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From Knowing to Recognising: When Does Dementia Prevention Evidence Become Personally Relevant? Rethinking the Translation of Dementia Prevention Evidence in Midlife

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Abstract

The evidence supporting dementia risk reduction has grown rapidly. Current guidance takes a life-course view, bringing together healthy behaviours, management of vascular and metabolic conditions, environmental exposures and, increasingly, multidomain approaches. But having evidence is not the same as making that evidence meaningful to the people who receive it.

This conceptual paper examines a point in dementia prevention that is easy to overlook: what happens when population-level evidence reaches an individual and has to be interpreted in the context of everyday life. Awareness, knowledge, health literacy, risk perception, prevention literacy and behavioural intention each describe part of this process. None, however, quite captures the question at the heart of this paper: what does this evidence mean for me, now, and in the circumstances in which I live?

The paper proposes Personal Relevance of Dementia Prevention Evidence (PR-DPE) to describe the process through which a person interprets dementia prevention evidence in relation to their circumstances, life stage, experiences, priorities and perceived capacity to respond. Five interrelated dimensions are proposed: recognition, personal applicability, temporal relevance, personal meaning and perceived agency. These dimensions are situated within the social, environmental, health-system and digital contexts that shape how people understand information and make decisions.

The distinction between knowing and recognising may be especially important in midlife. Dementia may still seem far away, even though many of the factors associated with later risk are already part of everyday life. PR-DPE is not intended to replace risk prediction or dementia prevention literacy, and it is not presented as a validated construct. Instead, it offers a testable way of thinking about the space between encountering evidence and seeing what that evidence means personally, together with a research agenda for measurement, validation and intervention design.

Keywords: Dementia Prevention, Dementia Risk Reduction, Prevention Literacy, Health Communication, Personal Relevance, Midlife, Health Literacy, Risk Perception, Knowledge Translation

1. Introduction

Dementia prevention has moved from a peripheral public health concern to a central component of contemporary dementia policy and research. The evidence base now spans vascular and metabolic health, physical activity, smoking, alcohol use, hearing loss, depression, social isolation, traumatic brain injury, air pollution, education and other potentially modifiable influences across the life course [1].

The World Health Organization's second edition of its dementia risk-reduction guideline, published in 2026, consolidates this direction, adopting a life-course perspective and extending recommendations

across healthy behaviours, management of health conditions, environmental risk factors and tailored multidomain interventions [2,3]. The guideline also explicitly recognises structural and sociocultural barriers, calling for integrated approaches rather than reliance on individual behaviour change alone.

The important question is therefore not simply whether people have access to evidence about dementia risk reduction, but what happens when they encounter it. Someone may know that physical activity, hypertension, hearing loss, smoking or social isolation are associated with dementia risk without seeing how that evidence connects with their own circumstances. Awareness alone may also leave important gaps in motivation, confidence, opportunity or access to support.

A 2026 systematic review and meta-analysis of 155 studies, involving 164,644 participants across 41 countries, found substantial variation in recognition of dementia risk and protective factors. Recognition was below 50% for most established modifiable factors, and recall was considerably lower than recognition [4]. These findings point to a useful distinction: a person may be able to identify a risk factor without necessarily experiencing the evidence as relevant to their own life.

This distinction may be particularly important in midlife. Dementia is still commonly associated with older age, while many of the factors linked to dementia risk accumulate or operate across the life course. People can therefore accept the evidence intellectually while continuing to see dementia prevention as something for a later time.

This paper argues that personal relevance deserves more explicit attention in dementia prevention communication. The question is not only what people know about dementia prevention, but when evidence begins to connect with their own lives and what helps that connection occur.

2. The Expanding Evidence Base for Dementia Prevention

The scientific rationale for dementia risk reduction has strengthened considerably. The 2024 Lancet Commission identified 14 potentially modifiable risk factors across the life course and estimated that addressing them could theoretically prevent or delay a substantial proportion of dementia cases at the population level.

The 2026 WHO guideline extends this evidence-informed approach beyond any single behaviour or intervention, incorporating healthy lifestyles, management of health conditions, environmental exposures and multidomain interventions. The guideline applies to adults without dementia, including those with normal cognition and mild cognitive impairment.

This shift reflects a broader change in how dementia risk is understood. Rather than treating dementia primarily as a condition of later life addressed through individual lifestyle advice and clinical intervention, current thinking increasingly recognises risk as something that develops across the life course and is shaped by social, environmental and structural conditions as well as individual circumstances.

The growing evidence base creates a communication problem of its own. As more risk and protective factors are identified, information has to do more than remain accurate. It also has to be understandable, prioritised and meaningful to different people living in different circumstances. Public knowledge remains incomplete, so the challenge is not simply to provide more information but to help people make sense of what matters and why.

3. The Limits of an Information-Centred Approach

Information is an essential part of prevention, but information alone is unlikely to be enough. [4] found that recognition of established modifiable dementia risk factors was uneven across the international literature. In comparison to less obvious affects, familiar lifestyle elements were identified more frequently [5]. Pooled recognition estimates included 71.5% for physical activity, 66.6% for social isolation and 65.0% for traumatic brain injury, compared with 30.4% for obesity, 25.4% for air pollution and 19.5% for education.

Factor	Pooled recognition
Physical activity	71.5%
Social isolation	66.6%
Traumatic brain injury	65.0%
Obesity	30.4%
Air pollution	25.4%
Education	19.5%

Pooled Recognition of Selected Dementia Risk and Protective Factors

Note: These figures should not be treated as a single measure of what the world's population knows. They are pooled estimates from heterogeneous studies and are more useful for showing variation than for describing a universal level of knowledge. The difference between recognition and recall is also important: people may identify a factor when it is presented to them but struggle to bring it to mind without prompting. Even better recognition, therefore, leaves another question unanswered: does the person

understand why the evidence matters in their own circumstances?

4. From Awareness to Personal Relevance

Dementia prevention communication already draws on several related concepts, including awareness, knowledge and risk perception. These concepts are useful, but they answer different questions and should not be treated as interchangeable.

Concept	Central question
Awareness	Do I know that dementia risk can be influenced?
Knowledge	What do I know about dementia and its risk factors?
Risk-factor recognition	Can I identify factors associated with dementia risk?
Risk perception	How do I perceive my likelihood or vulnerability?
Health literacy	Can I access, understand, appraise and use health information?
Dementia prevention literacy	Can I understand and use information relevant to reducing dementia risk?
Behavioural intention	Am I intending to do something differently?
Personal relevance	What does this evidence mean for me, at this point in my life?

Distinguishing Related Concepts in Dementia Prevention Engagement

Qualitative evidence provides an important starting point for this argument. [6], in a synthesis of 50 papers involving more than 4,500 people, found that personally relevant short- and long-term benefits could create value and support action, alongside the importance of trusted support. Personal relevance is therefore not a new phenomenon. The proposition developed here is that it deserves to be examined more explicitly as a distinct problem in the translation of dementia prevention evidence.

5. A Proposed Concept: Personal Relevance of Dementia Prevention Evidence

Personal Relevance of Dementia Prevention Evidence (PR-DPE) is proposed here as: The process through which an individual interprets dementia prevention evidence in relation to their own circumstances, life stage, experiences, priorities and perceived capacity to respond.

PR-DPE concerns interpretation rather than simple exposure to information. It does not require a person to believe that they are personally 'at risk', nor does it assume that everyone should respond in the same way. The central idea is simpler: population evidence becomes personally relevant when people can connect it with their own circumstances. Someone may recognise that hypertension is associated with dementia while not yet seeing the relevance of managing their own blood pressure; similarly, they may know that physical activity supports healthy ageing without having connected that knowledge with dementia prevention. Personal relevance therefore sits in the space between knowing and meaningful application.

6. Five Dimensions of Personal Relevance

The five dimensions are not intended to form a rigid sequence. A person may move between them, experience several at once, or find that one becomes more important as circumstances change. The model is therefore better understood as a set of interacting processes than as a step-by-step pathway.

Dimension	Guiding question
Recognition	I recognise the evidence.
Personal applicability	This relates to my circumstances.
Temporal relevance	This matters at my stage of life.
Personal meaning	I understand why it matters to me.
Perceived agency	I can see realistic ways to respond.

The Five Dimensions of Personal Relevance

These dimensions are embedded in the circumstances of everyday life. Health, family, work, finances, community, culture, access to healthcare and the digital information environment can all shape whether evidence feels relevant and whether a realistic response is possible. Context is therefore part of the model, not simply a background influence.

6.1. Recognition

Recognition is the most basic dimension: whether an individual notice and acknowledges the evidence as relevant information rather than simply encountering it. A person may recognise that high blood pressure is associated with dementia risk while having previously understood hypertension primarily as a cardiovascular issue — recognition therefore involves more than exposure; it involves noticing the relationship between the

evidence and dementia prevention specifically. The inconsistency in international recognition documented by [4], particularly for factors less prominent in public discourse, demonstrates why this stage cannot be assumed. Recognition is foundational, but it is only the beginning.

6.2. Personal Applicability

Personal applicability concerns whether a person connects the evidence with their own circumstances, the shift from "is this a dementia risk factor?" to "does this describe something relevant to me?" Applicability may depend on health status, family circumstances, work, caring responsibilities, socioeconomic resources and access to healthcare [7,8]. Information about physical activity, for instance, may be highly relevant to one person but difficult to translate into action for another because of disability, work patterns, financial constraints or limited access to suitable environments. This distinction prevents personal relevance from collapsing into individual responsibility.

6.3. Temporal Relevance and the Midlife Problem

Temporal relevance concerns whether a person believes the evidence matters now. This may be particularly important in midlife, when dementia can be intellectually accepted as relevant across the life course while still being regarded, psychologically, as a concern for later. The evidence may be accepted while remaining temporally distant.

Life stage	Possible interpretation of dementia prevention
Earlier life	Dementia may seem remote.
Midlife	Risk factors and health trajectories may already be relevant, while dementia itself may still feel distant.
Later life	Dementia may feel more personally immediate.

Life Stage and the Temporal Relevance Problem

Note: This is not intended to imply that dementia prevention begins at any single age; rather, it illustrates a communication challenge in which the temporal distance of the outcome may not match the temporal relevance of the underlying risk factors. The issue has practical significance in Australia, where a 2026 national campaign communicated dementia risk-reduction information to Australians at age 50, explicitly positioning midlife as an opportunity for action [9,10]. Such initiatives make it important to understand not only whether information reaches people in midlife, but how it is interpreted once it does.

6.4. Personal Meaning

Personal meaning concerns the interpretation of why prevention matters. A person may understand that physical activity is associated with reduced dementia risk without connecting that fact to a personally valued outcome. [6] found that people weigh broader short- and long-term benefits when evaluating dementia risk-reduction behaviours, dementia prevention does not necessarily operate as an isolated motivational goal. For many, maintaining independence, cardiovascular health, mobility, social participation or the capacity to continue valued activities may provide more immediate meaning than reducing an abstract future probability. Effective communication may therefore need to connect dementia prevention evidence with outcomes that already matter in people's present lives.

6.5. Perceived Agency

Personal relevance is unlikely to be sufficient if individuals perceive no realistic capacity to respond. Perceived agency concerns whether a person can identify an appropriate and feasible response to the evidence — and agency is not equivalent to personal responsibility. A recommendation to increase physical activity carries different practical implications for people with disability, chronic illness, caring responsibilities, financial constraints or limited access to safe environments. The 2026 WHO guideline explicitly recognises structural and sociocultural barriers and situates equity within the broader dementia risk-reduction agenda [3]; this model treats personal relevance as something produced within circumstances, not as grounds for attributing failure to individuals when appropriate choices are unavailable.

7. The Difference Between Knowing and Recognising

The five dimensions introduced above do not operate as isolated psychological states; they describe a single, interacting process through which population-level evidence is encountered, interpreted and possibly acted upon.

Figure 1 sets out this proposed architecture as a whole, situating PR-DPE between exposure to dementia prevention evidence and its eventual translation into engagement or response. The distinction this section develops next, between knowing and recognising concerns what happens inside that central box

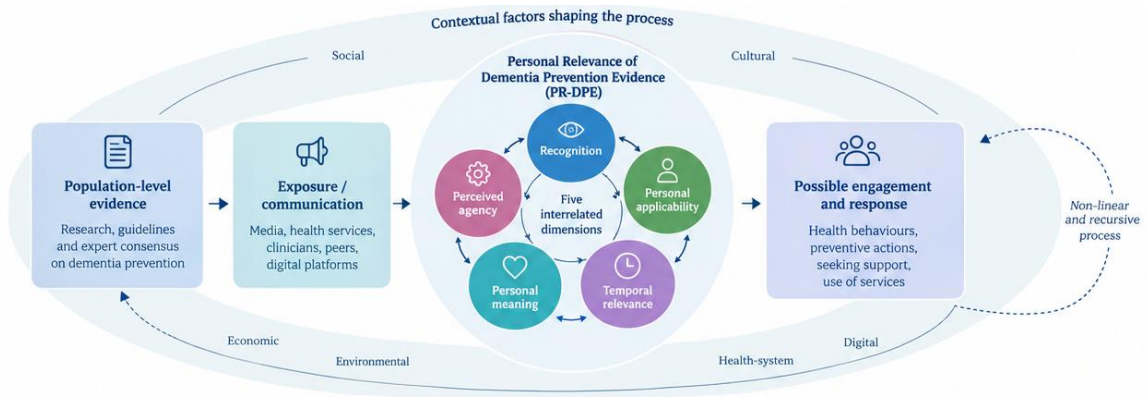

Figure 1: From Dementia Prevention Evidence to Personal Relevance: A Conceptual Framework

Note: PR-DPE is proposed as a conceptual bridge between exposure to dementia prevention evidence and its personally meaningful interpretation. The five dimensions: recognition, personal applicability, temporal relevance, personal meaning and perceived agency are understood as interacting rather than sequential processes. Social, cultural, economic, environmental, health-system and digital contexts shape how evidence is encountered, interpreted and acted upon. The conceptual framework has not yet undergone empirical validation.

The distinction can be summarised directly by contrasting the two positions side by side.

Knowing	Recognising
"I know it's linked to dementia."	"I get why this is important to me."
Information-centred	Person-centred
General evidence	Personally interpreted evidence
Cognitive recognition	Cognitive and contextual interpretation
May remain abstract	Connected to lived circumstances
Does not necessarily imply action	May create a basis for appropriate response

Knowing Versus Recognising

The distinction is conceptual rather than binary. Knowledge remains essential; personal relevance does not replace it, but represents a possible process through which knowledge acquires personal meaning.

8. Personal Relevance Is Not the Same as Risk Perception

Risk perception concerns how people understand or evaluate their likelihood of experiencing an outcome; personal relevance is broader. A person may perceive their dementia risk as low but still consider prevention highly relevant because they value maintaining cognitive health, while another may perceive their risk as high but feel unable to act. The two constructs may overlap without being equivalent — a distinction that matters because risk communication can produce unintended effects when people interpret risk information through fear, fatalism or stigma. [6] identified the need for sensitive, trusted approaches capable of helping people interpret dementia risk information without simply increasing anxiety. Personal relevance should not, therefore, be operationalised as "feeling at risk".

9. Personal Relevance Is Not Personalised Risk Prediction

Personalised risk prediction is another related but distinct concept. A personalised risk estimate may be informative, but providing an estimate does not automatically provide interpretation, meaning or agency: a person can receive a risk score without understanding what it means, which factors drive it, which are modifiable, what uncertainty surrounds it, what action is appropriate, or what support is available.

Recent qualitative work examining personalised dementia risk education found that participants aged 49–69 generally described positive experiences of learning about their individual risk, although the study was small (n = 11) and conducted as part of intervention refinement [11]. The findings illustrate the potential value of personalised information but do not establish that risk estimation itself creates personal relevance. Personalisation and personal relevance should therefore remain conceptually separate.

10. Evidence from Public Awareness Campaigns

Public campaigns offer a useful test of the distinction between information exposure and personal interpretation. A Danish nationwide campaign targeting adults aged 40–75 combined mass media with an online risk-assessment tool and knowledge resources. Overall awareness of dementia risk reduction did not

increase significantly between independent pre- and post-campaign samples; however, the number of correctly identified risk and protective factors did increase, and reported campaign exposure was associated with greater awareness, recognition, motivation and self-reported lifestyle change [12].

These findings demonstrate that communication effects are multidimensional: a campaign may change recognition without changing broad awareness, and exposure may be associated with motivation without producing consistent behavioural change. This supports examining intermediate processes rather than treating communication as a simple information-transfer event.

11. Digital Dementia Education

Digital education offers considerable opportunity to personalise information, tailor communication and reach large populations — but recent evidence is as instructive about the limits of knowledge-centred approaches as it is about their promise. A 2026 randomised controlled trial involving 510 participants found that an internet-based multimedia dementia risk-reduction intervention improved risk-factor knowledge and was associated with a modest improvement in self-reported physical activity, while effects on several other health behaviours were limited [13].

The findings matter for two reasons: well-designed digital education can improve knowledge, but knowledge gains do not automatically translate into broad behavioural change. This distinction is central to the concept of personal relevance proposed here, and to the broader translation pathway it implies, from scientific evidence, through public communication and individual interpretation, to personal meaning, perceived agency and, ultimately, a supported response. That pathway should not be assumed to be linear, deterministic or universal.

12. Personal Relevance and Behaviour

The proposed construct does not claim that personal relevance necessarily produces behaviour. Behaviour is shaped by capability, opportunity, motivation, social norms, resources and environmental conditions. The value of personal relevance may instead lie in offering a more plausible bridge between information and the subsequent processes of decision-making. [6] found that personal relevance and personally valued benefits formed part of a broader set of mechanisms influencing dementia risk-reduction behaviour, alongside trusted support, choice, control and social context — suggesting personal relevance is best investigated as one component of a wider behavioural and implementation system, not a direct predictor of behaviour on its own.

13. Personal Relevance and Equity

A major risk in prevention communication is the implicit assumption that everyone has equivalent capacity to respond to information. They do not. Access to healthcare, income, education, safe environments, transport, digital resources, social support and culturally appropriate services shape both exposure to risk and capacity to modify it. Both the 2024 Lancet Commission and the 2026 WHO guideline emphasise social and environmental determinants and the need to address inequalities rather than relying solely on individual behaviour change [3], and Australian commentary has similarly called for dementia prevention communication that addresses cultural, commercial and social determinants and is appropriately designed for different population groups [14]. Personal relevance, accordingly, should be understood as contextual agency rather than individual responsibility.

14. Relationship to Dementia Prevention Literacy

Personal relevance should not replace dementia prevention literacy; the two concepts address different questions. Prevention literacy concerns the capacity to access, understand, evaluate and use information relevant to dementia risk reduction. Personal relevance concerns the interpretation of that information in relation to a person's circumstances. A person may have high prevention literacy but low personal relevance if the information feels distant or disconnected from current priorities; conversely, a person may perceive prevention information as highly relevant but lack sufficient knowledge to determine what action is appropriate.

	Low personal relevance	**High personal relevance**
Low prevention literacy	Information is difficult to understand and feels disconnected.	Information matters but the appropriate response remains unclear.
High prevention literacy	Information is understood but may remain abstract.	Information is understood, personally meaningful and potentially actionable.

Prevention Literacy and Personal Relevance: A Two-Dimensional View

This two-dimensional framing offers a potentially useful basis for future research examining how the two constructs jointly shape engagement with dementia prevention evidence.

14.1. Relationship to Prior Work

This paper is situated within a broader, ongoing programme of realist-informed scholarship developed by the author, which examines context, interpretation, engagement and behavioural response as connected elements of health communication rather than as separate stages of a linear information-transfer model [15].

PR-DPE's five-dimension structure, and its insistence that interpretation is shaped by context rather than occurring inside the individual alone, extends that programme's central argument into the specific domain of dementia prevention. Readers interested in the wider theoretical position that underlies this paper, including

its treatment of engagement as a precondition for interpretation, rather than a downstream consequence of it are directed to that companion body of work.

15. Positioning Personal Relevance in the Translation of Dementia Prevention Evidence

The preceding discussion suggests that the translation of dementia prevention evidence involves more than whether people encounter, understand or remember information. Evidence may be available, understandable and even recognised as important without becoming personally relevant. Conversely, people may perceive information as relevant to their own circumstances without yet having the knowledge, confidence or opportunity to act on it.

This distinction places PR-DPE alongside, rather than in opposition to, established constructs concerned with health information, risk, capability and behaviour. Its particular focus is the point at which dementia prevention evidence becomes connected with a person's own circumstances, priorities, life stage and perceived possibilities for response. The construct therefore addresses a conceptual space that may sit between exposure to evidence and subsequent engagement, while recognising that the relationship is unlikely to be linear.

15.1. Positioning PR-DPE Among Related Constructs

Personal relevance does not arise in isolation from existing concepts in health communication and behaviour change. People may possess health literacy, recognise dementia risk factors, perceive themselves to be at risk, feel capable of changing a behaviour, or intend to act, without necessarily experiencing the underlying prevention evidence as personally meaningful. Conversely, evidence may feel highly relevant even when a person lacks the knowledge or confidence needed to respond.

PR-DPE is therefore proposed as a complementary construct rather than a replacement for established concepts. Its particular focus is whether particular prevention evidence becomes personally applicable and meaningful in relation to an individual's circumstances, life stage, priorities and perceived possibilities for response.

Table 1 positions PR-DPE alongside several closely related constructs and identifies the conceptual distinction being advanced.

Construct	Central question	Distinguishing focus of PR-DPE
Health literacy	Can I access, understand, appraise and use health information?	Health literacy concerns the capabilities required to work with health information. PR-DPE asks whether particular prevention evidence becomes personally meaningful and connected to the person's circumstances.
Dementia prevention literacy	Can I understand and use information relevant to reducing dementia risk?	Dementia prevention literacy focuses specifically on understanding and using dementia prevention information. PR-DPE focuses on whether that information becomes personally applicable, meaningful and relevant at a particular point in life.
Risk perception	How vulnerable or likely do I believe I am to developing dementia?	PR-DPE does not require a person to perceive themselves as being at high risk. It encompasses a broader process involving applicability, timing, meaning and perceived possibilities for response.
Self-efficacy	Do I believe I can carry out a particular behaviour?	Perceived agency is one dimension of PR-DPE, but the construct extends beyond confidence in performing a behaviour to whether the evidence is recognised as applicable and meaningful in the first place.
Behavioural intention	Do I intend to change what I do?	PR-DPE is positioned earlier in the proposed translation process. It does not assume that recognising relevance will produce intention, nor that intention will necessarily result in behaviour.

Table 1: Positioning Personal Relevance of Dementia Prevention Evidence (PR-DPE) in Relation to Neighbouring Constructs

Note: The comparison is conceptual rather than empirical. The constructs overlap in important respects and should not be treated as mutually exclusive. PR-DPE is proposed as a complementary construct whose distinguishing question is whether dementia prevention evidence becomes personally meaningful in relation to an individual's circumstances, life stage, priorities and perceived capacity to respond. Its distinctiveness remains an empirical question requiring measurement development and construct-validation studies.

15.2. Mapping the Five Dimensions Against Existing Constructs

A further question concerns whether the five proposed dimensions represent a genuinely distinguishable construct or simply recombine elements already captured by established measures. This distinction is particularly important because PR-DPE incorporates concepts that have clear parallels in health literacy, risk perception, self-efficacy, patient activation and behavioural theories. The purpose of the present framework is not to claim that these established constructs are inadequate, but to specify the particular interpretative question that PR-DPE adds: whether dementia

prevention evidence becomes applicable, timely, meaningful and actionable in relation to a person's own circumstances [16].

The proposed dimensions should therefore be understood as requiring empirical comparison with existing measures rather than as already established independent factors. Table 2 maps each dimension against its closest conceptual and measurement neighbours and identifies the point at which the proposed PR-DPE dimension extends beyond the existing construct. This mapping provides a basis for future scale development and for testing convergent and discriminant validity. In particular, a valid PR-DPE measure should demonstrate expected relationships with established constructs while retaining sufficient empirical distinctiveness to show that it captures more than a simple combination of health literacy, perceived risk and self-efficacy.

PR-DPE dimension	Core question	Closest existing construct(s)	What existing measures capture	What PR-DPE adds or changes
Recognition	Do I recognise the evidence as relevant to dementia prevention?	Dementia risk-factor knowledge/recognition; health literacy	Ability to identify, understand or access health information and recognise dementia risk/protective factors.	Recognition is specifically about noticing the dementia-prevention significance of evidence, rather than general health-information competence or factual knowledge.
Personal applicability	Does this evidence relate to my circumstances?	Health literacy; perceived susceptibility/ risk perception	Health literacy captures access, understanding, appraisal and application; risk perception captures perceived vulnerability.	Applicability does not require perceiving oneself as highly susceptible. It concerns whether evidence is seen as relevant to one's actual circumstances, constraints and priorities.
Temporal relevance	Does this matter at my stage of life?	Temporal orientation; psychological distance/ construal; future-oriented constructs	Existing approaches examine temporal distance, future orientation or representation of distant outcomes.	PR-DPE applies temporal relevance specifically to the translation of dementia-prevention evidence, including the possibility that dementia feels distant while its risk factors are present now.
Personal meaning	Do I understand why this matters to me?	Outcome expectations; perceived benefits; personally valued outcomes	Behavioural theories commonly examine expected benefits and consequences of action.	Personal meaning concerns the connection between prevention evidence and personally valued outcomes, rather than simply judging whether a behaviour has benefits.
Perceived agency	Can I see a realistic way to respond?	Self-efficacy; patient activation; perceived behavioural control	Self-efficacy measures confidence/ capability; patient activation captures knowledge, confidence and participation in managing health.	PR-DPE situates agency within the circumstances that make a response realistically possible and explicitly separates agency from individual responsibility.

Table 2: Mapping the Five PR-DPE Dimensions Against Existing Measurement Constructs

Note. The mapping is conceptual rather than evidence that any existing measure operationalises PR-DPE. The proposed dimensions overlap with established constructs and should be tested for convergent and discriminant validity. The table identifies the closest measurement domains and the proposed point of distinction; it does not assume that the five dimensions are empirically independent.

Two established theories deserve direct engagement because they use closely related language. The Elaboration Likelihood Model treats personal relevance as the variable that determines whether a message is processed centrally, through careful evaluation of argument content, or peripherally, through surface cues such as source credibility [17]. PR-DPE shares the term but is not a restatement of it: where the Elaboration Likelihood Model asks whether a single message is processed carefully, PR-DPE asks a broader question about whether a body of evidence connects with a person's circumstances, timing and sense of agency, independent of how any one message happens to be delivered.

Construal-Level Theory offers a second point of contact, since it explains why temporally, spatially or socially distant outcomes tend to be represented abstractly while near outcomes are represented concretely [18]. This is directly relevant to the midlife problem described in Section 6.3: dementia prevention evidence may be construed abstractly precisely because the outcome feels distant, even when the underlying risk factors are concretely present in a person's current health and circumstances. Construal-Level Theory therefore offers a plausible mechanism for temporal relevance specifically, while personal relevance in this paper's sense remains the broader construct within which temporal relevance is one of five dimensions.

Taken together, these distinctions suggest that PR-DPE is best treated as a provisional conceptual construct whose value depends on whether its proposed dimensions can be distinguished empirically from established forms of health literacy, risk perception, self-efficacy and behavioural intention.

16. Implications for Public Health Communication, Primary Care and Digital Design

The framework suggests dementia prevention campaigns may need to move beyond communicating lists of risk factors. The task is not simply to increase the number of people who can correctly identify dementia risk factors, but to help people understand why the evidence matters, whether it relates to their circumstances,

what is realistically changeable, and where appropriate support exists. This does not require alarmist or invasively personalised messaging; it is consistent with connecting evidence to priorities people already hold, such as healthy ageing, cardiovascular health, mobility, social participation, independence and quality of life.

Primary care offers a natural setting for this translation. Clinicians do not need to deliver a comprehensive dementia risk assessment to every patient; a short, responsive conversation addressing what the evidence says, how it relates to this person's circumstances, and what response is appropriate and feasible may be sufficient, consistent with the WHO's preference for integrating risk reduction within existing preventive care rather than isolating it as a separate pathway.

Digital platforms are particularly well placed to explore personal relevance because they can tailor content to life stage, interests, knowledge and user-selected priorities. Meaningful personalisation, however, is more than inserting a person's name into generic content or presenting a numerical risk score. A genuinely person-centred system would need to connect with the user's circumstances, explain uncertainty, distinguish modifiable from non-modifiable influences, provide meaningful choices, avoid unnecessary fear or stigma, recognise structural constraints, and identify appropriate sources of further support — a bar the digital interventions evaluated to date have only partly met.

16.1. A Worked Example: A Realist (Context–Mechanism–Outcome) Framework for Digital Intervention Design

The implications for digital design outlined above can be made concrete through a realist-informed Context–Mechanism–Outcome (CMO) framework for evaluating digital dementia education, developed in the author's earlier work and shown in Figure 2. That framework distinguishes the conditions that shape engagement and outcomes (context), the reasoning and responses triggered in users that drive change (mechanisms), and the short-, medium- and long-term results of the intervention (outcomes), treating these as jointly configured rather than independent.

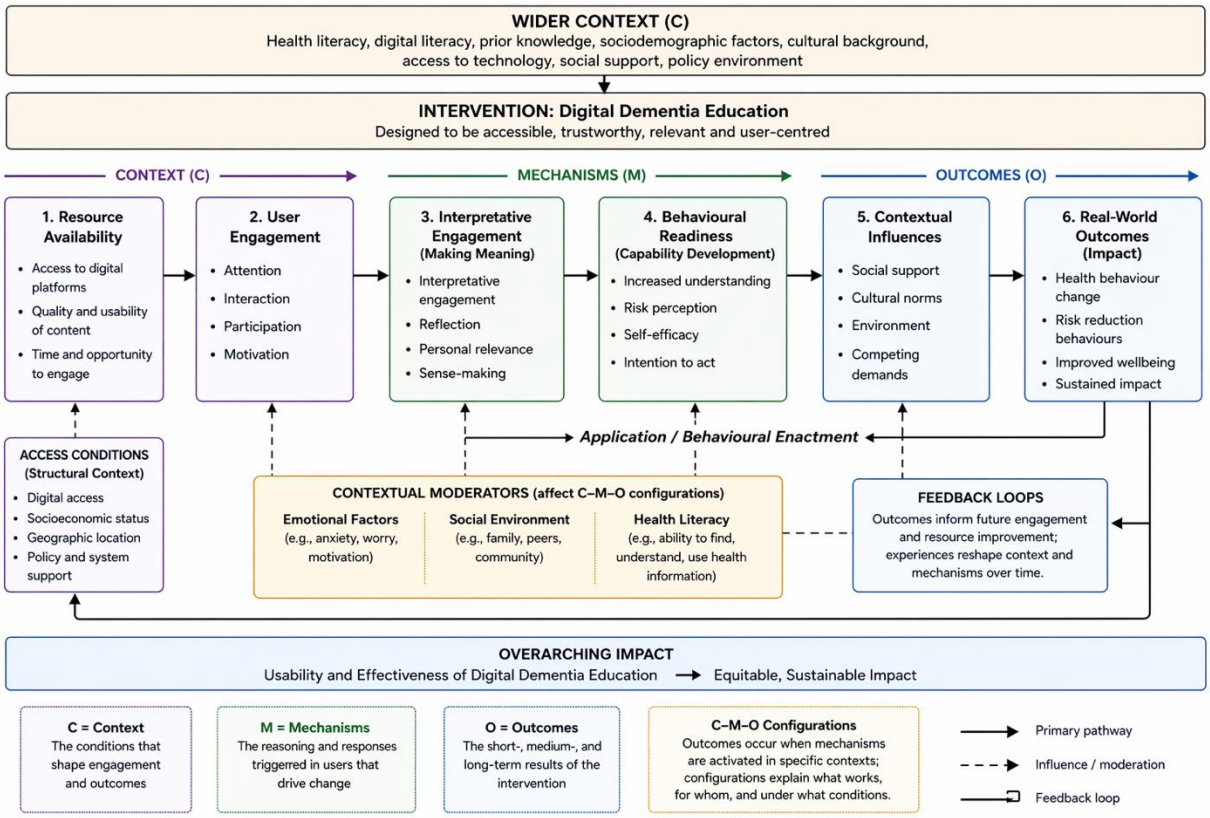

Figure 2: A Realist-Informed Conceptual Framework for the Evaluation of Digital Dementia Education
Source: *Carey (2026).*

Note: The model conceptualises digital dementia education as a context-dependent process involving resource availability, user engagement, interpretative engagement, behavioural readiness, contextual influences and real-world outcomes. It provides the earlier realist-informed foundation for the present paper's focus on personal relevance.

The framework maps directly onto the five PR-DPE dimensions. "Interpretative engagement" (Mechanism 3) corresponds most closely to recognition, personal applicability and personal meaning, since it concerns reflection, sense-making and the perceived relevance of information encountered within the intervention. "Behavioural readiness" (Mechanism 4) corresponds to perceived

agency, capturing whether increased understanding translates into a sense that a realistic response is available. Temporal relevance operates less as a discrete mechanism here than as a contextual moderator, shaping how readily users engage with material framed around a distant outcome. Read this way, the CMO framework offers one worked illustration of how PR-DPE's conceptual dimensions could inform the design and evaluation of a specific intervention, rather than remaining only a descriptive account of individual interpretation.

17. Implications for Research and Measurement

The value of PR-DPE ultimately depends on whether it can be distinguished empirically from related constructs, measured reliably, and shown to vary across people and contexts. The five dimensions outlined above therefore provide a starting point for an empirical research agenda focused on measurement, construct validity, temporal development, contextual variation, and the relationship between personal relevance and subsequent engagement or behaviour.

Table 3 summarises initial research questions and possible approaches for testing these propositions.

Research question	Possible approach
Can personal relevance be reliably measured?	Scale development and psychometric validation
Is personal relevance distinct from prevention literacy?	Construct validity studies
Does personal relevance predict behavioural intention, and behaviour beyond knowledge?	Prospective and multivariable longitudinal studies
Does personal relevance vary by life stage, culture or socioeconomic circumstance?	Comparative and cross-cultural studies
How does personal relevance develop and change over time?	Longitudinal qualitative research
Can communication or personalised risk information increase relevance?	Experimental and comparative trials
How do structural conditions influence agency?	Mixed-methods implementation research

Table 3: Initial Research Agenda for Personal Relevance of Dementia Prevention Evidence

Measurement development should extend beyond asking whether people "understand" dementia prevention, and should carefully distinguish perceived relevance from perceived risk. For example, "I believe dementia prevention information is relevant to people like me" assesses relevance, whereas "I think I am personally likely to develop dementia" assesses perceived risk. These should not be treated as interchangeable. Development work should include cognitive interviewing and testing across socioeconomic, cultural, educational and age groups to determine whether the construct operates consistently across populations, and should establish content validity, construct validity, discriminant validity, internal consistency, test–retest reliability and responsiveness to intervention.

A central component of validation should be testing whether PR-DPE provides explanatory information beyond established neighbouring constructs. Initial studies should therefore administer candidate PR-DPE items alongside validated measures of health literacy, dementia prevention knowledge or risk-factor recognition, perceived susceptibility or risk, self-efficacy and, where appropriate, patient activation or behavioural intention. Convergent validity would be expected where conceptual overlap is substantial, particularly between perceived agency and self-efficacy, while discriminant validity would require the proposed dimensions to retain empirically distinguishable variance. Incremental validity could then be examined by testing whether PR-DPE explains variation in relevant outcomes after accounting for these established constructs. Such testing would provide a more stringent basis for determining whether PR-DPE represents a distinct construct, a higher-order configuration of existing constructs, or a context-specific reformulation of established motivational and health-literacy concepts.

A staged programme could proceed from concept development and measurement, through population and midlife-specific research, to communication trials comparing information-centred and relevance-centred approaches, digital implementation studies, and finally evaluation of how the approach can be embedded in public health, primary care and digital education practice.

18. What Would Falsify or Challenge the Concept?

A useful conceptual construct must be open to empirical challenge. PR-DPE would be weakened if personal relevance could not be reliably distinguished from existing constructs such as prevention literacy, perceived risk or behavioural intention. It would also be challenged if it showed no meaningful association with outcomes after accounting for knowledge, motivation and socioeconomic circumstances, or if interventions designed specifically to enhance personal relevance produced no measurable improvement over conventional information provision. These are treated here as open empirical questions: the purpose of this paper is not to establish PR-DPE as validated, but to formulate a proposition precise enough to be tested.

19. Limitations

Several limitations should be acknowledged. First, PR-DPE is a proposed conceptual construct rather than a validated psychological or behavioural measure, and its five dimensions require systematic empirical testing before they can be treated as established components of dementia prevention research. Second, personal relevance is not, in itself, a new idea in this field: [6] had already identified personal relevance and personally meaningful benefits as important influences on motivation and behaviour in their thematic synthesis of qualitative evidence. The contribution of this paper is therefore narrower than the discovery of the phenomenon itself; it lies in making personal relevance an explicit object of study and in distinguishing it clearly from the related but non-identical constructs of knowledge, awareness, risk perception and behavioural intention.

A further limitation concerns conceptual boundaries, which may prove difficult to establish in practice. Personal relevance, as defined here, may overlap substantially with self-efficacy, an individual's belief in their own capacity to carry out a given behaviour and with perceived susceptibility and outcome expectations, both central constructs within the Health Belief Model [19,20]. Until PR-DPE is measured directly and tested alongside these established constructs, it remains unclear whether personal relevance behaves as a genuinely distinct dimension of prevention engagement or largely restates existing motivational theory in different terms. This is an empirical question for future validation work rather than one that can be resolved through conceptual argument alone.

The construct's generalisability across cultural and socioeconomic contexts is similarly untested. Much of the evidence drawn upon in this paper originates from high-income-country settings, and the substantial cross-country variation in recognition of dementia risk factors reported by [4] across 41 countries suggests that personal relevance is likely to be shaped by cultural, linguistic and health-system context in ways a single framework may not adequately anticipate. Personal relevance may also fluctuate over time rather than remain a fixed trait: a new health diagnosis, a family member's experience of dementia, a change in caregiving responsibilities or employment, or simply progression to a different life stage could each alter how a person interprets the same evidence. This possibility has not yet been tested longitudinally and should be treated as an open empirical question rather than an assumption built into the model.

Relatedly, the relationship between personal relevance and behaviour is unlikely to be linear. A person may recognise that dementia prevention evidence is relevant to their own life while still lacking the resources, opportunity or environmental support required to act on it; personal relevance should not, therefore, be expected to predict behaviour change in isolation from these other conditions. Finally, there is a risk that the framework could be misread as shifting responsibility for dementia prevention onto individuals. This is not its intention. Personal relevance is understood throughout this paper as arising within structural, socioeconomic, environmental and health-system conditions, and the broader evidence base continues to support intervention at multiple levels, including policy and health-system approaches, rather than individual behaviour change alone.

20. Key Messages

Several messages run through the argument above. Knowledge remains necessary: people need accurate evidence about dementia risk and risk reduction, and communication of that evidence should continue to improve. But knowing that a factor is linked to dementia is not the same as feeling that the evidence has anything to do with you personally, and this gap can matter most in midlife, when dementia itself still feels far off even though the relevant risk and protective factors are already part of daily life.

Personalisation and personal relevance also need to be kept separate. A personalised risk estimate may provide useful information, but it does not automatically provide meaning, a sense of agency or practical support. Personal relevance develops within the circumstances in which people live, including family responsibilities, work, financial resources, culture, healthcare access and the wider environment. For that reason, PR-DPE should be treated as a proposition to investigate rather than an established feature of dementia prevention communication.

21. Contribution to Health Sciences

The proposed contribution extends beyond dementia education. PR-DPE offers a way of describing an intermediate part of health evidence translation: the point at which people move from encountering information to interpreting what it means in the circumstances of their own lives. This matters because prevention depends not only on the availability and accuracy of evidence, but also on whether that evidence can be understood in context, connected with personally valued outcomes, and considered alongside the opportunities and constraints that shape everyday choices.

For health sciences, the concept provides a possible bridge between health literacy, risk communication, behavioural science, implementation research and person-centred care. It also creates a practical research question: can interventions be designed and evaluated not only for whether they increase knowledge, but for whether they help people recognise relevance without creating unnecessary fear, stigma or individual blame?

If PR-DPE can be measured and shown to add explanatory value beyond existing constructs, it could provide a useful framework for designing and evaluating more person-centred approaches to health communication.

22. Conclusion

Dementia risk reduction now has a considerably stronger evidence base than it did even a few years ago, and communicating that evidence well has become a correspondingly harder problem. People are being asked not simply to know about dementia, but to work out how a growing body of population-level evidence bears on their own lives.

This paper has proposed Personal Relevance of Dementia Prevention Evidence (PR-DPE) as a conceptual way of examining that question. It comprises five proposed dimensions—recognition, personal applicability, temporal relevance, personal meaning and perceived agency—within the social, economic, cultural, health-system and digital environments in which people live. The concept may be particularly useful in midlife, where the future nature of dementia can sit alongside risk and protective factors that are relevant in the present. It also offers a way to distinguish personalised risk information from communication that is genuinely meaningful to the person receiving it.

The proposition remains deliberately modest. PR-DPE is not a replacement for knowledge, prevention literacy, risk assessment or behaviour-change theory, and making information personally relevant will not necessarily produce behaviour change. Its value will ultimately depend on whether empirical research shows that the distinction helps us understand, measure and improve the translation of dementia prevention evidence.

Declarations

Generative AI Use

The author used AI-based language tools (Claude, Anthropic) to assist with editing, formatting and reference organisation during preparation of this manuscript text. Generative AI (OpenAI ChatGPT) was separately used to assist with visual design and refinement of Figure 2, which is reproduced from the author's earlier published work. All content, arguments, citations, figures and conclusions were reviewed and are the responsibility of the author.

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Conflicts of Interest

The author declares no conflicts of interest.

Ethics Approval

Not applicable. This is a conceptual paper and did not involve human participants, animal subjects, or the collection of new empirical data.

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