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Bridging the ivory tower gap: translating evidence-based research on healthier ageing for public audiences using the Five Pillars for Ageing Well educational model

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Abstract

The academic language of evidence-based research on ageing well can feel distant from the lived experiences of older people contending with cost-of-living challenges or caring responsibilities. An 'Ivory Tower' gap acts as a barrier to educating older people about lifestyle changes that promote healthier ageing. Since 2019, the Ageing Well Public Talk Series (AWPTS) team at The Open University (OU) in the United Kingdom (UK) has pioneered a collaborative, co-produced approach to addressing this gap. Structured around the Five Pillars for Ageing Well (nutrition, hydration, physical activity, social and cognitive stimulation), AWPTS is an evidence-based educational model which translates current research from the field of ageing into 'bite-sized' information easily manageable by its target audiences. Over the past three years, an ongoing series of public talks based around the Five Pillars were delivered by the AWPTS team in the UK and worldwide. The AWPTS along with a portfolio of free resources (podcasts, short films, short accessible articles, short online OpenLearn courses and other resources) were accessed by over 80,000 people globally. The AWPTS team built a network of stakeholder health and voluntary organisations and members of the public across the UK. This paper describes how this public health educational intervention continues to develop and evolve post Covid-19. Through feedback and reflection, we outline the impact of the AWPTS on individuals and communities who have engaged with the Five Pillars learning model, and how this model can be expanded to promote sustained behaviour change around healthier ageing at a societal level.

Introduction

In the United Kingdom (UK), 16 million people (24%) of a total population of 67 million are currently over the age of 60 years, rising to an estimated 19.8 million (28%) by 2030. Advances in medicine and better public health measures have contributed to the overall increase in life expectancy and a decrease in mortality globally (Salomon et al., 2012). This has resulted in a shift of perspective which now regards older people as an asset for their families, the wider community and society as a whole (Foster & Walker, 2015; WHO, 2015, 2017, 2020). The World Health Organisation (WHO) has embraced this positive concept of ageing, defining active ageing as “the process of optimising opportunities for health, participation, and security in order to enhance quality of life as people age” (WHO, 2002, p12; Hijas-Gómez et al., 2020). Building on the United Nations’ Madrid International Plan of Action on Ageing (Siderenko & Walker, 2004) and the WHO Global Strategy and Action Plan (2017), the United Nations (UN) General Assembly declared 2021–2030 the UN Decade of Healthy Ageing (Decade of healthy ageing, 2023). The WHO leads the implementation of the Decade bringing together governments, international agencies, academics, the media, health professionals and the private sector in a period of ‘concerted, catalytic and collaborative action to foster longer and healthier lives’. The Decade aims to improve the lives of older people, their families and communities by reducing health inequalities, planning to accomplish this through collective action by stakeholders in four key areas: first, by tackling how societies across the globe think, feel and act towards age and ageism; second, by developing communities in ways that nurture and promote the abilities of older people; third, by working to deliver person-centred integrated care and primary health services that are responsive to older people; and last, by providing older people who need it with access to quality long-term care. The Decade emphasises that older people, services and society need to be educated about the self-management of ageing through public-facing learning that promotes healthier lifestyles (Decade of healthy ageing, op.cit.).

While advances in life expectancy have added years, older people worldwide have mixed experiences of living the second half of their lives. Older people who spend their additional years in good health, remain independent, and continue to participate in their community and contribute to family life, depend on ongoing healthy ageing. Current evidence suggests that, while “good health adds life to years” (WHO, 2012), the impact for older people and society of poor health is far reaching and negative. Research worldwide in the epigenetics of ageing, and into environmental and lifestyle factors which accelerate ageing at a genetic level, suggests that a lack of good nutrition, hydration, physical activity, social and cognitive stimulation (Five Pillars) cause people, with or without underlying chronic conditions, to age faster. However, many diseases associated with ageing faster are preventable or reversible (Pagiatakis et al, 2021; WHO, 2020; Frankel et al, 1991).

It is an important global societal challenge to develop proactively collaborative approaches between allies in health, voluntary sector (NGOs) and academia in order to increase opportunities for everyone to live longer, healthier lives. Cherbuin et al.

(2021) assert that by extending collaboration outside the bounds of academia and fostering partnerships between older people, the community-based organisations who work with and for them, researchers and policymakers, research findings may be translated to the real world more effectively. To this end, a team of researchers from The Open University (OU), partnered with health and social care services as well as members of the public over the age of 50 from across the UK to co-design, co-produce and co-deliver a series of free public talks for older people. People over the age of 50 were chosen as a target audience because this is the age in the UK when chronic conditions associated with lifestyle factors that accelerate ageing become noticeable for many (Centre for Ageing Better, 2022).

This paper presents the evolution of the AWPTS from its inception in 2019. We discuss how the talks enshrine the principles of collaboration, co-delivery and co-production to promote healthier ageing in older life. The AWPTS, structured around the Five Pillars, offers a public health educational intervention model that promotes healthier ageing in alignment with the Decade. We reflect on how a participatory approach to organising, co-designing, co-producing and co-delivering the talks in collaboration with a community of invested stakeholders and individuals was achieved. This illustrates how the existing 'Ivory Tower' gap may be addressed, by considering the complex and intersectional nature of health inequalities, which is informed by current gerontological education and health literacy knowledge. We draw on feedback received and our own reflections when discussing the benefits of the AWPTS for public audience members, healthcare professionals and partner organisations and also how the lessons learned link to future directions for the AWPTS.

Underpinning this public health educational intervention model is a learning approach for older people that translates evidence-informed research on healthier ageing into 'bite-sized' chunks/units of information to promote self-management of health and wellbeing in older age. Through the Five Pillars model, the AWPTS makes learning accessible by tackling language and encouraging peer support to make knowledge exchange feel relevant, fun, and easier to retain for longer and transfer in older people's daily lives (Bates, 2019). The AWPTS approach to learning addresses the gap between research on healthier ageing and those most in need of the evidence-based knowledge and increased understanding of the healthier lifestyles it promotes.

The evolution and reach of the AWPTS at the Open University (OU)

The OU is the UK's largest university whose distance learning courses are available worldwide. The OU has a reputation for public facing knowledge exchange and learning that is often freely accessible to all. 'OpenLearn', a free learning resources website from the OU, has had 105 million visits since its launch in 2006 (Open Learn, 2023). The AWPTS began in September 2019 as a series of face-to-face talks at the OU campus in Milton Keynes. Talks were delivered by OU researchers with invited specialists on differing aspects of healthier ageing in older life (see *Table 1*). The collaboration grew into a number of local partnerships in Milton Keynes and

Buckinghamshire in the UK with one English General Practitioner (GP) practice, the University of the Third Age, Age UK Milton Keynes, Carers MK, Healthwatch MK and others. Simultaneously, the AWPTS grew a national and an international audience through, for example, online talks to Chinese Hospitals via a partnership with Cambridge Medical Academy & UKeMED.

In response to the Covid-19 pandemic, delivery of the AWPTS was moved to online monthly webinars, each lasting between 60-90 minutes. These interactive sessions typically involved speakers including academics, health and social care staff, and older people with lived experience perspectives. During each talk the presenters/facilitators use one or two blocks of ten minutes of gentle stretching, and a range of cognitive exercises involving 'hands-on examples' of physical, cognitive and emotional wellbeing. These exercises promote experiential and social learning in a relaxed peer setting (Pappas et al., 2019; Golinowska et al., 2016). Talks are advertised in advance through the extensive network of contributors from voluntary and public organisations partnering with the OU, within the OU on a dedicated AWPT Website, and more widely within the OU community as well as across social media. The content of each talk is recorded with captions and an accessible document is created, supporting attendees with visual impairments. Talks are then available to watch asynchronously at a time to suit audience members. This means that older people with caring responsibilities, or the carers of an older person, can benefit from the knowledge and experiences of others and gain evidence-informed advice and information. All AWPTS sessions are available and hosted on the Open University's Stadium platform, meaning audiences from anywhere can revisit them at any time. This supports wider sharing by 'word of mouth' where people who know about the AWPTS share the information and recordings more widely to their families and friends across the UK. The talks are now shared and accessed worldwide.

Table 1, below, lists the topics discussed in the AWPTS latest session – 2022/2023. Although the numbers attending an online talk on the day may sometimes be modest, the numbers accessing the talks (and the portfolio of accompanying materials) asynchronously are substantially more. More than 80,000 individuals have engaged with AWPTS sessions and the accompanying educational resources since 2019.

Table I. Topics built around the Five Pillars for Ageing Well

<p>Ageing Well Public Talks Series 2022/2023</p> <ul style="list-style-type: none"> ● Tackling ageism and how we might need to go about that. The changing attitudes to what people want from this stage of life/retirement/extended working/bridge work/volunteering ● Exploring common age-related conditions such as osteoporosis and frailty, menopause, andropause and how hormonal changes associated with ageing may affect us. ● Taking some of the control over our dying and what are the ways we can co-create our care plans. ● Age related and non-age-related memory loss and how to boost our memory. Including how important it is for our health and wellbeing to spend time outdoors and how using mindfulness and present moment awareness of nature can help to preserve and maintain a sense of self and well-being in older age. ● Nutrition and Hydration in older age including the self-management of Type 2 diabetes ● Relationships, intimacy and ageing ● The importance of sleep ● How health inequalities impact on our ability to make the right lifestyle choices and what we can do to change that. ● Issues around equality, diversity, and inclusion in access to provision and care in health services while ageing including access to and provision of palliative care. ● Exercise to build a strong and resilient musculoskeletal system in older years while still having fun. ● Ageing, later life and caring in the LGBTQ communities.
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Collaboration, co-delivery, and co-production

The AWPTS establishes Participatory Public Engagement as a main vehicle for its co-design/co-production/co-delivery approach where OU researchers, older people, caregivers, health professionals, third sector, private sector organisations and people with lived experience of ageing at different stages work together collaboratively on the project (Vseteckova, 2020). All the contributors work towards a common goal of sharing research and/or lived experiences around the concept of ageing well. The AWPTS approach echoes the principles of collaborative co-production (Staniszewska, et al., 2022) where everyone involved is respected and equally valued, because this is now known to be of great benefit in research. Relinquishing professional power and co-designing/co-producing resources with diverse participants, supporting where needed but facilitating the public's shaping of the direction and agenda of the AWPTS to their needs, increases engagement and wider sharing of knowledge and creates positive interactions and positive feedback. For example, the OU provides annual media workshops for all

presenters/facilitators on AWPTS, helping everyone to become comfortable when being on camera and sharing their thoughts, experiences and expertise. Crucially, the AWPTS team is continually widening networks of participants, facilitators, professionals, practitioners, and other stakeholders, while also adapting the talks in response to the growing and ever more diverse audiences. A wide range of freely available resources have been co-produced by the AWPTS team working with other stakeholders (AWPTS, 2023).

Reflecting on the ethos of co-production adopted by the AWPTS, the academic lead commented:

By inviting individuals, wider public (communities) and stakeholders to co-design, shape and co-produce the AWPT Series and outputs that are easily and freely accessible we're contributing to public education by offering a genuine opportunity to share their opinion and have 'their say' in co-designing and co-producing materials, on how it works for them and what could work better in the true spirit of co-production and participatory agendas.

JV – OU Academic Lead for AWPTS and Take Five to Age Well Pledge

A member of the AWPTS team at the OU noted:

As academics we know many people are living longer lives and the disparity between those who age well with less years of ill-health compared to those who age badly is increasing ...that there is an ageing health inequality gap. We know there is evidence-based research grounded in epigenetics to assist people with ageing well, but that research is often inaccessible to precisely those ageing populations who need to understand it most...in order to bridge the ageing health gap, the Ivory Tower gap must also be bridged.

JDL – OU Research Associate and AWPTS co-presenter

Evaluatory feedback from key stakeholders on the AWPTS

Evaluatory feedback has been collected on the AWPTS since 2019. In keeping with the core values of the programme, individual older people who have taken part in the project also provided feedback through interview. The collaborative and co-produced format of blending lived experiences of older people, combined with academic research expertise and third sector knowledge, enabled the organic development of a significant online community of interest. Feedback on the impact of the AWPTS at a community-wide level was gained from stakeholders from various voluntary, and public and private sector organisations, concerning their inputs to individual talks and as partners in the project more broadly.

Evaluatory feedback was collected in several ways, namely: through interviews from five older people who regularly attend the AWPTS; by online polls completed by online attendees at AWPTS sessions; from comments left by those accessing the talks asynchronously (using a rating scale and a comment box); and printed

surveys completed by session attendees who were unable to complete online polls.

Co-design and co-production through feedback

The feedback from older people attending AWPTS sessions or viewing the recording sessions typically included comments on the benefits of the Five Pillars approach for them, but also how they cascade those benefits to their family and friends, creating a community of interest. As the testimonial of one regular AWPTS session attendee noted:

I was attending the AWPT Series since they started at The OU (2019), when I realised how helpful and well-presented these are I brought also my wife... through AWPT Series I was able to understand why some changes happen as we age and why working around the Five Pillars for Ageing Well is a great, efficient and easy way to do something about my health and health and lifestyle choices every day. Thanks to the talks I have been making healthier, better lifestyle choices and was able to support my family and friends to make theirs through sharing the Five Pillars for Ageing Well with them.

Older person with lived experience of a long-term health condition

Attendees unanimously valued the collaborative co-produced format of AWPTS sessions, which fostered discussion and information sharing, and lent itself to creating a community of interest:

I thought it was an interesting and informative session with time for discussion.

Survey respondent - xxx244

Attendees appreciated the translation of evidence-based research on epigenetics and ageing into manageable language, framed by the Five Pillars:

Thank you very much for this beautiful overview of the most important topics of ageing.. I appreciate it very much.

Survey respondent – xxx441

As an evolving community of interest engaged in collaborative co-production, attendees at AWPTS sessions or those who view the recorded sessions often offered critical feedback on future topics to be developed, or the limitations of current sessions. This was actively encouraged and acted upon. A comment by a survey respondent resulted in the addition of a talk around building physical strength, improving posture, and how to incorporate exercise into daily life while having reduced or limited mobility:

I think the talks represent the different aspects of ageing and ageing well. An exercise session, covering exercises that can be done at home may be of benefit.

Survey respondent – xxx103

AWPTS sessions include an adapted exercise or other interactive session with practical tips on how to improve our physical or mental and emotional wellbeing. In these sessions attendees join the presenters in situ in completing exercises or meditations, sitting at their computers while the presenter talks them through it. Interactive sessions are designed in a way that can be achieved by all attendees. This iterative process of feedback and learning generated by a community of interest, commending benefits while highlighting areas for improvement, has informed the organic development of the AWPTS sessions.

Positive feedback has also been received from a range of partner organisations who have participated in the AWPTS as illustrated by the following quotes from healthcare practitioners involved in co-production and co-presentation of sessions. They highlight the impact of the AWPTS on their professional practice, in developing their skills and increasing their knowledge and ability to engage with communities of older people in the self-management of their health.

the talks have changed the way I work as a nurse with the ageing populations, the talks and materials equipped me with the right language and positive approach modelled by the Five Pillars for Ageing Well to engage the communities I support in discussing their health and wellbeing while they are ageing

GP Practice Nurse in Scotland

it is amazing to see and be able to use and share with the Parish Nursing Ministries UK community of parish nurses, patients, and informal carers the wealth of material co-produced within the AWPT Series, written in public facing way, the parish nurses have also appreciated participating in the AWPT Series.

Director of Nursing Parish Nursing Ministries UK

As an expanding community of interest engaged with accessible public facing knowledge and learning ageing well, *Table II* summarises the outcomes of the AWPTS co-produced by the AWPTS team with other stakeholders:

Table II. Summary of outcomes for the Ageing Well Public Talks Series 2019 – present mapped to the evidence base

Academic research base	Public engagement	Outcomes and impact
Epigenetics	Embedding self-management and empowering audiences to become partners in their health care.	OU initiated co-creation of communities of practice through co-design, co-production, and co-delivery of The AWPTS, by inviting the public and practitioners and stakeholders to shape the direction of the AWPT Series, individual talks and co-facilitating the delivery.
Health Literacy	Accessible language and interactions based on the principles of Health Equity.	Engaged and learning that enhances healthier lifestyle choices and better physical and mental health and wellbeing outcomes.
Lay Epidemiology	Older people can effectively self-manage providing they understand the reasons for self-management and understand how this can be easily/accessibly done – Five Pillars – applied to their individual situation.	Confirmation from the members of public including people with lived experience, professionals, stakeholders and health commissioners who engaged with the AWPTS that self-management is the way to go in the current climate – with all the financial, governmental spending agendas.
Learning Theories	<p>Adding gently educational aspect as all talks have accessible ‘takeaway learning outcomes’.</p> <p>Well captured ‘bite-size’ pieces of information that do not overload the audiences allowing transfer to long-term memory and use in daily tasks.</p> <p>Making sure the learning and resulting actions are available to all, regardless of age, sexual orientation, economic or social situation.</p>	<p>The AWPTS format is designed to promote learning for older people in a collaborative relaxed setting. The format encourages transformative learning through new knowledge on ageing applied to life experiences, social learning from peers, and experiential learning through modelled examples of the Five Pillars in actions older people can try and then apply to their own life circumstances. The ‘bite-size’ pieces of information which are repeated throughout sessions build on older people’s experiences of ageing so that they can construct a new understanding of healthier ageing that feels relevant to their life circumstances. This relevance is underpinned by trust. The trust the AWPTS has built with its developing community of interest for evidence-informed learning on healthier ageing, and the reputational trust the OU has for public facing knowledge exchange and learning. A key element of AWPTS learning is that it is equitable and inclusive, where diverse older people are given ownership to solicit feedback and give feedback on sessions.</p>

As members of the community of interest, the AWPTS team have learned through iterative feedback how the talks have impacted on ageing individuals (micro-level), and with communities such as clinicians, practitioners supporting ageing-well populations in their professional roles (meso-level) who have engaged with AWPTS sessions. Going forward, we are keen to effectively engage stakeholders and policy makers across the UK (macro-level) with the Five Pillars to induce sustained behavioural change that supports healthier ageing. To this effect, we co-designed a UK wide initiative titled Take Five to Age Well Four Nations Pledge.

A member of the research team noted:

Research in epigenetics tells us that there are steps we can all take to prevent or modify some diseases commonly found in older age. We now know that public engagement in health education messages relies on both health literacy and 'lay epidemiology' or the processes through which health risks are understood and interpreted by laypeople. The AWPTS helps to remove the barriers to public health information which can cause the public to disbelieve or fail to act on public health messages.

GOC – Research Assistant AWPTS and Independent Researcher

Limitations

The AWPTS continues to be developed and delivered via the Open University. However, its beginnings were affected by the impact of the Covid-19 global pandemic and it then developed organically in response to the unprecedented shift in educational and public health delivery. So, one of the limitations encountered was the necessity to move to online delivery which initially presented a challenge. However, this enabled the project to focus on developing online delivery and accessible content, which became one of its strengths. Through online delivery the programme gained audiences, in the UK and globally; thus the reach of the AWPTS widened more quickly than initially expected.

A further limitation was that, although the AWPTS evaluations capture information through regularly inviting attendees to feedback (showing for example that people gained new knowledge about ageing and age-related changes, felt more confident in taking care of their health and wellbeing, and would hydrate more) the structure of current feedback does not allow for more detailed information on mechanisms around changing behaviours. At present, we don't understand how people create new and healthier habits (behaviours) and what helps or hinders sustaining their new habits. For this reason, we have constructed the Take Five to Age Well Four Nations Pledge (see below) to provide a deeper understanding about mechanisms supporting behavioural change and the role of the Five Pillars.

Future directions

Through evaluating the AWPTS we have learnt important lessons about engagement, the need for interventions to be as tailored as possible and the importance of bite-size, accessible learning. Building on the success of AWPTS, we propose a new initiative that implements the model of 'Five Pillars for Ageing Well' to engage UK-wide communities and individuals with their physical and mental health and wellbeing. Take Five to Age Well – Four Nations Pledge is designed to empower people towards achieving effective, long-term self-management by becoming partners in getting and staying healthy, and reducing health inequalities by introducing 'bite-size' actions that are available to all. The team consisting of academics and non-academics (health and social care organisations, charities, third sector partners) received funding from all four UK nations (England, Scotland, Wales and Northern Ireland) to develop this initiative.

The initiative, the first of its kind to our knowledge, will invite people to join a community from each of the four nations, making small daily changes for better ageing structured around the Five Pillars for Ageing Well (Nutrition, Hydration, Physical Social and Cognitive Stimulation). Take Five to Age Well is a UK-wide campaign, aimed at people 50+ years as an intervention pre-frailty. It is designed to empower individuals to take control of their health and wellbeing and drive a national conversation about ageing well behaviours and ageist attitudes. Take Five to Age Well (the Pledge) is in line with NHS anticipatory care policies as well as ageing well and behavioural change research, and corresponds with the United Nations' Decade of Healthy Ageing, which sets a plan for action to support individuals with living longer, healthier lives and follows the concept of intrinsic capacity (IC), introduced by WHO by offering provision to support and promote healthy ageing. Take Five to Age Well aims to build a UK-wide community that encourages people to commit to one or more ageing well behaviour for 30 days. Individuals commit to daily habits over a month that will impact their ageing outcomes. Our ambition is to establish Take Five to Age Well as an annual event similar to other successful pledges such as Dry January and Stoptober (recent initiatives to reduce alcohol intake).

With an increasingly ageing population and demands on health and social care services already high, ageing well needs to be a priority for all. Project staff believe we should be aiming for future generations to enjoy longer lives, access, and feel empowered to make choices that boost their health and well-being. Our actions to pledge fall under the Five Pillars for Ageing Well and there are several options to choose from, recognising no two adults are the same (Take Five, 2023). Pledges are a rediscovered form of public health intervention which can increase self-awareness of behaviours and habits, establish clear goals and improve adherence (Koessler, 2022). These can be easily followed without additional cost or need for special equipment, thereby encouraging the promotion of healthier ageing for those with or without chronic conditions and across diverse communities.

The Pledge builds on the AWPTS and its model of Five Pillars for Ageing Well by empowering older people to achieve effective, long-term self-management of their health thus becoming partners in achieving and/or staying healthy. The Take Five to

Age Well Pledge will primarily be accessed online via the nQuire digital platform - a Community and Citizen Science tool developed by the OU and the BBC (nQuire, 2023). As part of this initiative, a pilot with a small group of participants to pledge offline will allow researchers to understand the mechanisms needed to support older people whose digital skills or access to computers and internet is limited (Carney et al., 2022; Mubarak et al., 2022; Van Dijk, 2020).

Conclusions and implications for the field

Many of the changes we experience as we age cannot be avoided. However, some diseases that cause suffering and disability are preventable or ameliorated with changes to lifestyles and behaviours across the lifespan. The AWPTS addresses a need for public-facing accessible knowledge exchange and learning to support ageing populations with leading healthier, independent, longer-with-better-quality and more productive lives. This is especially important in the current climate where populations are ageing and service cuts across health and social care sectors are multiplying, such that improved self-management of populations could be an efficient way forward. Feedback shows that AWPTS improves health and quality of life outcomes at population level, especially for those who do not actively seek to improve their health.

We have outlined future ambitions in terms of AWPTS and Take Five to Age Well initiatives to contribute to a healthier and happier society. Through these programmes we support inclusive and equitable health and wellbeing choices being accessible and available to all regardless of their life situation. AWPTS and Take Five to Age Well contribute to the efforts worldwide to prevent and delay the steep decline (physical and cognitive) and loss of independence often associated with ageing. Firmly aligned with the goals and principles of the UN Decade and strongly endorsed by diverse stakeholders, what began as a small scale, localised series of talks has evolved into a public health initiative that is regularly reaching tens of thousands of people. Accelerated by the Covid-19 pandemic and its consequences, the programmes developed over a relatively short amount of time. Their participatory approach, co-design and co-productions with ageing populations, community groups and public/private partnerships in parallel with sharing of the co-produced knowledge are at the core of both AWPTS and Take Five to Age Well.

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