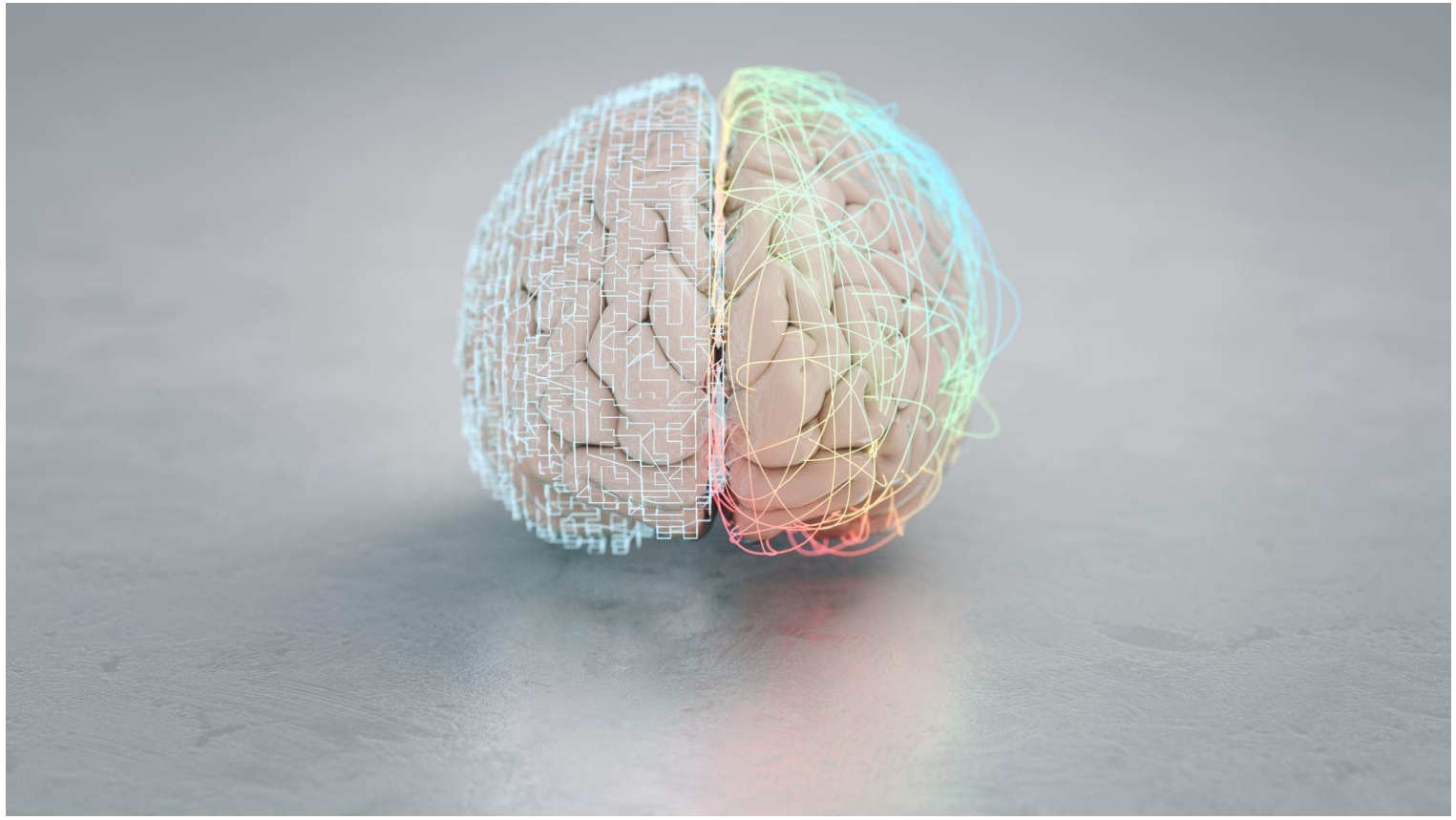
Brain fog : From symptoms to strategies



Case 1-
Kristen 48yo
IT executive

Acknowledgement of country

I wish to acknowledge the traditional custodians of the land upon which we are all meeting from this morning, and pay our respects to elders, past and present.

And to extend that respect to any First Nations people with us today

Acknowledgements

- I would like to acknowledge the work of Prof Aimee Spector and Ass Prof Caroline Gurvich in the field of menopause and cognition. While some of the content in these slides is based on their ideas/approaches to brain fog, I have developed this talk drawing on my own clinical experience.

Learning Outcomes

- By the end of this session, participants will be able to:
- **Identify common cognitive symptoms during the menopausal transition** and understand contributing factors.
- **Differentiate menopausal brain fog from normal ageing, mild cognitive impairment, and dementia.**
- **Recall how to take a structured primary care assessment** of cognitive concerns in midlife women.
- **Implement patient-centred, management plans** to optimise cognitive symptoms of menopause

Case 1

Kristen 48yo

IT executive

Kristen presents with :

- Brain fog
- Irritability
- VSM - sleep disturbance, middle insomnia
- Overwhelmed- not coping as well as usual
- Feels worse premenstrually

Kristen -IT executive

- Menarche 12
- P0G1 by choice
- Regular periods till 18 months ago
- Now every 2-3 months sometimes heavier lasting about 5days
- Symptoms began about 12 months ago and causing distress in last few months following work incident

Kristen

- PH : no major illnesses or surgery except appendicectomy aged 14
- Lock down difficult, working from home and has had Covid x3
- Divorced after 10 years of marriage. She is close to her 18 year old stepdaughter.
- Exercises 4 x per week, gym, pilates and running
- Lives alone with a cat

- FH: Mother 78 years old – overweight , hypertension, high cholesterol and osteoarthritis
- Father 80 years old Previous MI at 60, hypertension and some cognitive decline starting
- Paternal grand parents had dementia and CVAs. Died in 80s
- Sister aged 50 , epilepsy and hypertension

Help !

- Main worry - about her memory and whether this could be signs of dementia
- Also concerned about her work performance
- She recently read an article about brains shrinking in menopause
- Keen to know if taking hormones will prevent dementia ?

- Does this sound familiar ?

How common is brain fog in menopause ?

1) <20%

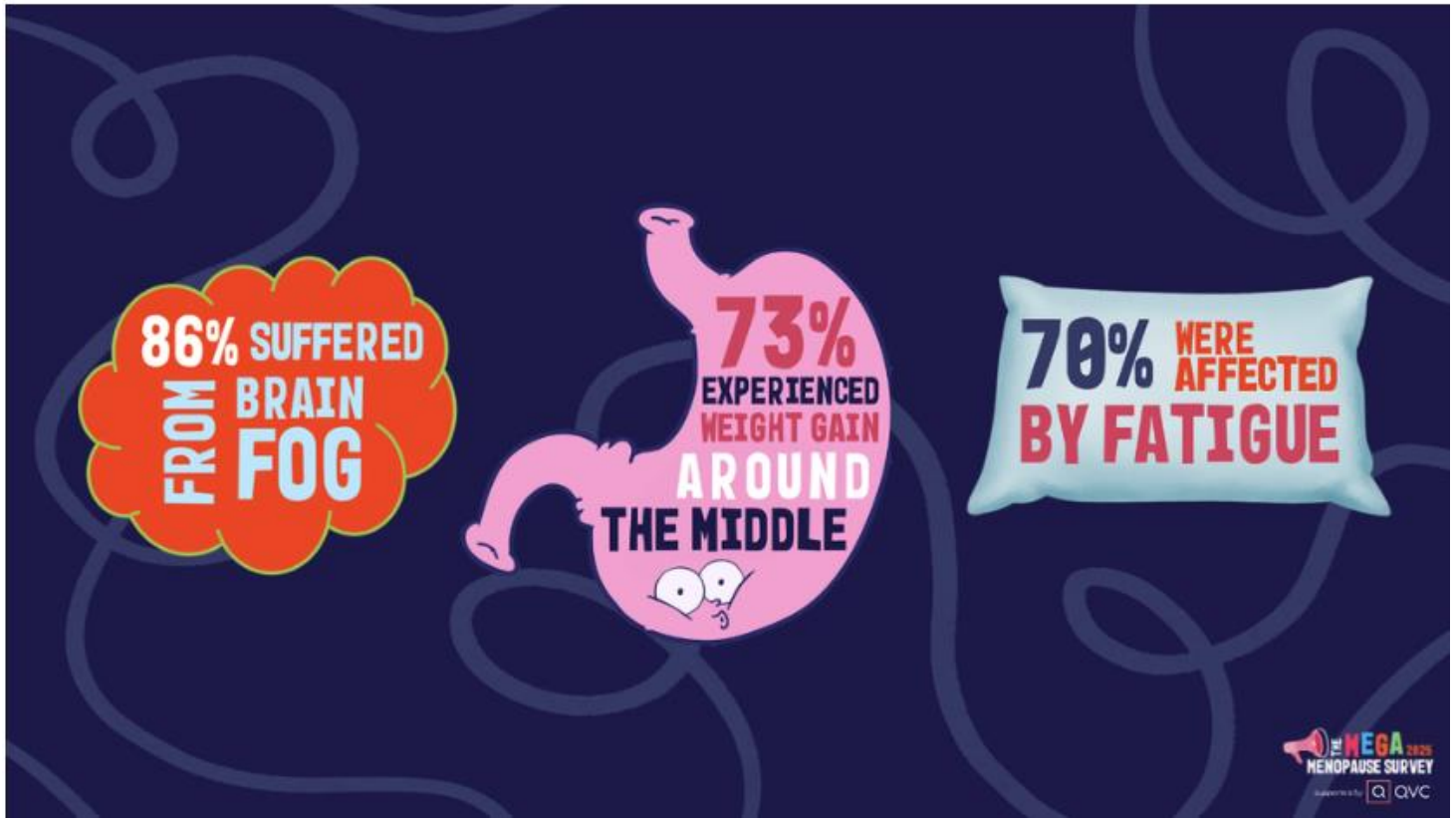
2) 20-30%

3)30-50%

4)50-70%

5)>70%

UK Menopause Mandate Survey 2025



James Lind Alliance
Priority Setting Partnerships

Research priorities for menopause

3.Does the perimenopause /menopause lead to cognition problems eg brain fog and memory loss? If yes, why and how does this happen? How are these problems best detected and managed ? Can they be prevented or reversed?

James Lind Alliance
Priority Setting Partnerships

Research priorities for menopause

9. Does HT (hormone therapy) change the risk of dementia?

MHT prescription should be based on perceived benefits and risks and not for dementia prevention- (nor should it be withheld for fear of increasing risk of dementia)

Menopause hormone therapy and risk of mild cognitive impairment or dementia: a systematic review and meta-analysis

Melissa Melville, Lexi He, Roopal Desai, Primrose Nyamayaro, Chris Fox, Kavita U Kothari, Patrick Condron, Miao Miao, Martha Hickey, Aimee Spector**

Menopause , dementia and shrinking brains

Emotional and cognitive effects of menopause and hormone replacement therapy

Published online by Cambridge University Press: **27 January 2026**

Katharina Zuhlsdorff, Christelle Langley, Richard Bethlehem, Varun Warrier, Rafael Romero Garcia and Barbara J Sahakian

Show author details

What is brain fog of menopause?


Brain Fog
Mental Fatigue
Forgetfulness
Lack of Focus
Confusion
Clouded Thinking
Memory Issues
Difficulty Concentrating
Feeling Spacey
Mind is Hazy
Absentminded
Fuzzy Thinking
Mental Exhaustion
Lost Thoughts
Cognitive Problems
Word Retrieval Issues
Disorientation
Confusion

Brain Fog of Menopause – Maki and Jaff 2022

The constellation of cognitive symptoms experienced by women around the time of menopause, which most frequently manifest in memory and attention difficulties and involve such symptoms as difficulty encoding and recalling words, names, stories or numbers, difficulty maintaining a train of thought, distractibility, forgetting intentions and difficulty with task switching .

- P. M. Maki & N. G. Jaff (2022): Brain fog in menopause: a health-care professional's guide for decision-making and counseling on cognition, Climacteric, DOI:10.1080/13697137.2022.2122792

Brain Fog of Menopause – Gurvich & Spector 2024

Self reported impairment across 1 or more cognitive areas in the absence of significant objective cognitive decline or impairment . It can fluctuate and cause mild – significant distress and impact on quality of life.

It does not result in sustained change in capacity to perform ADLs

- **Differentiating Cognitive Challenges During Menopause Transition From Dementia: Key Considerations** Aimee Spector, Caroline Gurvich First published: 11 October 2024

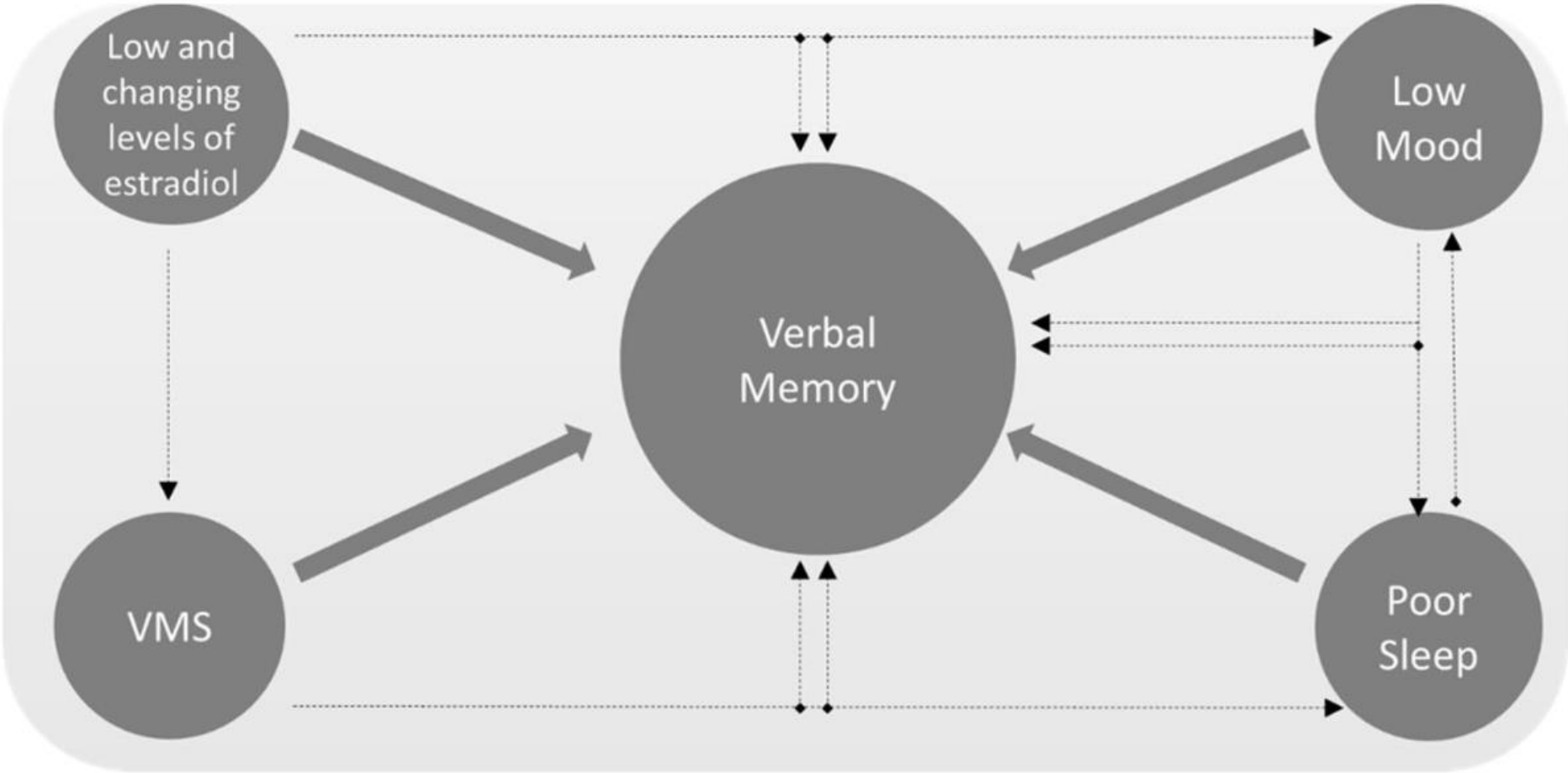
Influencing Factors on “Brain Fog” of Menopause

- Ageing
- Neuroedocrine
- Depression
- Anxiety
- Stress
- Sleep
- Vasomotor symptoms

Normal ageing changes

- Processing speeds- thinking and recalling can take longer
- Memory lapses -Occasionally forgetting names, misplacing items, or struggling with "tip-of-the-tongue" moments
- *BUT we can compensate with*:
- Crystallised abilities – use knowledge and facts learned over time
- Cognitive flexibility – adjust thought and behaviour in response to change
- The Women’s Brain Book Dr Sarah McKay

Neuroendocrine/Mood/Sleep/VSM



Other factors predicting severity of peri/menopausal symptoms…including cognition

- Low Parity
- Concurrent life stressors
- Lower socioeconomic status
- Ethnicity
- Lifestyle factors
- Older age

Subjective Cognitive Decline

- Subjective reports of persistent cognitive decline
- No objective findings on cognitive assessment
- No functional impact

? May be an at risk group

? CFM – cognition for monitoring

Mild Cognitive Impairment

- Subjective reports of persistent cognitive decline
- Objective evidence of impairment on formal testing
- Function not impaired -some difficulties in more complex tasks

- 60% don’t progress/improve
- Multiple domains where memory impacted – ? more at risk of being in prodromal phase of dementia

Where does brain fog fit ?

Self reported impairment across 1 or more cognitive areas in the absence of significant objective cognitive decline or impairment . It can fluctuate and cause mild – significant distress and impact on quality of life.

It does not result in sustained change in capacity to perform ADLs

Cognitive Challenges During Menopause Transition From Dementia: Key Considerations Aimee Spector, Caroline Gurvich First published: 11 October 2024

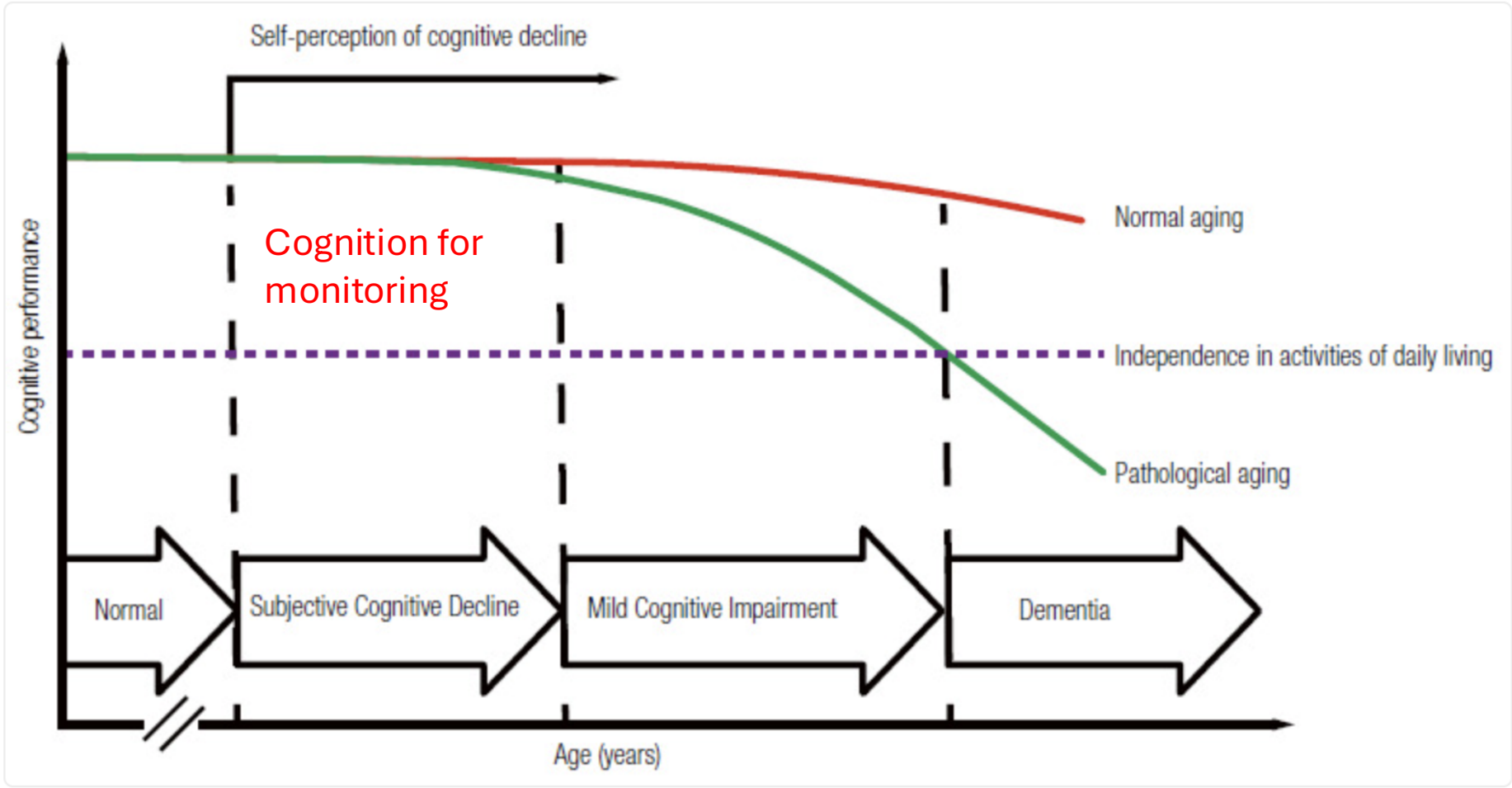
Brain fog resolves post menopause

- SWAN study – suggest cognitive change limited to perimenopause
- Penn Ovarian Aging study- some verbal learning (encoding) difficulties persist but verbal memory (recall) difficulties resolve post menopause
- One longitudinal study of low-income women of colour –showed new onset of cognitive symptoms persisting for 11-13% of women post menopause
- *Overall* it is unknown what specific factors may make women in MT more vulnerable to new onset of cognitive symptoms
- *But what we do know is* - that there are at least 14 modifiable risk factors for dementia over the life course for both women and men

Dementia

- Gradual onset of persistent cognitive impairment
- Progressive – getting worse
- Failure of function
- Not due to any other reversible cause
- Often not self reported- others reporting

Figure 1. Continuum of cognitive decline in normal and pathological aging.



Back to Kirsten

- Brain fog (main concern)
- Irritability
- VSM - sleep disturbance, middle insomnia
- Overwhelmed- not coping as well as usual and worried about work performance
- Feels worse pre-menstrually

What are our next steps ?

Validate her concerns

Explore the onset and nature of symptoms

Ask about any functional impact- workplace

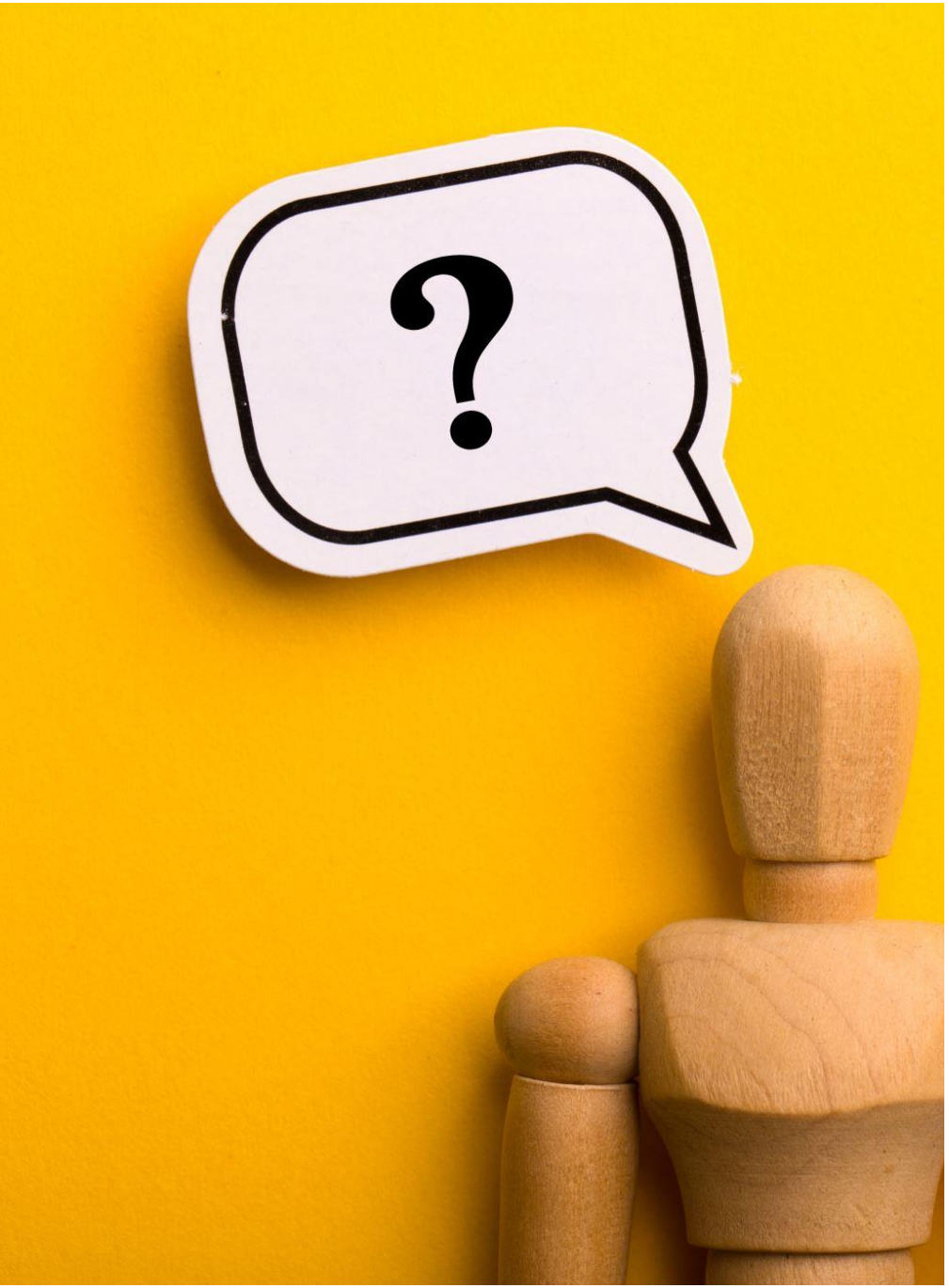
Assess for anxiety, depression and sleep disturbance

Review any medications or relevant medical comorbidities

Utilise a brief cognitive assessment tool if symptoms progressive or affecting any day to day function

Offer the opportunity to complete a cognitive risk assessment tool to address any modifiable risk factors for dementia /optimize brain health

*Consider referral if any objective findings of cognitive impairment or significant functional decline



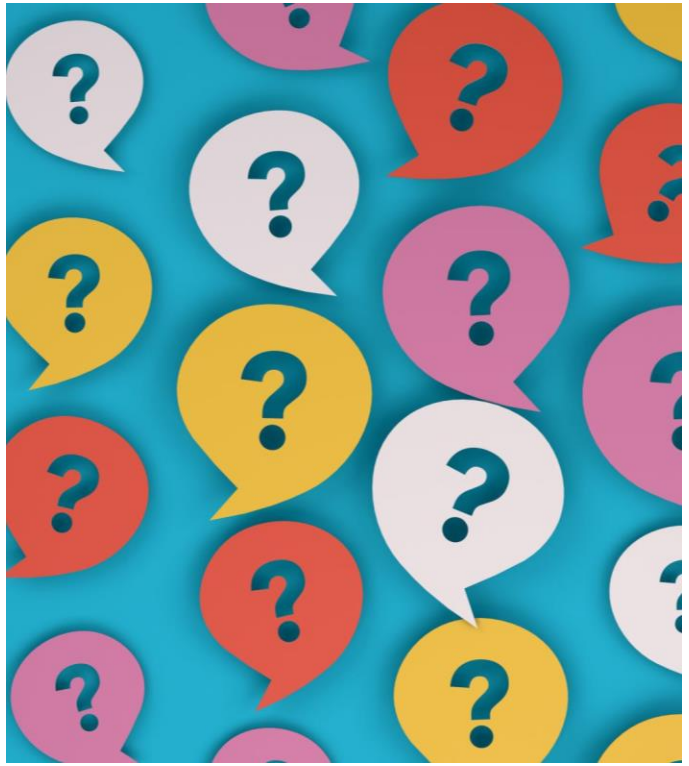
Validate her concerns ?

- What words do you /could you use to validate Kristen’s concerns ?

Explore the onset, nature and impact of symptoms ?

Questions to ask to explore cognitive changes ?

1) Have you experienced any difficulties remembering things (names, recent events or conversations) or problems with attention/concentration ?
2) When did you first notice these ?
3) Have you noticed that these symptoms vary at any time in your cycle?
4) Have these changes impacted on your ability to function ?
5) Have you experienced any significant life stressors or change in mood/level of anxiety ?
6) How has your sleep been ?



Meno - D

MENO- D

A rating scale to detect depression in menopause

Professor Jayashri KULKARNI
Monash Alfred Psychiatry
research centre Melbourne

Subject's name or code: ..... Date: .....

The Meno- D can be completed as a self-report scale or completed by a clinician. The general reference point for each item is the individual's pre-menopausal level or state.

A – LOW ENERGY

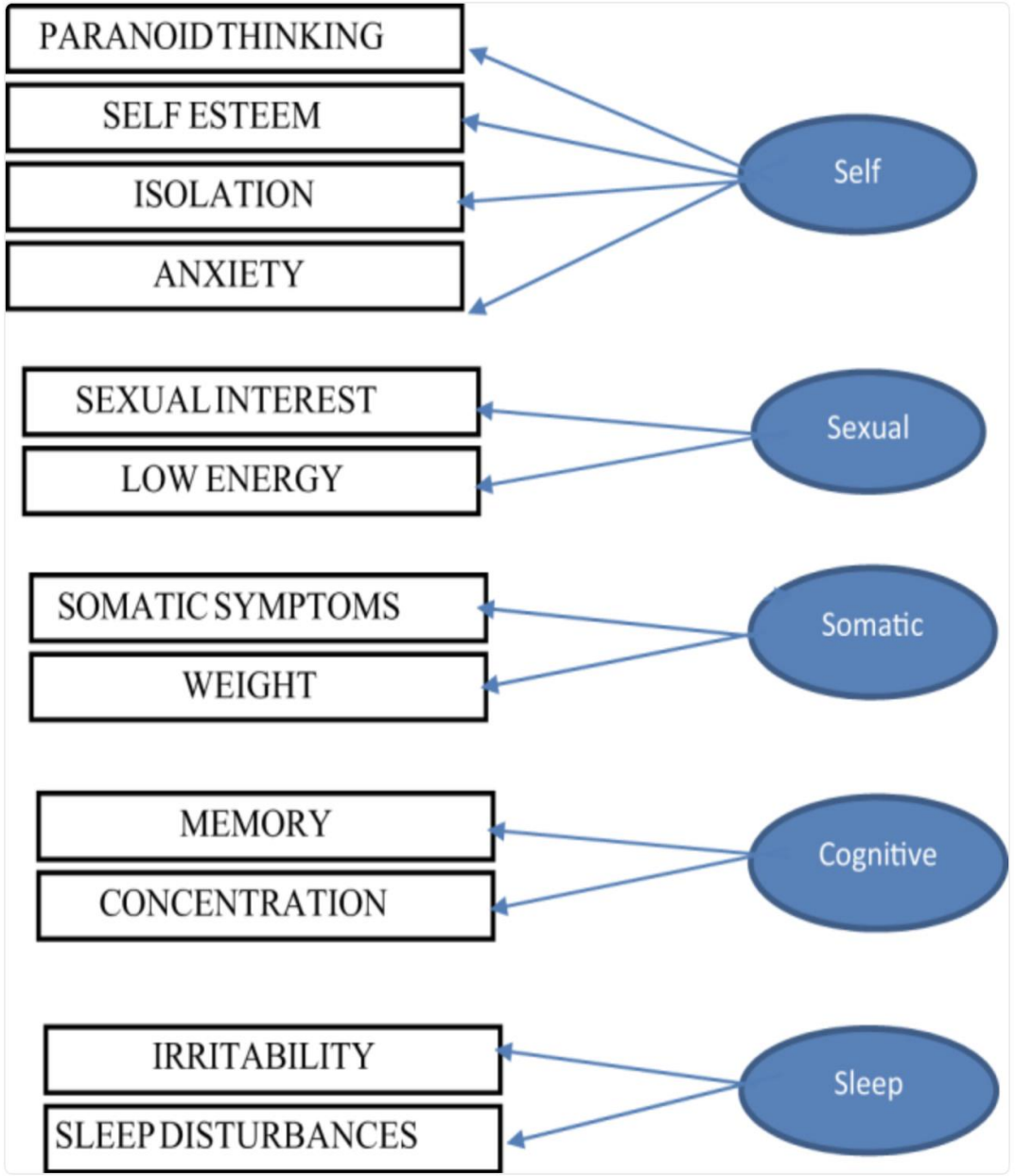
Over the last 2 weeks have you noticed reduced energy levels.
Prompt questions: *Did you feel more tired after activity than normal? Did your activity decrease because you were tired? Did you feel tired most of the time despite decreasing your activity? Did you continually feel tired so that even small tasks like brushing your hair felt draining?*

0	No change in energy, feel active all day
1	More tired after activity than previously
2	Decreased activity because of tiredness
3	Feel tired most of the time despite resting, decreased activity
4	Continually feeling exhausted, even small tasks such as brushing hair feel draining "Bone weary, mind weary"

B – PARANOID THINKING

Over the last 2 weeks have you experienced increased paranoid thinking?
Prompt questions: Have you been feeling guilty? Have you been worried that others think badly of you? Have you been suspicious that others think badly of you? Have you been convinced that others have a low opinion of you or are trying to replace you?

Meno-D


PARANOID THINKING
SELF ESTEEM
ISOLATION
ANXIETY
Self
SEXUAL INTEREST
LOW ENERGY
Sexual
SOMATIC SYMPTOMS
WEIGHT
Somatic
MEMORY
CONCENTRATION
Cognitive
IRRITABILITY
SLEEP DISTURBANCES
Sleep

Examination

- BP 138/82
- CVS – NAD
- Brief neuro examination
- Ht 170 Weight 72kg WC 82cm

- CST UTD
- Mammogram – not yet started screening
- FOBT – NAD

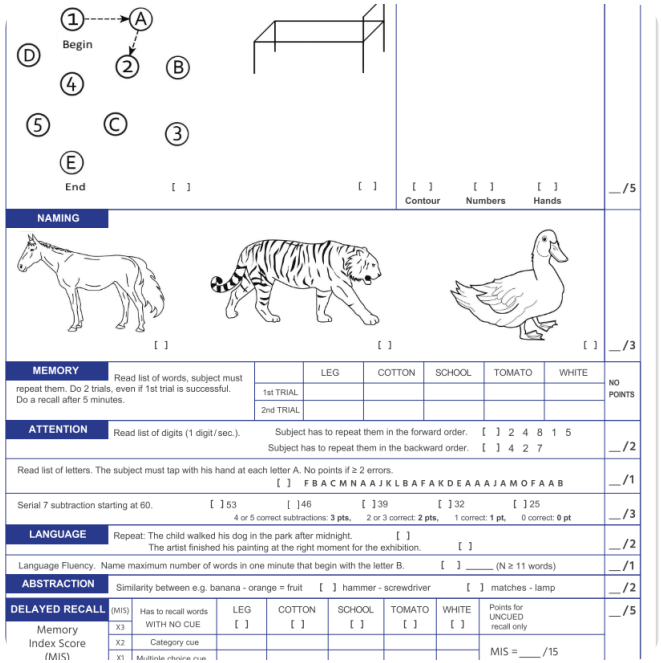
Cognitive assessment tools

- GPCOG
- Mini- Cog
- Montreal Cognitive Assessment (MoCA)
- Telephone Interview for Cognitive Status (TICS)
- Mini Mental State Examination (MMSE)
- Kimberley Indigenous Cognitive Assessment (KICA)
- Roland Universal Dementia Assessment Scale (RUDAS)

- https://www.healthed.com.au/podcasts/cognitive-assessment-tools-limitations-in-general-practice-your-questions-answered/

GP Assessment of Cognition (GPCog)

- Quick
- Includes clock drawing test
- Includes option for collateral history
- Includes link to follow up investigations
- Performs at least as well as SMMSE but takes less time – 4 minutes for person being assessed, 2 minutes for collateral history
- Less influenced by cultural or linguistic background
- Available in multiple languages



MoCA

- More sensitive to early cognitive decline (90% cf 18% MMSE)
- Broader domains assessed executive function, attention, language, memory and visuospatial skills
- Online or paper
- Training is recommended
- 25/30 or under indicates MCI

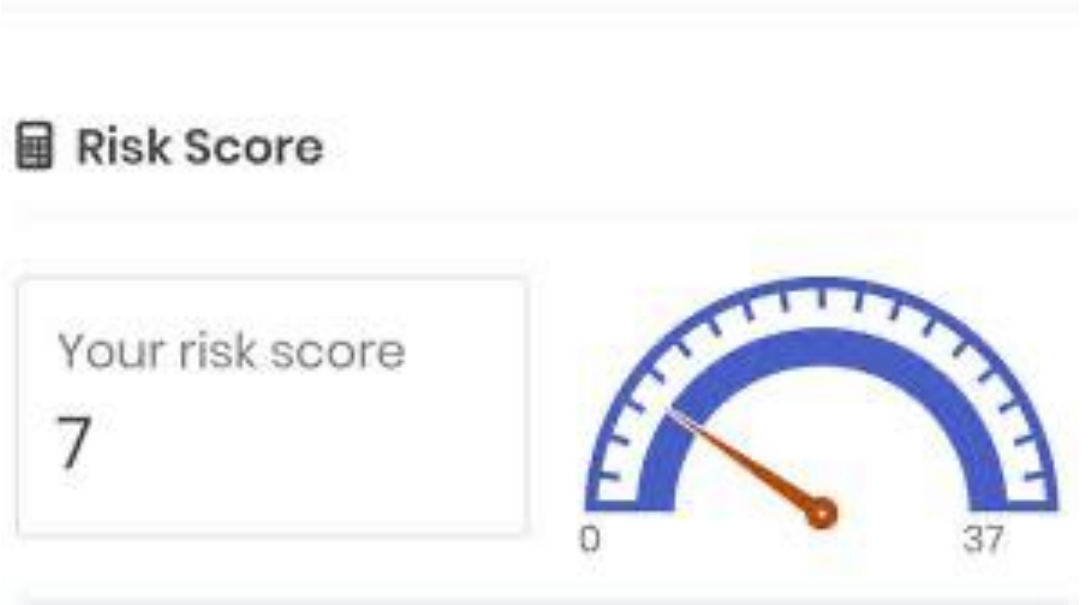
Any investigations ?

Investigations for reversible causes

- Routine
  - Haematology – FBC
  - Biochemistry- EUC,LFT Calcium, Glucose/lipids
  - TFTs
  - Vit B12, folate, ferritin

Dementia risk assessment – Motivational interviewing in action

CogDrisk



Using the Cogdrisk to change behaviour ?

The 5As

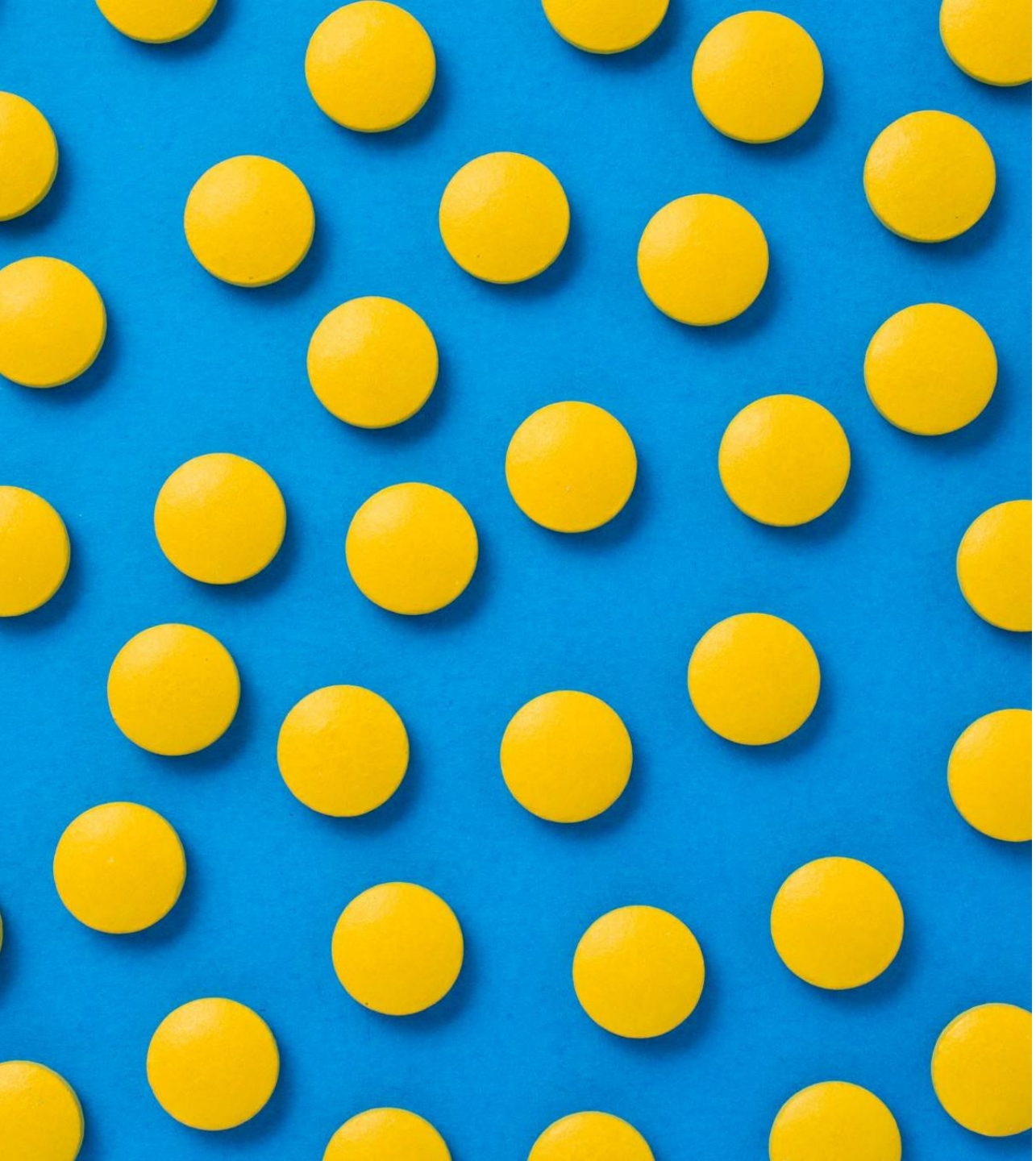
The 5As is a key framework for organising the provision of preventive care in primary healthcare.[18,19] This includes the actions taken by healthcare providers in supporting their patients to change their risk (refer to *Table 2*).

Table 2. The 5As

Ask	• identify patients with risk factors
Assess	• level of risk factor and its relevance to the individual in terms of health • readiness to change • health literacy
Advise/agree	• provide written information • brief advice and motivational interviewing • negotiate goals and targets (including a lifestyle prescription)
Assist	• develop a risk factor management plan that may include lifestyle education tailored to the individual (eg. based on severity of risk factors, comorbidities) and pharmacotherapies • support for self-monitoring
Arrange	• referral to allied health services or community programs • phone information/counselling services • follow-up, prevention and management of relapse

Kristen

- Meno-D 26
- GPCOG – normal
- Bloods – Ferritin 23 otherwise NAD
- LDLs 4.1
- Cogdrisk – 7 identified some areas to optimize
- Feels reassured that she has no objective cognitive or functional impairment but still left with her symptoms



Management

- Investigate/treat iron deficiency
- Treat peri-menopausal symptoms
- ? MHT ?+/- SSRI or similar
- Lifestyle interventions

Support for managing brain fog

Suggested strategies

Education about the link between menopause and cognition

CBT – especially behavioural responses and emotional impact

Specific cognitive strategies- attention pacing , cognitive training ,memory aids

Lifestyle modifications – Sleep, Nutrition, Alcohol , Physical activity

COGtrain-Monash Program HER

- 10 week cognitive training program
- For women worried about brain fog of menopause or any cognitive concern
- Facilitated by 2 neuropsychiatrists
- Private health insurance needed

- Details https://www.cabrini.com.au/services/womens-mental-health/ under group therapy

Fact Sheets

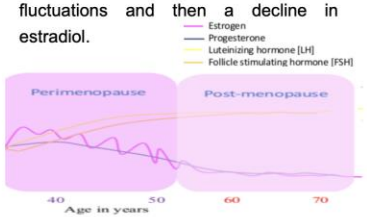
1 **BRAIN FOG DURING MENOPAUSE TRANSITION**

This factsheet describes common cognitive changes (i.e., brain fog, changes in thinking skills, and memory) that women may experience during menopause as well as practical management strategies.

What is Menopause?

Natural menopause occurs 12 months after your final menstrual period. The average age of menopause is around 51 years. Menopausal stages including pre-menopause, peri-menopause (transitional period before menopause), early post-menopause, and late post-menopause, can be defined based on i) menstrual cycle patterns, and ii) hormone levels.

Menopause involves hormonal changes that can be the main cause of menopause symptoms, characterized by fluctuations and then a decline in estradiol.



Every woman's experience of menopause is different, and some may experience symptoms for 5-10 years. Menopause symptoms can be diverse, frequently reported symptoms include:

Vasomotor /Sexual	Neurological, Psychological	Physical
▫ Hot flashes ▫ Night sweats	▫ Sleeplessness ▫ Depression ▫ Anxiety ▫ Irritability ▫ Mood changes ▫ Brain fog	▫ Unusual tiredness ▫ Joint pains ▫ Headaches ▫ Muscle pains ▫ Dry skin ▫ Urinary frequency
▫ Dry vagina ▫ Reduced libido ▫ Uncomfortable intercourse		

What are Typical Cognitive Changes?

Cognitive symptoms (i.e., 'brain fog' or 'cognitive complaints') can be further exacerbated by the above listed symptoms and are experienced in up to 65% of menopausal women. The experience of cognitive symptoms during menopause can vary widely, from fleeting and mild to significantly impacting work and daily life. Current evidence suggests that these changes are temporary, with cognitive improvements in postmenopausal years.

AUSTRALASIAN MENOPAUSE SOCIETY
EMPOWERING MENOPAUSAL WOMEN

Information Sheet

Oestrogen and cognition in the perimenopause and menopause.

KEY POINTS

- Women commonly report memory or cognition changes associated with the menopause transition and menopause. Women may refer to this as 'brain fade' or 'brain fog'.
- However, the contributing roles of menopause related to oestrogen decline, aging, effect of co-morbidities, psycho-social functioning and menopause-related symptoms such as insomnia and hot flushes need clarification.
- Cognitive changes associated with the menopause transition include reduced processing speed and reduced verbal memory. Verbal memory is defined as the ability to encode words and it is influenced by circulating oestradiol.
- MHT has positive or neutral effects of cognitive function in younger peri- or postmenopausal women. The age of the woman, MHT preparation and baseline cognitive function influence this effect.
- Cognitive testing is not indicated unless the symptoms are progressive and interfere with work performance or relationships.

Memory loss in the menopause.

Memory loss associated with menopause comprises poor recollection of recent events (recent recall) or of a while ago (delayed recall). This may manifest as:

- Loss of immediate focus (what was meant to be done)
- Appointments not met
- Distraction
- Misplacement of items
- Time lapses

These are not related to normal cerebral functioning such as learning, deduction and reasoning.

https://www.monash.edu/__data/assets/pdf_file/0007/3800419/meno_31_11_2024_08_05_cgurvich_meno-d-24-00079_sdc2.pdf

Memory, cognition and ageing well – podcast

Save page Copy link

JULY 23, 2024 · S3, E7 · 19 MIN

S3, EP-7 Menopause, Brain Fog and Dementia

Dementia in Practice

Play

Caffeine ?

- Prospective cohort study
- 131821 individuals, 2 cohorts, 43 years FU (NHS and HPFS in US)
- Mean age at baseline 46.2 (NHS) 53.8 (HPFS) 65.7% female
- 11,033 documented cases of dementia
- Higher caffeinated coffee intake (2-3 cups coffee or 1-2 cups of tea) = lower risk of dementia Decaffeinated coffee intake was not associated with dementia risk