Version date: March 2026

Participant Information Sheet

Online Survey

1. **Research Project Title:** Menopausal Women's Understanding of Cognitive Changes, Dementia Risk, and Brain-Healthy Behaviour: An Exploratory Mixed-Methods Study

2. **Background, aims of project**

Many women report changes in their thinking and memory during menopause—things like forgetfulness, difficulty concentrating, or "brain fog." These experiences are common and can be concerning. Some women worry whether these symptoms might be signs of future dementia. At the same time, research shows that midlife (around ages 40-60) is an important time for protecting brain health and reducing dementia risk through lifestyle changes.

This study explores how women experience and interpret cognitive (thinking and memory) changes in midlife and how this relates to thoughts about dementia, and their awareness of brain-healthy behaviours. We are interested in how women make sense of these symptoms, if they are related to how they feel about dementia risk, and what they do (or would like to do) to look after their brain health over the long term. The study does not suggest that dementia risk is caused by menopause, and we recognise that many cognitive symptoms are common and potentially reversible.

We would like to invite you to take part of this study which aims to understand:

- How women experience and make sense of cognitive symptoms (brain fog, memory and thinking changes) during menopause
- Whether these symptoms affect concerns about dementia

- Whether women are aware that midlife/menopause is an important time for brain health
- What motivates women to adopt brain-healthy behaviours (like exercise, healthy eating, staying mentally active)
- What makes it easier or harder to look after brain health during menopause
- What kind of support or information would be most helpful for women

Understanding how women interpret their cognitive symptoms and think about dementia risk will help us design better support and information for women going through menopause. This could help healthcare professionals provide more tailored advice and support, and inform policy and recommendations.

We will not assess individual dementia risk and cannot provide clinical advice as part of this study. Throughout this research, we use the same language as the Scottish Government Women's Health Plan and will use the terms "woman" and "women" in line with that approach.

3. Why have I been invited to take part?

You have been invited because you:

- Are aged 40-60 years
- Are currently experiencing the menopause transition (changes in your periods, or it's been less than 10 years since your final period). We welcome participation from all women experiencing menopause (including but not limited to natural, surgical or medically induced)

- Were assigned female at birth (including cisgender women, transgender men, and non-binary individuals)
- Live in Scotland
- Can read and complete the survey in English
- Have access to the internet

You should not take part if you:

- Are currently pregnant or less than 12 months postpartum (since giving birth)

4. Do I have to take part?

No. Taking part in this study is entirely voluntary. If you do not wish to take part, there will be no penalty or loss of benefits.

If you do decide to take part, you can withdraw your participation at any time without needing to explain anything and just by simply closing your browser for this survey. If you withdraw, we will not collect any more data from you. However, any data collected up until the point that you withdraw will be kept and used in the data analysis.

After completing the survey: You can also withdraw your data within 2 weeks of completing the survey by emailing the researcher with your unique participant ID (which will be shown to you at the end of the survey). After 2 weeks, your data will be anonymised and combined with other responses, making it impossible to identify and remove your individual data.

You will be given this information sheet to keep and be asked to complete an electronic consent form.

5. What will happen if I take part?

If you choose to take part, you will be asked to complete an online survey that takes about 20–25 minutes. You can do this on a computer, tablet, or smartphone at a time and place that suits you.

What the survey asks about:

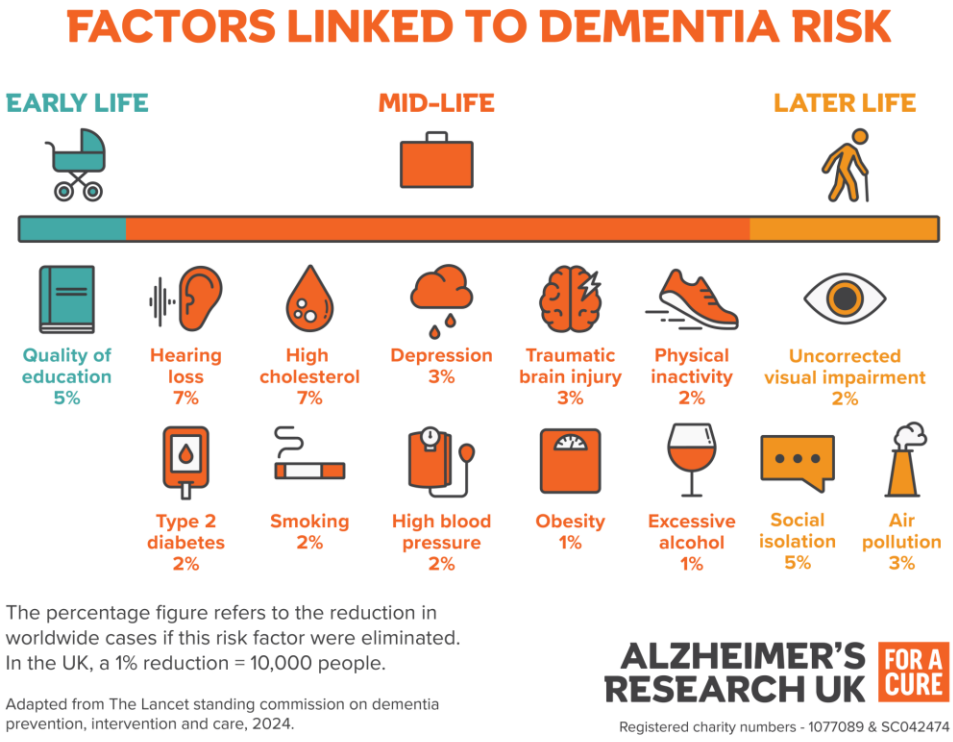
1. Your background information: including age, gender, education, Employment status, Ethnicity, caring responsibilities, relationship status, where you live in Scotland and general health
2. Your menopause status and any treatment

3. Your symptom experiences: Whether you've experienced any changes in memory, concentration, or thinking during menopause and your beliefs about these cognitive experiences: What you think causes them, how long they might last, whether you can control them, and how they affect your daily life

4. Brain health and dementia risk: We will ask about your views and beliefs about dementia, Brain health, and behaviours that reduce dementia risk. In order to answer these questions, it would be helpful to know below definitions:

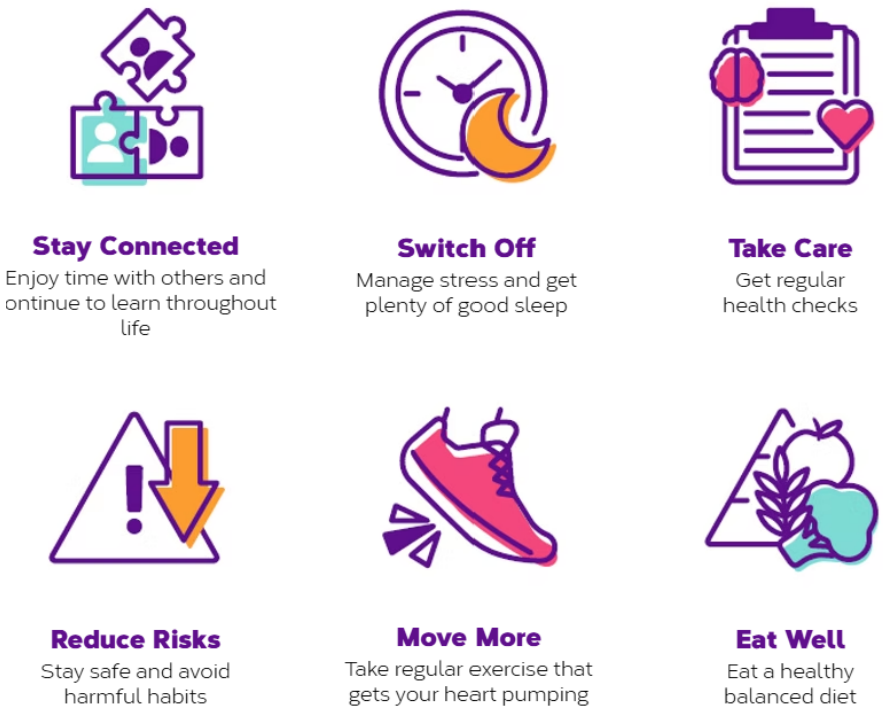
- *What is dementia? Dementia is a term used to describe a group of symptoms affecting memory, thinking, and daily functioning. Alzheimer's disease is the most common type of dementia. Dementia is not a normal part of aging, and many people never develop it.*
- *What is Brain Health? The World Health Organization (WHO) describes brain health as the state of brain functioning across thinking, emotions, behaviour, and social relationships, enabling people to realize their full potential over the life course.*
- What are risk factors for dementia? Risk factors are characteristics or experiences in a person's life, health, or environment that make dementia more likely to develop in the future, including both non-modifiable factors (such as age or genetics) and modifiable factors related to education, lifestyle, physical health, and the environment. The 2024 Lancet Commission on dementia prevention highlights 14 modifiable risk factors which together account for an estimated 45% of dementia cases worldwide. You can see these 14 risk factors illustrated in more detail in the Alzheimer's Research UK infographic below,

which shows how different factors across early, mid, and later life are linked to dementia risk.



- *What are brain-healthy behaviours? Brain-healthy behaviours are lifestyle actions that research shows may help reduce dementia risk, including regular physical activity, healthy eating, staying mentally and socially active, managing cardiovascular health (blood pressure, cholesterol), quality sleep, and not smoking (Livingston et al., 2024). These behaviours target modifiable risk factors identified by the Lancet Commission on Dementia Prevention.*

  Brain Health Scotland identifies six key areas that support lifelong brain health: The infographic below shows the six pillars of brain health.



Optional follow-up interview: At the end of the survey, you will be asked if you would be interested in participating in a follow-up interview (40-60 minutes, via phone, video call, or in-person) to discuss your experiences in more depth. Participation in the interview is completely optional and separate from the survey. If you express interest and being selected for interview, you will be sent a separate detailed information (information sheet and consent form).

6. Are there any potential risks in taking part?

There are no foreseeable risks in taking part. However, some questions ask about your memory and thinking changes, and about concerns regarding dementia. Reflecting on these topics might make you feel slightly uncomfortable or worried. To help, you can skip any question you don't want to answer, and we will provide information about support services and resources at the end of the survey.

7. Are there any benefits in taking part?

Whilst there are no immediate benefits for those people participating in the project, it is hoped that this work will have the following:

Benefits to you:

Some participants may find it helpful to reflect on their experiences and learn more about brain health.

Benefits to others:

Your participation will contribute to important research that could help:

- Improve support and information for women experiencing cognitive symptoms during menopause
- Help healthcare professionals understand and address women's concerns
- Inform public health initiatives about brain health in midlife women

Compensation

As a thank-you for your time, you will be entered into a prize draw (raffle) to win one of five £50 Amazon vouchers. Winners will be randomly selected after the survey closes and notified by email within 2 weeks. You will be asked to provide a contact method (email or phone number) and it will be stored separately, not connected to your survey responses at all (see more details in point 9).

8. Legal basis for processing personal data

As part of this project, we will be recording personal data relating to you (if you choose to provide it for the prize draw or interview follow-up). This will be processed in accordance with the UK General Data Protection Regulation (UK GDPR). Under UK GDPR, the legal basis for processing your personal data will be public interest/the official authority of the University. Further information may be found in the University's Privacy Notices. We will also be processing your

sensitive/special categories of personal information relating to your health (cognitive symptoms, menopausal status, medical diagnoses) for research purposes in the public interest

9. **What happens to the data I provide?**

Your survey responses: Your survey responses will be completely anonymous. We will not collect your name, email address (unless you choose to provide it for the prize draw or interview), or any other information that could identify you in your survey answers. You will be assigned a random unique ID number that is not connected to your identity. All data will be stored securely on the University of Stirling's encrypted servers (UK-based).

Your email address (if provided): At the end of the survey, you will be asked to provide your contact (email preferred) for entering a prize draw. You will also be asked if you are interested in participating in a follow-up interview. If you choose to enter the prize draw or express interest in the interview, you will be asked to provide a contact method (could be an email address or phone number). This will be stored separately from your survey responses in a password-protected file, so your survey answers remain anonymous. Prize draw emails will be deleted immediately after the prize draw is completed (within 2 weeks of survey closure). Interview interest emails will be kept only for participants selected for interviews and deleted within 6 months of data collection.

Who will have access to the data: The researcher and their supervisor(s) will have access to anonymised survey data for analysis. No one else will have access to your data unless you give specific consent for data sharing (see below).

How long will data be kept: Personal data (email addresses) will be deleted within 2 weeks (for prize draw) or 6 months (for interview contacts). Anonymised survey data will be kept on a secure server for a minimum **of 10 years** after publication, in line with university research data retention policies, and then will be securely destroyed. Published research will be publicly available indefinitely (but you will not be identifiable)

Data security: All data stored on encrypted University servers (OneDrive for SharePoint). They are password-protected files and accessible restricted to the research team only. Regular backups to secure University system DataSTORRE.

10. Future uses of the data

Due to the nature of this research, other researchers may find the anonymized data useful for answering other research questions about women's health, menopause, or dementia prevention. We will ask for your explicit consent for your data to be shared in this way and, if you agree, we will ensure that the data collected is untraceable back to you before letting others use it. This is completely optional, you can say no and still participate in the study. If you agree, only fully anonymised data (with all identifying information removed) will be shared.

11. Limits to confidentiality

Please note that assurances on confidentiality will be strictly adhered to unless evidence of wrongdoing or potential harm is uncovered. In such cases the University may be obliged to contact relevant statutory bodies/agencies.

12. Will the research be published?

Yes, the findings from this research will be published in the researcher's doctoral thesis. In addition, the research may be published in Academic journals (peer-reviewed publications), conference presentations or reports for stakeholder organizations (Brain Health Scotland). You will not be identifiable in any report/publication. All data will be presented in aggregate (combined) form or with pseudonyms if individual quotes are used.

If you would like to receive a summary of the study findings, you can opt in at the end of the survey. We will send you a plain-language summary (2-3 pages) by email within 3-6 months of completing the study.

The University of Stirling is committed to making the outputs of research publicly accessible and supports this commitment through our online open access repository STORRE, and, where possible, open access journals.

13. Who is organising and funding the research?

No funding is received; this research is being conducted as part of a doctoral research project at the University of Stirling and self-funded by the researcher. The study is supported by advisory partnerships with Alzheimer Scotland and Brain Health Scotland, who have provided input on the research design and will help share findings with relevant communities and policymakers. These organizations will not have access to your personal data.

14. Who has reviewed this research project?

The ethical approaches of this project have been approved via The University of Stirling General University Ethics Panel. Ethics Approval Reference**: GUEP 2026 24859 20617**

15. Your rights

You have the right to request to see a copy of the information we hold about you and to request corrections or deletions of the information that is no longer required.

You have the right to withdraw from this project at any time without giving reasons and without consequences to you. You also have the right to object to us processing relevant personal data however, please note that once the data are being analysed and/or results published it may not be possible to remove your data from the study.

16. Who do I contact if I have concerns about this study or I wish to complain?

Questions about the research:

If you would like to discuss the research with someone, please contact:

Researcher: Ailin Chen

Email: ailin.chen@stir.ac.uk

Supervisor: Professor Vivien Swanson

Email: vivien.swanson@stir.ac.uk

Concerns or complaints

If you wish to discuss the research with someone not directly involved in the study, please contact:

Dean of Faculty: Professor Alistair Jump

Email: a.s.jump@stir.ac.uk

You have the right to lodge a complaint against the University regarding data protection issues with the Information Commissioner's Office (https://ico.org.uk/concerns/).

Data Protection concerns:

The University's Data Protection Officer is Joanna Morrow, Deputy Secretary. If you have any questions relating to data protection these can be addressed to data.protection@stir.ac.uk in the first instance.

14. Next Steps:

If you would like to take part:

1. Please read this information sheet carefully
2. Ask any questions you have by contacting the researcher
3. If you are happy to proceed, click the link to the online survey
4. You will be asked to provide electronic consent before starting the survey
5. Complete the survey at your own pace (you can save and return to it)
6. At the end, you will be given your unique participant ID and information about support services

You can download or save a copy of this information sheet to keep for your records.

Thank you for reading and considering participating in this research.