

Ageing Well Public Talk Series 2023/24

Talk 9. Making friends in blue and green spaces.

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- 22nd May 2024

Slide 3: *The many benefits of urban green spaces: from provision to wellbeing*

- Image: city landscape ©RHS, by Helen McLain
- Yoseph Araya, Senior Lecturer in Ecology & Environmental Sciences
- X account: @YNAraya

Slide 4: Parks are a typical component of an urban settlement

- Image: Hyde Park, London by George Sidney Sheperd (1784-1862). © Yale Centre for British Art. <https://britishart.yale.edu/collections/using-collections/using-images>

Slide 5: Why now

- The world has been rapidly **urbanising** >50% live in cities.
 - **Nature is at peril** from destruction, change & now climate emergency.
 - Nevertheless, **nature still thrives** in increasingly human environments.
- Images:
- 'Cities Nature's New Wild', BBC logo, alligator with skyscrapers in the background ©BBC Two
 - Brick wall with moss, ©MabelAmber, Pixabay
 - Landscape image depicting deforestation ©Bernhard_Schuermann, Pixabay

Slide 6: What are the benefits

Ecosystem services are benefits provided by our environment, ranging from resource, ecological, economical to social and to the cultural.

There is increasing utilisation of urban green spaces by various stakeholders and for various activities.

Images:

- 'Cultural value', landscaped garden ©Showaze, Pixabay
- 'Water reservoir' ©OLU, Wikipedia
- 'Pollination', bee and yellow flowers ©Andrew Mandemaker, Wikipedia

Slide 7:

The **economic benefits** of nature is also well recognised e.g. from urban trees calculated by <https://treezilla.org> in Milton Keynes.

Image: Milton Keynes map with data from Treezilla (Last updated 6th May 2024)

- Annual savings £58,820
- Total trees 21,003
- Avoided run off 662 m³/year, £854
- Carbon dioxide removed 23,026 kg/year, £48,912
- Water intercepted 4,004 m³/year, £5,165

- Air quality improved 83,222 g/year, £2,438

Slide 8:

Thinking in depth, elicits many aspects and stakeholders meaning **ecosystem values** beyond mere ecosystem service.

Diagram - Gunton et al. (2017) TREE.

- Centre section – Ecosystem in time & space
 - Second circular layer, clockwise from top: Social, economic, aesthetic, rural, altruistic, certitudinal, physical, biotic, sensory, analytical, formative, symbolic.
 - Third circular layer, clockwise from top: Local people, businesses, cultural associations, policymakers, volunteers, campaigners, and owners & managers, animals, healthcare providers, scientific community, educators, journalists.
 - Fourth circular layer, clockwise from top: Relational values, option value, inspirational value, bequest value, care value, existence value, protective value, use value, emotive value, scientific value, educational value; historic value, symbolic value.

Slide 9: Types of Urban Greenspaces

Victorian public parks in urban areas have been around since 1840's, designed to create physically healthy spaces and for walking and promenading.

Spider diagram:

- Centre section – Urban spaces
 - Clockwise from top right:
 - Playing fields, playgrounds
 - Allotments, community orchards
 - Meadows, woodlands
 - Ponds, lakes, rivers
 - Botanic gardens
 - Parks

Slide 10: Greenspaces in Milton Keynes

Established as an independent charity in 1992, cares for MK's ancient woodlands, lakes, river valleys for ever, for everyone.

The Parks Trust, Milton Keynes

- >2500 ha
- 25% of urban area
- > £140 million endowment

Slide 11: Nature for wellbeing

Both conscious and unconscious **benefits**:

- Physical exercise
- Making friends avoiding loneliness
- Natural soundscapes and smell helping calm
- Mental health and mood
- Engaging dementia sufferers and carers

- Exercising cognitive skills e.g. appreciating season, wildlife
- Ecotherapy

To **engage** effectively with nature:

- Learn about nature
- Go out and experience it
- Meet people and talk in greenspaces
- Work with societies and interested bodies

Diagram: The five pathways to nature connection (from left to right)

- Senses
- Emotion
- Compassion
- Meaning
- Beauty

Slide 12: Example of engaging with nature

- Images of nature: herons, geese, ducks, trees etc. © Jane Harris, MK
- “Isn’t he beautiful”
- “Geese, they are taking over”
- “Today’s nature”
- Geese had a party at the lake yesterday”

Slide 13: OU free learning to engage with nature

- OenLearn free course Neighbourhood nature: [Neighbourhood nature | OpenLearn - Open University](#)

Slide 14: *Pet ownership in older years*

- Image: Outstretched hand holding a dog’s paw, image by Petra via Pixabay (CC Zero Licence)
- Dr Gráinne O’Connor, Research Assistant, WELS

Slide 15: Before we begin...

- Image: lit tealight candles

Slide 16: A Nation of Animal Lovers

- Human-Animal Interaction (HAI)
- What do we mean by a ‘Pet’?
- Five Pillars for Ageing well with pets.

Slide 17: Some we love, some we hate, some we eat...

Context:

- Western concept & Culture
- Three worlds collide
- Domestication /Biophilia Theory
- Biopsychosocial model
- Special relationship

Images:

- Small dog being groomed. Image by Vilve Roosioks via Pixaby (CC Zero license)
- Bowl with steam rising. Image by Waldemar Bajda via Pixaby (CC Zero license)

- Two cats. Image by Lukáš Jančivía via Pixabay (CC Zero license)

Slide 18:

Bar graph: Share of households owning a pet in the United Kingdom (UK) from 2012 to 2023. (8,901 respondents; 18 years old and older) ©Statista

- 2012: 47%
- 2013: 48%
- 2014: 47%
- 2015: 46%
- 2016: 40%
- 2017: 44%
- 2018: 45%
- 2019: 40%
- 2020: 41%
- 2021: 59%
- 2022: 62%
- 2023: 57%

Slide 19: Top Ten Pets in the UK 2024

- Dogs: approximately 13.5 million dogs as pets in the UK, with 36% of households owning a dog.
- Cats: approximately 12.5 million pet cats in the UK, with 29% of all households having a cat.
- Indoor Birds: approximately 1.5 million birds kept as indoor pets in the UK, with 3% of households keeping them.
- Domestic Fowl: approximately 1.3 million domestic fowl as pets in the UK, with 1.6% of households having at least one.
- Rabbits: 1 million rabbits as household pets in the UK, with 1.6% of households having at least one.
- Tortoises & Turtles: approximately 700,000 tortoises and turtles being kept as pets in the UK, with 1.6% of households having one.
- Horses & Ponies: approximately 700,000 horses as pets in the UK and 1.5% of households have one.
- Guinea Pigs: approximately 700,000 guinea pigs as pets in the UK, with 1.2% of households having at least one.
- Hamsters: approximately 600,000 hamsters as pets in the UK, with 1.5% of households having a pet lizard.
- Snakes: approximately 600,000 pet snakes in the UK, with 1.3% of households having one.

Slide 20: A special relationship

- Dogs (*Canis lupus familiaris*) were the first animals to be domesticated (twice) in Europe (16,000 years ago) & in Asia (14,000 years ago) from 2 separate wolf lineages.
- Cats (*Felis silvestris catus*) were also domesticated (twice) in SW Asia (10,000 years ago) & in Egypt (3,500 years ago)
- Dogs were the first domesticated animals, cooperating with humans by hunting and guarding livestock.

- Cats were domesticated as predators of rodents, and they lived near human habitation when humans began to settle and farm crops.
- Studies indicate when a dog's owner gazes into their dog's eyes oxytocin is released and vice versa, enhancing this bidirectional bonding & attachment between dogs and humans.
- Image of a dog. Image by Ingram Image Ltd. (With permission.)

Slide 21: Pet and pillars: What are the benefits of pet ownership in older years?

- NUTRITION
- HYDRATION
- PHYSICAL ACTIVITY
- COGNITIVE STIMULATION
- SOCIAL STIMULATION
- Image of older person using a walking frame and walking a dog. Image by Manfred Antranias Zimmer via Pixaby (CC Zero License)

Slide 22: Physical Activity and Pet Ownership

More rigorous research needed. Mixed picture. 1970's, 2012, post 2012 to the present. Ioannidis (2005) argues that areas of research that typically contain small homogeneous sample sizes, small effect sizes and a wide diversity of research designs (such as those in HAI research), will exhibit conflicting results.

- Physical benefits Cardiovascular Health Statement from the American Heart Association on Cardiovascular Disease (CVD) (Levine et al., 2013). Pet ownership, particularly dog ownership, is probably associated with decreased CVD risk (Level of Evidence: B). Pet ownership, particularly dog ownership, may have some causal role in reducing CVD risk (Level of Evidence: B).
- Increased physical activity (22 minutes/day extra) for dog walkers. 150 minutes per week recommended.
- More specific to the elderly population, Friedman et al. (2013) reported that just the presence of a pet, and in particular a dog, improved ambulatory blood pressure in older (50 – 83 years) adults with hypertension.
- Increased survival & recovery post heart attack dog vs pet vs cat
- Stress reduction Influence of pets can include decreases in biological stress indicators such as cortisol, blood pressure, and heart rate. By reducing stress, pet ownership may minimise deterioration in cognition, more for those who are mildly cognitively impaired than those who are not. Higher chronic stress was associated with faster cognitive decline in individuals with moderate cognitive impairment but not in cognitively normal participants over 3 years (Friedmann et al., 2023)
- Less depression with pet owners and found to be a protective factor in preventing suicide (Young et al., 2020)

Slide 23: Long Term Health Conditions (LTCs)

- 15 million people in England live with LTCs.
- 50% of all GP appointments and 70% of all hospital bed days
- 70% of acute and primary care budgets in England.
- Morbidity/Comorbidity/Multimorbidity increases with age.

The need to improve the treatment and management of long-term conditions is the most important challenge facing the NHS today.

Slide 24: Cognitive Stimulation

- Little research focused on deterioration in cognitive function.
- Recent study examined the relationship of pet, dog, cat ownership, and dog walking to changes in cognitive function among 637 generally healthy community-dwelling older adults (185 pet owners) aged 50–100 years ($M = 68.3$, $SD = 9.6$) within the Baltimore Longitudinal Study of Aging (BLSA).
- Cognitive assessments every 1–4 years over 1–13 years ($M = 7.5$, $SD = 3.6$) include the California Verbal Learning (Immediate, Short, Long Recall)
- Deterioration in cognitive function with age was slower for pet owners than non-owners (Immediate, Short, Long Recall; Trails A,B,B-A; Naming; Digit Symbol); dog owners than non-owners (Immediate, Short Recall; Trails A,B; Naming; Digit Symbol); and cat owners than non-owners (Immediate, Short, Long Recall; Naming), controlling for age and comorbidities.
- Among dog owners ($N = 73$) walkers experienced slower deterioration than non-walkers.
- Pet ownership and dog walking contribute to maintaining cognitive function with ageing, as a society we need to support pet ownership and dog walking in design of senior communities and services.
- (Friedmann et al., 2023)

Slide 25: Social Stimulation

- 8754:6
- Image of a woman embracing a dog. Image by The Cinnamon Trust - <https://cinnamon.org.uk/wp-content/>

Slide 26: Loneliness and social support

- Human–Animal Interactions, pet ownership and pet attachment can help reduce feelings of loneliness (Krause-Parello, 2008; Krause-Parello & Gulick, 2015; Smith, 2012; Stanley et al., 2014).
- Pets can provide a strong emotional and affectionate relational bond (Ainsworth, 1989; Bowlby, 1969, 1973; Collis & McNicholas, 1998). Support provided by companion animals involves shared leisure and other activities primarily for the intrinsic goal of enjoyment (Rook, 1987).
- Living with a pet may be an alternative and easily accessible coping mechanism to relieve loneliness for older adults living in the community. Research findings suggest that pet attachment support can mediate the effect of loneliness on general health (Krause-Parello, 2008), and it was found that older adults experienced less loneliness from a loss when they rated a higher attachment to their pet than individuals who rated lower pet attachment (Krause-Parello & Gulick, 2013).
- People with pets, compared with those without pets, reported a 36% reduction in loneliness when controlling for age, living status (alone or with someone), and mood (feelings of happiness) (Stanley et al., 2014). Therefore, pet ownership may attenuate loneliness and enhance wellbeing through a sense of social connectedness and belonging (Stanley et al., 2014).
- Older adults cope with loneliness by reaching out to others, helping those in need, and seeking companionship with pets (Smith, 2012). Dogs can provide company during a walk, and cats might seek physical contact through rubbing on someone. These various

interactions with pets provide older adults with companionship that in turn can decrease their loneliness (Smith, 2012).

- Overall findings from these studies suggest that when older adults experience loneliness, those with pets report less loneliness and seek out their companionship, implying that companion animals can be an effective mediator for reduced loneliness.

Slide 27: Social Capital

- Image of dog walkers at a park. Image by Mircea Iancu via Pixabay (CC Zero License)
- Social capital generally describes social networks as having value and forming a framework upon which individuals in a community establish reciprocity and are inclined to do things for one another.
- Social capital (as contrasted to other valued commodities in a community such as human capital, financial capital, or technological capital) is the connectivity among people, based on trust, norms, and networks, that enhances cooperation for mutual benefit.
- Strong social capital promotes social, economic, and physical well-being through the trusting, supportive relationships that develop among residents. Pet ownership is significantly associated with higher levels of social capital.
- Results are not confined to dog owners nor dog walkers. People with dogs are perceived to be more trustworthy and the presence of dog walkers in an area makes people feel safer.
- Pets are an under-recognised conduit for building social capital.

Slide 28: What are the challenges of pet ownership in older years?

- If/when an older adult suffers a health problem, or when the pet may become ill and requires potentially expensive veterinary care, older adults may require support to responsibly maintain their pet in their home. The 'Cost of Loving Crisis'.
- An older adult may forego their own medical treatment if they do not have access to pet care because they are concerned that an extended hospital stay will require them to give up their animal.
- An older adult with declining cognition may not fully understand or be able to implement the daily duties required of responsible pet ownership. In one case, the human's health may suffer and in the other case, the pet's health may suffer.
- Housing - Recent estimates suggest that nearly half of all households in relative poverty are owner occupied, and of these 1 million are headed by someone aged 55 and over. The proportion of privately rented homes headed by someone aged 55-64 increased from 6.3% in 2010/11 to 11.3% in 2020/21. In the last year, it has risen particularly sharply, from 9.9% to 11.3%. Renting privately means higher levels of financial insecurity and the potential for more pensioner poverty. The private rented sector also has the highest proportion of poor-quality homes.
- *Renters (Reform) Bill (2024) & Pets Impact yet to be seen.
- Image of a man embracing a cat. Image by Alexandra Koch via Pixabay (CC Zero License)

Slide 29: Challenges continued...

- LOSS AND BEREAVEMENT
- DISENFRANCHISED GRIEF
- AMBIGUOUS GRIEF
- COMPLICATED GRIEF
- CONTINUING BONDS
- Image of a dog in woodland. Image by Meg... via Pixabay (CC Zero License)

Slide 30: Help and Support

- DOGS TRUST <https://www.dogstrust.org.uk> Canine Care Card, Behaviour Support line.
- The Cinnamon Trust <https://cinnamon.org.uk> Free voluntary dog walking support for owners who can no longer exercise their pets themselves. 65+ or with terminal illness, care card, foster, updates & visits.
- National Animal Welfare Trust <https://www.nawt.org.uk>
- Dementia Dog <https://dementiadog.org> Collaboration between Alzheimer Scotland & DfG.
- PDSA <https://www.pdsa.org.uk/what-we-do/treat> Low Cost/No Cost Veterinary Care e.g., receipt of pension in house band A-D
- RSPCA <https://www.rspca.org.uk/whatwedo/howweare> Welfare, microchip, neuter, rehome, foster.

Support if you have experienced pet loss:

- BLUE CROSS <https://www.bluecross.org.uk> Home Direct, Pet food bank, Pet advice A-Z, Rehome,
- Blue Cross Pet Loss Support 30 years, help to cope with the loss of a pet, either through death, enforced separation or theft. With a free and confidential helpline, webchat, email and Facebook group. 8.30am – 8.30pm, 365 days a year
- Paws to listen <https://www.cats.org.uk/what-we-do/grief/advice>
- Image of a pet bed and collar in front of a fireplace. Image Credit: <https://www.bluecross.org.uk>

Slide 31:

- Thank you for listening.
- Any questions?
- Image of a puppy. Image by tolltill: via Pixabay (CC Zero license)

Slide 32: Selected References

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Slide 33:

- Ageing Well series of Public Talks
- “Being mindful of eating well, hydration, physical activity, learning new things and social connections can delay the decline caused by ageing. Come and join us for the series of public talks with the title Ageing Well”

Slide 34: Summary of related resources to The Ageing Well Public Talk Series

- Podcasts
- Vseteckova J & King J (2020) COVID-19 Interview podcast for The Retirement Café: [‘Ageing Well Under Lockdown’](#)
- Vseteckova J & Broad E (2020) Podcast – Open University & The Parks Trust [Keep Me Walking - researching with people living with dementia and their carers](#) –
- Vseteckova J (2020) Podcast - [Areas of research with The Open University](#)
- Broad E, Methley A & Vseteckova J (2021) Podcast OU & The Parks Trust & Northamptonshire Healthcare NHS Foundation Trust - [Spotter sheet and mindful walking](#).
- Vseteckova J, Methley A, Broad E (2021) Podcast OU & The Parks Trust & Northamptonshire Healthcare NHS Foundation Trust [Preventing brain decline while ageing](#)

Slide 35:

- Methley A, Broad E, Vseteckova J (2021) Podcast OU & The Parks Trust & Northamptonshire Healthcare NHS Foundation Trust [Walking therapy](#)
- Vseteckova J, Methley A, Broad (2021) Podcast OU & The Parks Trust & Northamptonshire Healthcare NHS Foundation Trust [Understanding our memory](#)
- Araya Y, Broad E, Vseteckova J (2022) [Engaging with our environment](#)
- Joannidi H, Araya Y, Broad E & Vseteckova J (2022) [Sense of self during ageing: how mindfulness and nature can help](#)
- The above podcasts can be also seen on [The Parks Trust YouTube Channel](#)

Slide 36:

- Vseteckova J (2020) [Ageing Well Public Talks Series](#)
- Vseteckova J (2019) [5 reasons why exercising outdoors is great for people who have dementia](#)
- Vseteckova J (2019) [Depression, mood and exercise](#)
- Vseteckova J (2019) [Five Pillars for Ageing Well](#)
- Vseteckova J (2020) [Ageing Brain](#)

Slide 37:

- Vseteckova J (2022) [Pharmacotherapy while ageing](#)
- Joannidi H, Araya Y, Broad E & Vseteckova J (2022) [Sense of Self during ageing – how mindfulness and nature can help](#)

- Mehta S (2022) [Medicines and personalisation while ageing](#)
- Gale B (2022) [How can we prepare for death while ageing?](#)
- Gale B (2022) [Valuing death at home: making preparations](#)

Slide 38:

- Methley A & Vseteckova J & Jones K (2020) [Green & Blue & Outdoor spaces](#)
- Vseteckova J, Borgstrom E, Whitehouse A, Kent A, Hart A (2021) [Advance Care Planning \(ACP\)](#)
- Vseteckova J (2020) [Walking the Parks with The OU and The Parks Trust](#)
- Vseteckova J, Methley A, Broad E (2021) [Understanding our memory](#)
- Araya Y, Broad E, Vseteckova J (2022) [Engaging with our environment](#)

Slide 39: Care and caring related

- Vseteckova J, (2020) [How to age well, while self-isolating](#)
- Vseteckova J, (2020) [SHORT FILM - Ageing Well in Self-Isolation](#)
- Vseteckova J, (2020) [ANIMATION - Keeping healthy in Self-Isolation](#)
- Vseteckova J et al (2020)
- [COVID-19 The effects of self-isolation and lack of physical activity on carers](#)
- Taverner P, Larkin M, Vseteckova J, et al. (2020) [Supporting adult carers during COVID-19 pandemic](#)

Slide 40:

- Robb M, Penson M, Vseteckova J, et al. (2020) [Young carers, COVID-19 and physical activity](#)
- Penson M, Vseteckova J et al. (2020) [Older Carers, COVID-19 and Physical Activity](#)
- Vseteckova J & Methley A (2020) [Acceptance Commitment Therapy \(ACT\) to help carers in challenging COVID-19 times](#)

Slide 41:

- AGEING WELL PUBLIC TALK SERIES WEBSITE
- [Ageing Well Public Talks' Series 2023/2024](#) repository on ORDO Collections
- ['Ageing Well Public Talks' Series 2022/2023](#) repository on ORDO Collections
- ['Ageing Well Public Talks' Series 2021/2022](#) repository on ORDO Collections
- ['Ageing Well Public Talks' Series 2020/2021](#) repository on ORDO Collections
- ['Ageing Well Public Talks' Series 2019/2020](#) repository on ORDO Collections
- [Midlife MOT OpenLearn Course](#)
- OpenLearnCreate Course on ['Ageing Well' 2019/2020](#)
- [Home exercise no equipment – no problem](#) Blog