, which fostered self-help dynamics and reduced emotional burdens.

Moreover, psychological flexibility appeared to increase after ACT-based interventions, suggesting that participants became more adaptive, better at regulating negative emotions, and remained value-focused when facing caregiving challenges. Perceived social support also showed moderate improvement in the ACT & SS group and slight improvement in the ACT-only group, reflecting that sharing and mutual support may contribute to reduced burnout intensity. Overall, these findings indicate efficacy and the feasibility of ACT combined with social support in improving caregivers' well-being, warranting further validation through larger randomized controlled studies.

Declarations

Ethics Committee Approval

This research was initiated in 2024, with approval from the Universitas Sumatera Utara Human Research Ethics Committee under project number 178/UN5.2.1.1.2.2.1/PPM/S2/2024.

Consent for Publication

Not Applicable.

Availability of Data and Materials

Not Applicable.

Competing Interests

The author declares that there is no competing interest in this manuscript.

Funding

This research received grants from the Faculty of Psychology at Universitas Muhammadiyah Purwokerto and the Faculty of Psychology at Universitas Sumatera Utara.

Authors' Contributions

YOS contributed to the development of the study's concept and design, data collection, data analysis, drafting of the manuscript, and the final approval and accountability stages. H contributed to the development of the study's concept and design, critical revision of the manuscript, final approval and accountability, and financial support. JMRT contributed to data collection, critical revision of the manuscript, final approval, accountability, and the provision of technical/material support. MN contributed to data analysis, critical revision of the manuscript, final approval and accountability, and supervision activities.

References

Ahola, K., & Hakanen, J. (2007). Job strain, burnout, and depressive symptoms: A prospective study among dentists. *Journal of Affective Disorders*, 104(1-3), 103–110. https://doi.org/10.1016/j.jad.2007.03.004

Azwar, S. (2013). Metode penelitian. Yogyakarta: Pustaka Pelajar. ISBN 979-9075-27-0

Biglan, A., Layton, G. L., Jones, L. B., Hankins, M., & Rusby, J. C. (2013). The value of workshops on psychological flexibility for early childhood special education staff. *Topics in Early Childhood Special Education*, 32(4), 196–210. https://doi.org/10.1177/0271121411425191

Cao, B., Hassan, N. C., & Omar, M. K. (2024). The impact of social support on burnout among lecturers: A systematic literature review. *Behavioral Sciences*, 14(8), 727. https://doi.org/10.3390/bs14080727

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences (2nd ed.).* Hillsdale, NJ: Lawrence Erlbaum Associates, Publishers. ISBN 978-0-8058-0283-2

Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches, 4th ed.* Sage Publications: California. ISBN 978-1-4522-2609-5

Eagle, D. E., Hybels, C. F., & Proeschold-Bell, R. J. (2019). Perceived social support, received social support, and depression among clergy. *Journal of Social and Personal Relationships*, 36(7), 2055–2073. https://doi.org/10.1177/0265407518776134

Field, A. (2009). *Discovering statistics using SPSS* (3rd ed.). London: SAGE Publication Ltd. ISBN 978-1-84787-906-6

Flores, N., Jenaro, C., Moro, L., & Tomşa, R. (2014). Salud y calidad de vida de cuidadores familiares y profesionales de personas mayores dependientes: estudio comparativo. *European Journal of Investigation in Health, Psychology and Education*, 4(2), 79–88. https://doi.org/10.3390/ejihpe4020007

Hotmauli, M., Badrujaman, A., & Fitri, S. (2024). Adaptation factor analysis instrument of interpersonal support evaluation list in Indonesian version: *Confirmatory Approach*. IJCSRR, 7(6). https://doi.org/10.47191/ijcsrr/V7-i6-02

Hunt, C. K. (2003). Concepts in caregiver research. *Journal Of Nursing Scholarship*, 35(1), 27–32. https://doi.org/10.1111/j.1547-5069.2003.00027.x

Jalili, M., Niroomand, M., Hadavand, F., Zeinali, K., & Fotouhi, A. (2021). Burnout among healthcare professionals during the COVID-19 pandemic: a cross-sectional study. *International Archives of Occupational and Environmental Health*, 94, 1345–1352. https://doi.org/10.1007/s00420-021-01695-x

Kail, R. V., & Cavanaugh, J. C. (2017*). Human development is a life span.* Cengage: United States of America. ISBN 978-1-305-25357-0

Kementerian Kesehatan Republik Indonesia. (2024). Sindrom burnout akibat stres berkepanjangan. P2PTM. (Retrieved July 20, 2024)

Lamuri, A., Shatri, H., Umar, J., Sudaryo, M. K., Malik, K., Sitepu, M. S., Muzelluna, V. N., Nursyirwan, S. A., Idrus, M. F., Renaldi, K., Abdullah, M. (2023). Burnout dimension profiles among healthcare workers in Indonesia. *NCBI,* 9(3). https://doi.org/10.1016/j.heliyon.2023.e14519

Maslach, C., & Leiter, M. (2022). *Managing people's relationships with their jobs.* Harvard University Press: United States of America. ISBN 978-0-674-25101-4

Matsuo, T., Kobayashi, D., Taki, F., Sakamoto, F., Uehara, Y., Mori, N., & Fukui, T. (2020). Prevalence of health care worker burnout during the coronavirus disease 2019 (COVID-19) pandemic in Japan. *JAMA Network Open*, 3(8). https://doi.org/10.1001/jamanetworkopen.2020.17271

Mendes, B., & Miguel, I. (2024). Age and burnout: The mediating role of emotion regulation strategies. *Social Sciences,* 13(5), 274. https://doi.org/10.3390/socsci13050274

Montaner, X., Tárrega, S., & Pulgarin, M. (2021). Effectiveness of acceptance and commitment therapy (ACT) in professional dementia caregivers' burnout. *Clinical Gerontologist*, 45(4), 915–926. https://doi.org/10.1080/07317115.2021.1920530

Montaner, X., Tárrega, S., & Moix, J. (2021). Psychological flexibility, burnout, and job satisfaction in dementia care workers. *Esp Geriatr Gerontol*, 56(3), 144–151. https://doi.org/10.1016/j.regg.2020.10.004

Nismalasari, S. & Rohmadi, H. M. (2016). Penerapan model pembelajaran learning cycle terhadap keterampilan proses sains dan hasil belajar siswa pada pokok bahasan getaran harmonis. *EduSains*, 4(2). https://doi.org/10.23971/eds.v4i2.511

Prudenzi, A., Graham, C. D., Flaxman, P. E., Wilding, S., Day, F., & O'Connor, D. B. (2022). A workplace acceptance and commitment therapy (ACT) intervention for improving healthcare staff psychological distress: A randomized controlled trial. *PloS One,* 17(4), e0266357. https://doi.org/10.1371/journal.pone.0266357

Puolakanaho, A., Tolvanen, A., Kinnunen, S. M., & Lappalainen, R. (2020). A psychological flexibility-based intervention for Burnout: A randomized controlled trial. *Journal of Contextual Behavioral Science,* 15, 52–67. https://doi.org/10.1016/j.jcbs.2019.11.007

Purvanova, R. K., & Muros, J. P. (2010). Gender differences in burnout: A meta-analysis. *Journal of Vocational Behavior*, 77(2), 168–185. https://doi.org/10.1016/j.jvb.2010.04.006

Ramadhani, F., & Wardana, L. M. (2024). Perawat lansia: banyak dibutuhkan, tapi kurang diapresiasi. Retrieved August 1, 2024, from https://www.dw.com/id/perawat-lansia-banyak-dibutuhkan-kurang-apresiasi/a-69045684

Reeve, A., Tickle, A., & Golijani-Moghaddam, N. (2018). Are acceptance and commitment therapy-based interventions effective for reducing burnout in direct-care staff? A systematic review and meta-analysis. *Mental Health Review Journal*, 23(1), 31–44. https://doi.org/10.1108/MHRJ-11-2017-0052

Ruisoto, P., Ramírez, M. R., García, P.A., Costa, B. P., Vaca, L. S., & Suárez, V. J. C. (2021). Social support mediates the effect of burnout on health in health care professionals. *Front Psychol*, 11. https://doi.org/10.3389/fpsyg.2020.623587

Saniatuzzulfa, R., & Retnowati, S. (2015). Program "Pasien PANDAI" untuk meningkatkan optimisme pasien kanker. *Gadjah Mada Journal of Professional Psychology* (GamaJPP), 1(3), 163–172. https://doi.org/10.22146/gamajpp.9392

Santrock, J. W. (2019). *Life span development* (17th ed.). McGraw-Hill: United States of America. ISBN 978-1-260-05945-0

Soriano, A. V., Campos, E. O., Urquiza, J. L. G., Baena, L. R., Fuente, E. I. D. L., & Fuente, G. A., C. D. L. (2018). Impact of social support in preventing burnout syndrome in nurses: A systematic review. Japan Journal of Nursing Science, 15(5), 395–407. https://doi.org/10.1111/jjns.12269

Shahwan, S., Tay, E. H., Shafie, S., Tan, Y. B., Gunasekaran, T., S. C., S., P., Zhang, Y., Wang, P., Tan, S. C., & Subramaniam, M. (2024). The protective role of resilience and social support against burnout during the COVID-19 pandemic. Frontiers in Public Health, 12, 1374484. https://doi.org/10.3389/fpubh.2024.1374484

Towey-Swift, K. D., Lauvrud, K., & Whittington, R. (2023). Acceptance and commitment therapy (ACT) for professional staff burnout: a systematic review and narrative synthesis of controlled trials. J Ment Health, 32(2), 452–464. https://doi.org/10.1080/09638237.2021.2022628

Triwanti, S. P., Ishartono, & Gutama, A. S. (2014). Peran panti sosial Tresna Werdha dalam upaya meningkatkan kesejahteraan lansia. *Share Social Work Journal*, 4(2). https://doi.org/10.24198/share.v4i2.13072

Ulbrichtova, R., Svihrova, V., Tatarkova, M., Svihra Jr, J., Novak, M., & Hudeckova, H. (2022). Prevalence of burnout syndrome in COVID-19 and non-COVID-19 units in a university hospital: a cross-sectional study. *International Journal of Environmental Research and Public Health*, 19(19), 12664. https://doi.org/10.3390/ijerph191912664

Watanabe, T., Kondo, M., Sakai, M., & Akechi, T. (2023). Acceptance and commitment training for reducing burnout in medical students during a clinical clerkship in psychiatry and palliative care: A pilot study. *Journal of Contextual Behavioral Science*, 30, 20–30. https://doi.org/10.1016/j.jcbs.2023.08.009

Xie, X., Zhou, Y., Fang, J., & Ying, G. (2022). Social support, mindfulness, and job burnout of social workers in China. *Front. Psychol*, 13. https://doi.org/10.3389/fpsyg.2022.775679

Yulianto, H. (2020). Maslach burnout inventory human services survey (MBI-HSS) versi bahasa Indonesia: Studi Validasi Konstruk pada anggota polisi. JP3I (Jurnal Pengukuran Psikologi dan Pendidikan Indonesia), 9(1), 2020, 19–29. http://dx.doi.org/10.15408/jp3i.v9i1.13329

Yunisa, F. R., Andraika, P., Faturahman, D. M., & Casiavera, C. (2025). Dukungan Sosial Masyarakat Terhadap Lansia di Rumah Bahagia Bintan. PESHUM: *Jurnal Pendidikan, Sosial dan Humaniora*, 4(2), 1482–1487. https://doi.org/10.56799/peshum.v4i2.6919