



YOUNG-D

# Mindfulness for young onset dementia

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# Mindfulness for people with young onset dementia

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# Mindfulness for people with young onset dementia

## Lecture

### Introduction

Mindfulness is the practice of gently focusing awareness on the present moment by experiencing thoughts, feelings, bodily sensations and surrounding environment through a gentle nurturing lens. Paying more attention to the present moment – to thoughts and feelings and to the world around – can improve mental wellbeing (NationalHealthService).

Mindfulness and mindfulness-based interventions have been shown to effectively reduce anxiety, stress and sleep problems (Goyal et al., 2014; Green and Kinchen, 2021; Janssen et al., 2018). Additionally, mindfulness has been suggested as a preventive technique for Alzheimer's' disease (Giulietti et al., 2023).

- Mindfulness-based stress reduction programs (MBSR) have been researched as a potential holistic intervention for reducing stress by cultivating present awareness, regulating emotions and promoting positive thinking (Green and Kinchen, 2021).
- The effects of mindfulness were also described in a review study of Janssen et al. (2018). It was found that implementing mindfulness-based interventions in employees reduced levels of emotional exhaustion, stress, psychological distress, depression and anxiety. Additionally, improvements were observed in terms of personal accomplishment, self-compassion, quality of sleep and relaxation (Janssen et al., 2018).
- Mindfulness meditation programs showed moderate evidence of improving anxiety, depression and pain and low evidence of improving stress/distress and mental health-related quality of life (Goyal et al., 2014).

## Effects of mindfulness

Regular practice of mindfulness has been described to:

- lower heartrate and decreases blood pressure
- reduce cortisol levels and experienced stress/distress
- activate regions of the brain associated with attention emotional regulation and empathy
- foster overall mental and physical health
- decrease anxiety, depression and pain
- improve mental health-related quality of life
- improve quality of sleep and relaxation
- support personal accomplishment and self-compassion

Mindfulness can be practiced in various contexts:

- during a meditation session
- during daily activities like walking or eating to enhance focus
- as a part of therapy or a training session

Practicing mindfulness may also help individuals to notice signs of stress or anxiety earlier and to deal with them better. Mindfulness can be seen as an ongoing trait and practice of awareness leading to acceptance of thoughts which can lead to (new) actions.

## Mindfulness in dementia

Research has been conducted on the use of mindfulness-based interventions (MBI) in dementia, but evidence is limited (Berk et al., 2018). According to the review study of Berk et al. (2018). MBI did enhance well-being, resilience and autonomy in the participants with dementia in the included studies. A more recent study by Giulietti et al. (2023) found that MBI training is effective in improving the quality of life and preventing deterioration in patients with early-stage Alzheimer's dementia (Giulietti et al., 2023).

*, Some people with dementia and carers find mindfulness helpful as a way of relaxing and reflecting.“*

*(Livingwithdementiatoolkit.co.uk)*

# Workshop

## Mindful movement

- **Goal:** introduction of mindfulness in their daily walk
- **Method 1:** the participants are taken outside by the trainer
  - Plan a short walk (taking into account the physical level of the participants)
  - Choose a resting place (preferably in a natural or green area/park)
  - Ask the participants to focus on one thing (such as an object, a tree, a bench,...) and practice mindfulness by looking at it for one minute
  - Ask them to share which object they chose and why
  - Ask them to describe the object
  - End the exercise with a brief guided breathing exercise and return to the day care center/original location
- **Method 2:** if walking outdoors is not possible, the trainer will invite participants to engage in a mindful movement exercise indoors
  - The trainer should start the session with a short warm-up. This should include stretches for the arms, hands, upper body, neck, legs and feet
  - The trainer places several association cards about nature on the table (e.g. sea, mountains, sun, flowers, sand, lavender, grass, fields, moss, birds, farms,...)
  - Each participant is invited to select an association card they like and spend one minute looking at it
  - Then, participants are invited to describe what they saw/noticed
  - The exercise should end with a short guided breathing exercise



*Figure: association cards about nature*



## Mindful exercise

- **Goal:** an alternative exercise to introduce mindfulness into daily life situations
- **Method:** the trainer distributes a raisin or piece of chocolate to each participant, with prior consideration for any dietary intolerances of participants

The trainer instructs the participants to observe the object using their senses (watch it, listen to it, feel it, smell it, taste it, ...) for one minute

The trainer invites the participants to share their experiences with the group, including any unexpected experiences

- Examples of questions that can be asked:
  - *What did you see when holding the raisin/piece of chocolate?*
  - *What did you hear when holding the raisin/piece of chocolate?*
  - *What did you feel when holding the raisin/piece of chocolate?*
  - *What did you smell when holding the raisin/piece of chocolate?*
  - *What did you experience when tasting the raisin/piece of chocolate?*
  - •

## Storytelling



- **Description:** explaining what mindfulness is by telling a story
- **Goal:** telling a story can bring the group together and can provide rest in the group. It provides an opportunity for meaningful interaction, stimulation and enjoyment in the moment.
- **Method:** let everyone take a seat quietly. Read the story and explain what mindfulness is. Combining storytelling with mindfulness can really help people with dementia feel better. It makes them more focused, helps them feel present in the moment.
- **Tools:** a quiet environment. Sit in the middle of the group so that everyone sees and hears you.

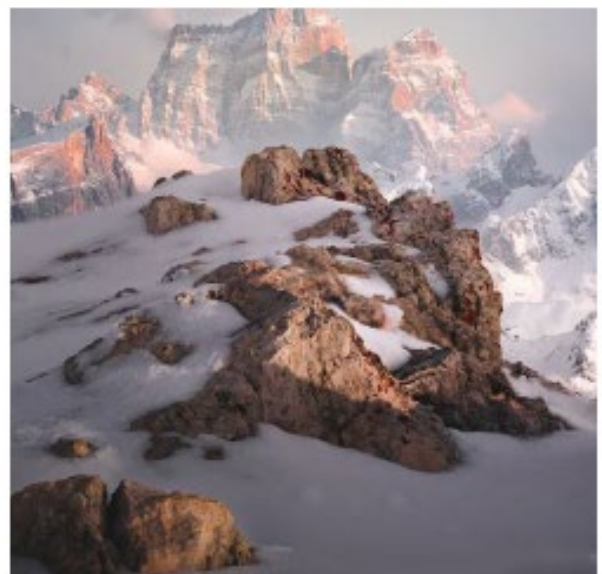
## Mindful walking



- **Description:** mindful walking, being outside and focus on one point
- **Goal:** by focusing on one point you practice your ability to consciously focus and maintain your attention. It helps you to be more aware of the present moment and your surroundings. It helps to keep your mind from wandering. By focusing on one point you can calm yourself and reduce stress. it gives you the opportunity to feel a deeper connection with yourself and the nature around you
- **Method:** plan a walk in the neighborhood. Try to get people to pay attention to sounds, different colors, shapes that they encounter. Then stop at one place. Ask the participant(s) to observe the area. Ask them to pick up something out of the landscape and look at it for one minute. All participants are invited to share what they choose and they are invited to elaborate on why they have chosen this. The following instructions can help to guide the exercise:  
  
*“Think of mindful walking as a slow walk without a destination or a purpose. All you have to do is walk and focus on the experiences that occur in the here and now. You can focus on the here and now by focusing your attention on the way you walk while walking. Notice how your feet touch the ground, how you roll and lift them. Then also pay attention to your body. How does your body feel while walking? You can also focus alternately on your different senses. What do you see around you? What do you smell? What do you hear? What do you feel?”*
- **Tools:** it’s important to find quiet and safe outdoor locations. Ensure that people with dementia feel comfortable while going outside. The nice thing about mindful walking is that you can do it anywhere, anytime. It is most pleasant to walk in nature as there you have an extensive view. That makes it easier to pick up something out of the landscape and look at it for one minute

## Imagery/visualisation

- **Description:** choosing cards with nature scenes
- **Goal:** choosing a nature picture as a focal point can help you focus attention, reduce stress, develop a sense of connection with nature and stimulate the imagination. It can help to calm down and relax
- **Method:** gather the participants around a large table. Spread the cards with nature scenes on the table. Let each participant choose a card. Ask to look closely at the card and think about why they chose that card. Ask additional questions such as: what do you like about the image? Does the image remind you of anything? Which colours do you like?
- **Tools:** you can easily make the cards (A5 format) with free to use images of nature



*Figure: association cards about nature*

## References

- Alzheimer Europe. (n.d.). *Dementia in Europe Yearbook 2019*. [https://www.alzheimer-europe.org/sites/default/files/alzheimer\\_europe\\_dementia\\_in\\_europe\\_yearbook\\_2019.pdf](https://www.alzheimer-europe.org/sites/default/files/alzheimer_europe_dementia_in_europe_yearbook_2019.pdf)
- Alzheimer Liga Vlaanderen vzw. (2024). *Jongdementie*. <https://www.alzheimerliga.be/nl/over-dementie/dementie/jongdementie>
- Alzheimer Nederland. (n.d.). *Dementie op jonge leeftijd*. <https://www.alzheimer-nederland.nl/dementie/jongdementie#:~:text=In%20Nederland%20hebben%20naar%20schatting,aan%20depressie%2C%20overspannenheid%20of%20relatieproblemen>
- Berk, L., Warmenhoven, F., Van Os, J., & Van Boxtel, M. P. (2018). Mindfulness training for people with dementia and their caregivers: rationale, current research, and future directions. *Frontiers in Psychology*, *9*(982), 1-10. <https://doi.org/10.3389/fpsyg.2018.00982>
- Carter, J. E., Oyebode, J. R., & Koopmans, R. T. C. M. (2017). Young-onset dementia and the need for specialist care: a national and international perspective. *Aging & Mental Health*, *22*(4), 468–473. <https://doi.org/10.1080/13607863.2016.1257563>
- Cerejeira, J., Lagarto, L., & Mukaetova-Ladinska, E. B. (2012). Behavioral and psychological symptoms of dementia. *Frontiers in Neurology*, *3*(73). <https://doi.org/10.3389/fneur.2012.00073>
- Chung, K. F., Lee, C. T., Yeung, W. F., Chan, M. S., Chung, E. W. Y., & Lin, W. L. (2017). Sleep hygiene education as a treatment of insomnia: a systematic review and meta-analysis. *Family Practice*, *35*(4), 365–375. <https://doi.org/10.1093/fampra/cmz122>
- Cipriani, G., Lucetti, C., Danti, S., & Nuti, A. (2014). Sleep disturbances and dementia. *Psychogeriatrics*, *15*(1), 65–74. <https://doi.org/10.1111/psyg.12069>
- Cloak, N., & Khalili, Y. A. (2022, July 21). *Behavioral and psychological symptoms in dementia*. StatPearls - NCBI Bookshelf. <https://www.ncbi.nlm.nih.gov/books/NBK551552/>
- Danish Dementia Research Centre. (2023, February 27). *Age and gender distribution in dementia*. <https://videnscenterfordemens.dk/en/age-and-gender-distribution-dementia>
- Das, R. R., Sankar, J., & Kabra, S. K. (2021). Role of breathing exercises in Asthma—Yoga and Pranayama. *Indian Journal of Pediatrics*, *89*(2), 174–180. <https://doi.org/10.1007/s12098-021-03998-w>
- DEEP. (2019). *Dementia Enquirers Research Pack: Carrying out your research project. Simple guidance and ideas for DEEP groups*. <https://www.dementiavoices.org.uk/wp-content/uploads/2019/06/Dementia-Enquirers-Research-Pack.pdf>

- Deutsche Alzheimer Gesellschaft e.V. (n.d.). *Demenz im jüngeren Lebensalter*.  
<https://www.deutsche-alzheimer.de/demenz-wissen/demenz-im-juengeren-lebensalter#:~:text=Auch%20wenn%20die%20Zahl%20der,zwischen%2020.000%20und%2024.000%20Menschen>
- Deutsches Zentrum für Neurodegenerative Erkrankungen (2023). *Faktenzentrale: Demenz*.  
<https://www.dzne.de/aktuelles/hintergrund/faktenzentrale/>
- Draper, B., & Withall, A. (2016). Young onset dementia. *Internal Medicine Journal*, 46(7), 779–786.  
<https://doi.org/10.1111/imj.13099>
- Expertisecentrum Dementie Vlaanderen. (n.d.). *Prevalentie*. <https://www.dementie.be/home/wat-is-dementie/prevalentie/#:~:text=Eerder%20publiceerden%20we%20daar%20de,personen%20met%20jongdementie%20zullen%20zijn>
- Fadil, H., Borazanci, A., Haddou, E. a. B., Yahyaoui, M., Korniychuk, E., Jaffe, S. L., & Minagar, A. (2009). Chapter 13 Early onset Dementia. In *International review of neurobiology* (pp. 245–262).  
[https://doi.org/10.1016/s0074-7742\(09\)00413-9](https://doi.org/10.1016/s0074-7742(09)00413-9)
- Geiger-Brown, J., Rogers, V., Liu, W., Ludeman, E., Downton, K., & Diaz-Abad, M. (2015). Cognitive behavioral therapy in persons with comorbid insomnia: A meta-analysis. *Sleep Medicine Reviews*, 23, 54–67. <https://doi.org/10.1016/j.smrv.2014.11.007>
- Giulietti, M. V., Spatuzzi, R., Fabbietti, P., & Vespa, A. (2023). Effects of Mindfulness-Based Interventions (MBIs) in Patients with Early-Stage Alzheimer’s Disease: A Pilot Study. *Brain Sciences*, 13(3), 484. <https://doi.org/10.3390/brainsci13030484>
- Goyal, M., Singh, S., Sibinga, E., Gould, N. F., Rowland-Seymour, A., Sharma, R., Berger, Z., Sleicher, D., Maron, D. D., Shihab, H. M., Ranasinghe, P. D., Linn, S. T., Saha, S., Bass, E. B., & Haythornthwaite, J. A. (2014). Meditation programs for psychological stress and well-being. *JAMA Internal Medicine*, 174(3), 357-368. <https://doi.org/10.1001/jamainternmed.2013.13018>
- Green, A. A., & Kinchen, E. (2021). The effects of mindfulness meditation on stress and burnout in nurses. *Journal of Holistic Nursing*, 39(4), 356–368.  
<https://doi.org/10.1177/08980101211015818>
- Hamasaki, H. (2020). Effects of Diaphragmatic Breathing on Health: A Narrative review. *Medicines*, 7(10), 65. <https://doi.org/10.3390/medicines7100065>
- Hendriks, S., Peetoom, K., Bakker, C., Koopmans, R. T., Van Der Flier, W., Papma, J. M., Verhey, F. R., De Vugt, M., & Köhler, S. (2022). Global incidence of young-onset dementia: A systematic

review and meta-analysis. *Alzheimer's & Dementia*, 19(3), 831–843.

<https://doi.org/10.1002/alz.12695>

- Hendriks, S., Peetoom, K., Bakker, C., Van Der Flier, W. M., Papma, J. M., Koopmans, R. T., Verhey, F. R., De Vugt, M., Köhler, S., Withall, A., Parlevliet, J. L., Uysal-Bozkir, Ö., Gibson, R. C., Neita, S. M., Nielsen, T. R., Salem, L. C., Nyberg, J., Lopes, M. A., Domínguez, J., . . . Ruano, L. (2021). Global prevalence of Young-Onset dementia. *JAMA Neurology*, 78(9), 1080-1090.  
<https://doi.org/10.1001/jamaneurol.2021.2161>
- James, T., James, D., & Larkey, L. (2021). Heart-focused breathing and perceptions of burden in Alzheimer's caregivers: An online randomized controlled pilot study. *Geriatric Nursing*, 42(2), 397–404. <https://doi.org/10.1016/j.gerinurse.2021.02.006>
- Janssen, M., Heerkens, Y., Kuijer, W., Van Der Heijden, B., & Engels, J. (2018). Effects of Mindfulness-Based Stress Reduction on employees' mental health: A systematic review. *PLoS One*, 13(1), e0191332. <https://doi.org/10.1371/journal.pone.0191332>
- Jerath, R., Beveridge, C., & Barnes, V. A. (2019). Self-Regulation of breathing as an adjunctive treatment of insomnia. *Frontiers in Psychiatry*, 9(780), 1-7.  
<https://doi.org/10.3389/fpsy.2018.00780>
- Jin, J. W., Nowakowski, S., Taylor, A. E., Medina, L. D., & Kunik, M. E. (2021). Cognitive Behavioral therapy for mood and insomnia in persons with dementia. *Alzheimer Disease and Associated Disorders*, 35(4), 366–373. <https://doi.org/10.1097/wad.0000000000000454>
- Koffel, E., Koffel, J., & Gehrman, P. (2015). A meta-analysis of group cognitive behavioral therapy for insomnia. *Sleep Medicine Reviews*, 19, 6–16. <https://doi.org/10.1016/j.smr.2014.05.001>
- Kraus, C. A., Seignourel, P. J., Balasubramanyam, V., Snow, A. L., Wilson, N., Kunik, M. E., Schulz, P. E., & Stanley, M. A. (2008). Cognitive-Behavioral Treatment for anxiety in patients with dementia: two case studies. *Journal of Psychiatric Practice*, 14(3), 186–192.  
<https://doi.org/10.1097/01.pra.0000320120.68928.e5>
- Living with dementia toolkit. (2024, January 10). *What is mindfulness?*  
<https://livingwithdementiatoolkit.org.uk/stay-active/relaxing-through-mindfulness/#:~:text=Many%20mindfulness%20meditations%20involve%20focusing,way%20of%20relaxing%20and%20reflecting.>
- Mendez, M. F. (2017). Early-Onset Alzheimer disease. *Neurologic Clinics*, 35(2), 263–281.  
<https://doi.org/10.1016/j.ncl.2017.01.005>



- Min, J., Rouanet, J., Martini, A. C., Nashiro, K., Yoo, H. J., Porat, S., Cho, C., Wan, J., Cole, S. W., Head, E., Nation, D. A., Thayer, J. F., & Mather, M. (2023). Modulating heart rate oscillation affects plasma amyloid beta and tau levels in younger and older adults. *Scientific Reports*, *13*(3967). <https://doi.org/10.1038/s41598-023-30167-0>
- Naik, G. S., Gaur, G. S., & Pal, G. K. (2018). Effect of modified slow breathing exercise on perceived stress and basal cardiovascular parameters. *International Journal of Yoga*, *11*(1), 53–58. [https://doi.org/10.4103/ijoy.ijoy\\_41\\_16](https://doi.org/10.4103/ijoy.ijoy_41_16)
- National Health Service. NHS. (2022, September 14). *Mindfulness*. <https://www.nhs.uk/mental-health/self-help/tips-and-support/mindfulness/>
- Ó’Caoimh, R., Mannion, H., Sezgin, D., O’Donovan, M., Liew, A., & Molloy, D. W. (2019). Non-pharmacological treatments for sleep disturbance in mild cognitive impairment and dementia: A systematic review and meta-analysis. *Maturitas*, *127*, 82–94. <https://doi.org/10.1016/j.maturitas.2019.06.007>
- Pawlowski, M., Johnen, A., & Duning, T. (2020). Früh beginnende Demenzen. *Der Nervenarzt*, *91*(10), 936–945. <https://doi.org/10.1007/s00115-020-00967-0>
- Richardson, A., Pedley, G., Pelone, F., Akhtar, F., Chang, J., Muleya, W., & Greenwood, N. (2016). Psychosocial interventions for people with young onset dementia and their carers: a systematic review. *International Psychogeriatrics*, *28*(9), 1441–1454. <https://doi.org/10.1017/s1041610216000132>
- Robinson, A., De Boos, D., & Moghaddam, N. (2023). Acceptance and commitment therapy (ACT) for people with dementia experiencing psychological distress: A hermeneutic single-case efficacy design (HSCED) series. *Counselling and Psychotherapy Research*, *23*(4), 1108–1122. <https://doi.org/10.1002/capr.12646>
- Roman De Mettelinge, T., Calders, P., & Cambier, D. (2021). The Effects of Aerobic Exercise in Patients with Early-Onset Dementia: A Scoping Review. *Dementia and Geriatric Cognitive Disorders*, *50*(1), 9–16. <https://doi.org/10.1159/000516231>
- Salari, N., Khazaie, H., Hosseinian-Far, A., Khaledi-Paveh, B., Ghasemi, H., Mohammadi, M., & Shohaimi, S. (2020). The effect of acceptance and commitment therapy on insomnia and sleep quality: A systematic review. *BMC Neurology*, *20*(300), 1-18. <https://doi.org/10.1186/s12883-020-01883-1>

- Stella, F., Radanovic, M., Balthazar, M. L. F., Canineu, P. R., De Souza, L. C., & Forlenza, O. V. (2014). Neuropsychiatric symptoms in the prodromal stages of dementia. *Current Opinion in Psychiatry*, 27(3), 230–235. <https://doi.org/10.1097/ycp.0000000000000050>
- Tavoian, D., & Craighead, D. H. (2023). Deep breathing exercise at work: Potential applications and impact. *Frontiers in Physiology*, 14, 1-7. <https://doi.org/10.3389/fphys.2023.1040091>
- Van Vliet, D., Persoon, A., Bakker, C., Koopmans, R. T., De Vugt, M. E., Bielderma, A., & Gerritsen, D. L. (2017). Feeling useful and engaged in daily life: exploring the experiences of people with young-onset dementia. *International Psychogeriatrics*, 29(11), 1889–1898. <https://doi.org/10.1017/s1041610217001314>
- Vandekerckhove, M., & Wang, Y. (2018). Emotion, emotion regulation and sleep: An intimate relationship. *AIMS Neuroscience*, 5(1), 1–17. <https://doi.org/10.3934/neuroscience.2018.1.1>
- Vanderlinden, J., & Musch, L. (2019). *Angst, stress en slaapproblemen bij jongdementie*. Odisee University for Applied Sciences. <https://www.odisee.be/onderzoeksprojecten/jong-d-stress-angst-en-slaapproblemen-bij-jongdementie>
- Vanderlinden, J., & Musch, L. (2024). *YOUNG-D. Project outline*. Odisee University for Applied Sciences. <https://www.odisee.be/node/50151>
- Vanderlinden, J. (2024). *A behavioural program for people with young onset dementia in order to cope with anxiety, stress and sleep problems. Trainers' Manual*. Odisee University for Applied Sciences. <https://www.odisee.be/node/50151>

