MENOPAUSE MATTERS

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Meandering through ageing

We live in a world of ageing populations, and much academic effort is being invested in calculating what the numbers will be like in the future, and how health services will address the repercussions that will inevitably accompany this new community balance.

This synopsis will focus on the place of physical activity as a preventative tool to maintain bodily and mental health issues that are receiving much attention in the literature.

- By 2050, one in five of the world's citizens will be 60 years or older
- Most (two thirds) will be living in low- and middle-income countries
- 150 million will be living with dementia
- Half of neurocognitive cases could be prevented by modifying negative lifestyle habits
- The risk factors for dementia are similar to those for cardiovascular disease
- Physical fitness is an integral part of warding off senescence.

Exercise and ageing

A lack of physical activity is a global problem, which has been aggravated by the Covid pandemic. There are considerable benefits to every individual who exercises regularly (Haseler and Haseler *BMJ* 2022;376:0348). Twenty-first century life is not conducive to physical activity with "work from home", remote shopping, deliveries of everything and communication by phone or computer being far more convenient and energy-saving than making the effort to physically move to meet people or exchange information. Also, the trend of virtual meetings requires individuals to make positive decisions towards bucking the trend and be more active as they age. An article entitled "Live Meetings: Is the Juice Still Worth the Squeeze?" looks at traditional medical conferences and poses the question – are they obsolete? (West *Medscape* 2022).

Menopause medics deal with people from middle age onwards and old age officially starts at 65 years, so members of bodies such as our SA Menopause Society have to be aware of what ageing involves and how to minimise its effects. Much of how people age is predicative on their physical activity.

At its most basic level, exercise improves physical, mental, and emotional health for individuals and communities. Those who move more, have healthier and longer lives, and are less affected by non-communicable diseases.

These broad statements are backed up by volumes of medical research publications, systematic reviews, and meta-analyses (Momma et al *Br J Sp Med* 2022 doi 10.1136/bjsports-2021-105061). Also, a study over more than a decade of 70 year olds "found that participation in 7.5 to less than 15 metabolic equivalent hours per week of running, cycling, swimming, other aerobic exercise, racquet sports, golf, and walking for exercise was associated with lower mortality risks compared with nonparticipants" (Watts et al *JAMA Netw Open* 2022;5:e2228510).

Exercise this century

Looking to the future, it is not impossible that exercise will be incorporated into all wellness programmes. The concept of walking groups and Park Runs can grow from informal "meeting up" to commercial gym, dance, and exercise classes with people signing up and paying to keep fit.

Medical Aids, insurance companies, and health clubs are using incentives to encourage their contributors to join wellness courses or record their activities using wearable technology that records and relays (by smartphone apps) information to monitoring centres. This has been embraced by the younger generation and needs to be modified to allow less "tech-savvy" old people to join the "band-width wagon".

Models have been tried with some success, for example, a group of older women (mean age 80 years) wore accelerometer devices which captured their daily movements and it was observed that greater volumes of everyday movements were associated with lowered cardiovascular disease risk (Nguyen et al *J Am Heart Ass* 2022;11:e023433).

"At-home diagnostics" are part of a burgeoning electronics industry that come under the banner of wellness products rather than medical devices. These products are not necessarily formally tested or regulated and, as they encroach on "making diagnoses" the legal responsibilities become blurred – for example, Apple and Google watches that can detect hypertension and arrythmias (Simon et al *JAMA* 2022;327:523-4).

Quite how far these devices will become adopted into modern culture to encourage and enhance fitness programmes remains to be seen, but they are likely to exacerbate the gap between those who are privileged by socioeconomic status and those who are not.

The benefits of exercise

The benefits of exercise are far-reaching, starting with physical resilience, lower risk of cardiovascular and pulmonary diseases, improved sleep and lessened risk of cancers – particularly colon, prostate, and breast (Crooke et al *JRCPE* 2020 doi 10.4997/JRCPE.2020.223). These are tangible rewards and are dose-dependent with the greatest benefits derived in moving from a sedentary lifestyle to that including both sitting less and moving more (Gray *BMJ* 2022;378:o1931).

This basic idea of minimising sedentary habits and including movement in both work and leisure, has been successfully promoted using the SMART Work and Life (SWAL) intervention. The concept of working in an office has changed because of the "work-from-home" movement, so people sit more, use their computers and devices more frequently, and remain desk-based in their residences, perpetuating a culture of sitting. To counter these "office" adaptations, the SWAL intervention especially initiated desks with adjustable heights to encourage standing and movement. This was successful when trialled in the UK (Edwardson et al *BMJ* 2022;378:e069288).

Another intervention that works is the initiation of physical activity programmes through primary care health professionals. Two-thirds of any population visit their GP (or menopause medic) at least once a year, providing "a unique opportunity to routinely prompt and provide physical activity interventions" which have proved to make a difference in real-world situations (Kettle et al *BMJ* 2022;376:e068465).

Exercise, CVD and older people

The advantage of exercise in maintaining cardiovascular health in young people is well-established, but what is its value in older people since cardiovascular disease (CVD) is universally the most common cause of death? A study from Italy of more than 3 000 men and women over the age of 65 years has shown over two decades of follow-up, that 20 minutes a day of moderate to vigorous physical activity was of considerable value in reducing the risk of negative cardiovascular outcomes, notably coronary heart disease and heart failure (Amidei et al *Heart* 2022;108:360-6).

It appears that exercise versus sedentary advice should be applied across the board as a study of people of different economic levels from high-, middle- and low-income countries had similar risk increases of "all-cause mortality and major CVD" in relation to their sitting time (Li et al *JAMA Cardiol* 2022;7:796-807). The authors suggest these risks could be effectively offset by engaging in physical activity, thus "easing the global burden of premature deaths and CVD."

How much exercise?

Although the greatest gains are achieved by those in the lowest percentiles of activity changing to being active, what are the recommendations for optimal advantage of leisure-time exercise?

"Moderate to vigorous exercise for half-an-hour, five times a week" remains the mantra for young and old, supported by WHO and every country's responsible bodies (Jeffery *Medscape* 2018). In general, more exercise is rewarded with greater benefits, with a total of 3 to 5 hours per week is consistent with the lowest risk (Schnohr et al *Mayo Cl Proc* 2021;96:3012-20).

Much has appeared recently about short-duration bursts of exercise or sustained longer-duration sessions, and this has given rise to the "Weekend Warrior" concept where people make-up for a daily lack of exercise with sustained efforts over weekends (dos Santos et al *JAMA Int Med* 2022;182:840-8). It seems to make little difference whether the activity is strenuous or less hectic such as walking, dancing, active yoga or recreational swimming, so if one form is stressful or intimidating, another more acceptable activity is equally good, even if intermittent (Wendling *Medscape* 2022 and Kuzma *Medscape* 2022).

Exercise and mental health

Apart from feeling proud of ourselves when we exercise, there are hormonal boosts to our morale which fill our "pot of self-worth". It is proven that exercise reduces the likelihood of depression (Pearce et al *JAMA Psychiatry* 2022;79:550-9). In addition, our cardiovascular system functions more effectively, lowering the risk of vascular dementia together with cognitive and social activities that, under the umbrella of leisure activities, assist with the prevention of dementia (Su et al *Neurology* 2022 doi 10.1212/WNL.0000000000200929).

The risk of metabolic disorders such as diabetes, is reduced in older women with increased exercise as measured daily step counts. This is also presumed to be protective against dementia development by reducing the type 2 diabetes/cognitive decline association (Garduno et al *Diabetes Care* 2022;45:339-47).

Early markers of impending dementia are useful to put in place preventative measures and it appears that coupling gait-speed decline with memory deterioration may be "the best combination to assess future dementia (Collyer et al *JAMA Netw Open* 2022;5:e2214647).

There are suggestions that factors other than physical activity can contribute to staving off cognitive difficulties and some are:

Caring for a pet. Older people who take care of a dog or cat over a long period of time have slower rates of cognitive decline than comparable non-pet owners (Brooks *Medscape* 2022). Quite how pet care protects the brain is unclear, but stress reduction and increased physical activity are possible mechanisms. The authors suggest community projects to encourage and sustain pet ownership should be promoted.

Green space residence. Where women live in relation to a "green space" environment appears to decelerate cognitive decline. A study of more than 10 000 volunteers' homes, measured (by satellite imaging) each individual's green space around their long-term residence, and related the results to serial measures of their cognitive status (Jimenez et al *JAMA Netw Open* 2022;5:e229306). Air pollution, noise and exercise facilities may be the contributors to retaining levels of mental health and protecting against dementia.

Muscle mass and cognitive decline. In older adults, low muscle mass is "significantly and independently associated with faster subsequent executive function decline". This is the conclusion of a longitudinal study of over 65 year olds looking at rates of cognitive decline in a community-living Canadian population (Tessier et al *JAMA Netw Open* 2022;5:e2219926).

Lean soft tissue mass was measured by dual energy x-ray absorptiometry and cognition by executive function and psychomotor speed. Low muscle mass appears to be a readily discernible measure and predictor of executive function decline, probably related to low levels of physical activity.

Social support

Being socially active by interacting with family and friends, is associated with lower incidences of dementia; as is having a spouse (Chen & Mok *J Neurol Neurosurg Psychiatry* 2018;89:227).

Two articles this year link CVD to social isolation and loneliness in older women (Golaszewski et al *JAMA Netw Open* 2022;5:e2146461 and Cené et al *J Am H A* 2022;11:e026493). The associations appear robust and beg the question as to how telehealth could be adapted to improve communication with homebound senior citizens. It would require sympathetic programming, but it should be within the wit of modern social media to devise voice-activated systems to allow frequent on-demand contact (Moo et al *JAMA Netw Open* 2021;4:e2113451). Really useful technology please.

Menopausal Hormone Therapy

The North American Menopause Society has released its 2022 position statement on hormone therapy and the menopause (*Menopause* 2022;29:767-94). The pertinent summary sections are: "Hormone therapy remains the most effective treatment for vasomotor symptoms (VMS) and the genitourinary syndrome of menopause and has been shown to prevent bone loss and fracture."

Commenting on the document, the medical director or NAMS, Stephanie Faubion, said ""The position statement reiterates that hormone therapy, which is significantly underutilized, remains a safe and effective treatment for menopause symptoms, which remain undertreated, with the benefits outweighing the risks for most healthy women who are within 10 years of menopause onset and under the age of 60 years," (Splete *Medscape* 2022).

MHT following breast cancer

Breast cancer treatment can lead to declining estrogen levels, especially if aromatase inhibitors are used as adjuvant endocrine therapy. This may find expression in genitourinary syndrome of menopause symptoms from which patients may seek relief. Systemic or topical treatments have been traditionally avoided because of concerns about cancer recurrence, although trials to date have shown mixed results with systemic MHT.

A large Danish trial looking at breast cancer (BC) recurrence in women using vaginal estrogen therapy (VET) and menopausal hormone therapy (MHT) has reached the following conclusion: "In postmenopausal women treated for early-stage estrogen receptor–positive BC, neither VET nor MHT was associated with increased risk of recurrence or mortality. A subgroup analysis revealed an increased risk of recurrence, but not mortality, in patients receiving VET with adjuvant aromatase inhibitors." (Cold et al *J Nat Ca Inst* 2022 doi 10.1093/jnci/djac112).

Cannabis and the menopause

An article in *Menopause* caught the eye entitled: "A survey of medical cannabis use during perimenopause and postmenopause" (Dahlgren et al *Menopause* 2022 doi 10.1097/GME.0000000000002018).

What the survey did was to assess patterns of medical cannabis use in the menopause transition. The researchers found that two thirds of their recruits used cannabis for sleep disturbances and half for mood or anxiety reasons. No data are presented on the efficacy of the "medication" in alleviating vasomotor symptoms.

Editorial comment – Given the "paucity of research" examining medical cannabis (MC) use in relieving menopausal symptoms, this is a topical issue, so it was disappointing that the authors say "Most participants…. endorsed using medical cannabis for menopause-related symptoms (79%)" without clarifying what ***endorsement*** *meant to those taking part. Most (84%) – were habitual users so one would suspect they were endorsing its use in general. We will have to await future studies before its value for the full range of menopausal symptoms is, or is not, established.*

They also state that "many individuals are currently using commercially available MC products as an adjunct treatment for menopause-related symptoms" without giving data to support such a claim.

The article appears to "endorse" further research into cannabis efficacy in treating menopausal symptoms without mention of the undesirable consequences, such as its short-term side effects plus its addictive and psychotic-inducing potential. The United Nations Office on Drugs and Crime, in its annual World Drug Report (2022) states "The proportion of people with psychiatric disorders and suicides associated with regular cannabis use has increased." (Murphy *Medscape* 2022). *Cannabis is not a benign drug, and calling it "medicinal" does not change its well-documented harms.*

My hope is that the NAMS report on non-hormonal treatments due out next year, will be more objective and, if anything is endorsed, it is supported by empirical evidence.

Note to readers

Menopause Matters is prepared exclusively for members of the South African Menopause Society. However, should you wish to share the information presented with colleagues or patients, you are at liberty to do so without attribution.

Athol Kent

Email address atholkent@mweb.co.za

Menopause Matters is a monthly review of matters menopausal that have recently appeared in the journals. It is produced for the South African Menopause Society and the summaries concentrate on clinical issues although some underlying patho-physiology will be included to ensure a scientific basis for the work. These summaries and opinions do not necessarily reflect the views of the S A Menopause Society. Any clinical decisions made on the data presented are at the reader's discretion.