

Conceptual paper

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Fear, Fatalism and Avoidance: An Affective-Appraisal Extension of Realist Context–Mechanism–Outcome Reasoning for Digital Dementia Risk-Reduction Education

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Abstract

Dementia risk-reduction education is increasingly accessible online, but access to information does not necessarily translate into engagement or action. Dementia is widely feared, and for some people, information about their own risk may generate responses that discourage rather than encourage further engagement. This conceptual paper extends an existing realist framework for digital dementia education [1], which conceptualises emotion as a contextual moderator, by proposing emotional appraisal as a mechanism through which educational information may influence engagement and behavioural readiness. Synthesising the realist evaluation framework established by [2], with appraisal theory and existing literature on dementia anxiety, this paper proposes four evaluative appraisals: perceived threat, perceived controllability, fatalism, and stigma. These appraisals are proposed to shape three observable response patterns: approach, ambivalence, and avoidance.

Within the proposed framework, emotional appraisal is positioned between interpretative engagement and behavioural readiness, while avoidance may subsequently feed back to reduce future engagement with dementia education. Four context–mechanism–outcome configurations are proposed, including two in which emotional appraisal contributes to disengagement, together with five propositions that can be examined empirically. The framework extends Pawson and Tilley's realist logic to a domain in which emotional responses may operate not only as contextual influences but also as mechanisms that shape whether educational information is engaged with, interpreted, and acted upon. It therefore provides a potential explanation for why dementia education may fail to produce intended outcomes despite the availability and accessibility of information, while offering implications for the design of digital education, behaviour-change strategies, and health communication.

The framework is conceptual and has not yet been empirically tested; its value will depend on whether future realist, mixed-methods evaluation with midlife adults supports, refines, or challenges the propositions advanced.

Keywords: Dementia Prevention, Risk Reduction, Digital Health Education, Realist Evaluation, Emotional Appraisal, Fear of Dementia, Information Avoidance, Midlife

1. Introduction

Close to half of all dementia cases worldwide may be linked to 14 risk factors that people can, in principle, change, and many of those factors begin to matter in midlife [3]. It is no surprise,

then, that dementia prevention has become a public health priority and that digital resources aimed at midlife adults have multiplied. What we know much less about is what happens once someone opens one of these resources. Knowing more about dementia risk

does not reliably lead to doing anything differently, and the steps between the two are poorly mapped [1,4,5].

I have tried to map some of those steps in earlier work. The framework in [1], treats digital dementia education as a process that unfolds in context: people have to reach a resource, engage with it, make sense of it and become ready to act, and whether any of this leads to real-world change depends on the circumstances around them. Later papers added a prevention-literacy account of the translation problem [5], a more precise statement of context–mechanism–outcome (CMO) relationships [6], the idea of preventive capacity [7], the difference between knowing something and recognising it as personally relevant [8], and a design-oriented version that draws on futures thinking [9]. See Appendix 1 for these publications.

The issue emerged from my earlier work, which repeatedly highlighted a gap between the availability of dementia prevention information and what people are subsequently ready or able to do with it. Having access to accurate information does not necessarily lead to behavioural readiness or sustained changes in behaviour, which prompted me to look more closely at what happens between receiving and understanding information and deciding whether, or how, to act.

One thing is still missing, and it is a large one. People do not meet dementia information as neutral readers. Dementia is among the most feared conditions of later life, and recent work shows that fear and avoidance are measurable responses to dementia risk well before old age [10]. A systematic review of fear of dementia in people without a diagnosis describes how fear can turn into avoidance, including avoidance of information, when people believe dementia cannot be prevented or that they lack the resources to cope [11]. Education designed to engage people can, in these circumstances, send them the other way. In the framework as published, emotional factors such as anxiety, worry and motivation appear as one of three contextual moderators [1]. That acknowledges that emotion matters. It does not say how the emotional response to a particular piece of content operates inside the pathway.

This paper fills that gap. I propose that emotional appraisal is better treated as a mechanism, positioned between interpretative engagement and behavioural readiness, and I work through what follows from that: the constructs involved, the configurations in

which they might produce approach or avoidance, the relationship to existing models, and what could be tested. This is a refinement and not a new framework. The realist logic of [2] and the structure of the earlier work stay as they are. I add one mechanism, its negative configurations and a way of examining them.

2. Background

2.1. The Realist Foundation

Unlike traditional assessment methodologies that focus solely on whether a program succeeds or fails, realist evaluation shifts the analytical focus toward understanding the specific conditions under which an initiative thrives. Grounded in the foundational work of [2], this approach investigates what particular components achieve results, which specific stakeholders' benefit, the unique environments required, and the underlying causal mechanisms at play.

The answer is built from CMO configurations: outcomes occur when particular mechanisms are triggered in particular contexts. [12], argued that a mechanism is best understood as the interaction between the resources an intervention provides and how people reason about, and respond to, those resources. That definition matters here, because an emotional response to educational content is exactly that kind of reasoning. I do not claim to have originated realist evaluation or CMO thinking. What I am doing is applying them to a specific problem and specifying them further, which is the kind of work the realist tradition invites.

2.2. The Programme Framework

The framework in [1], shown in Figure 1, runs from resource availability (access, quality, usability, time) to user engagement (attention, interaction, participation, motivation), then to interpretative engagement (reflection, personal relevance, sense-making) and behavioural readiness (understanding, risk perception, self-efficacy, intention to act). Contextual influences and real-world outcomes follow. Beneath the pathway sit three contextual moderators (emotional factors, social environment and health literacy) and feedback loops that let outcomes shape later engagement. A realist-informed mixed-methods study of midlife adults has begun to operationalise these constructs [13]. The framework itself remains conceptual, and its relationships are propositions to be examined and refined.

Figure 1 reproduces the original framework so that the extension proposed in Section 4 can be read against it.

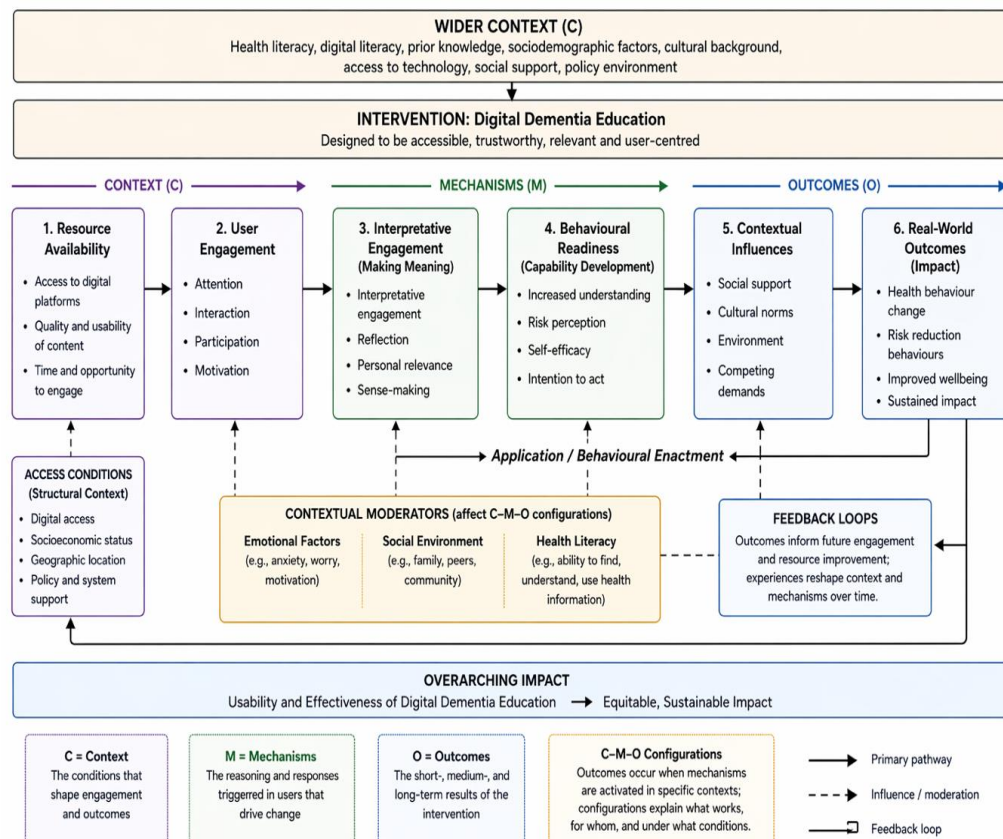


Figure 1: Realist-Informed Conceptual Framework for Digital Dementia Education

Note: Reproduced from Carey (2026a) [1]. C = context; M = mechanisms; O = outcomes. Solid arrows show the primary pathway, dashed arrows show influence or moderation, and the feedback loop shows outcomes informing later engagement and resources. Contextual moderators (emotional factors, social environment and health literacy) affect the context–mechanism–outcome configurations.

2.3. Emotional Responses to Dementia Risk

Worry about developing dementia is common among adults who have no diagnosis [14]. In a prospective cohort of 197 cognitively healthy adults aged 40 to 59, higher midlife dementia risk, assessed with CAIDE and LIBRA scores, was associated with greater dementia-related fear and avoidance about four years later, measured with a Fear-Avoidance of Memory Loss scale. The review mentioned above connects this to the Health Belief Model and to a fear-avoidance mechanism.

It also notes that fear of being labelled, excluded or becoming a burden can intensify fear, and it warns against education that leans only on fear appeals, since stressing severity and irreversibility may raise anxiety, stigma and avoidance of care. This fits a wider literature on information avoidance, which shows that people sometimes steer away from health information to manage the distress they expect it to cause [15], and a meta-analysis of fear appeals suggests that threat messages work best when they are paired with efficacy information [16].

Two further strands bear directly on the present argument. One concerns interventions. A randomised trial of a web-based

programme for highly fearful older adults without cognitive impairment reported reductions in dementia-related fear and avoidance in both study arms [17], which suggests that these patterns are not fixed. Research by [18], expanded the traditional information–motivation–behavioural skills model to account for cognitive anxiety. Utilising a cross-sectional design, they identified that fear of dementia and personal self-efficacy act as key mediators, generating significant indirect effects that ultimately shape whether individuals adopt dementia-preventive habits. The other strand concerns realist work in dementia, which has been applied to special care units, a regional health literacy project and Recovery College courses [19–21]. In the searches I carried out, I found no realist programme theory of digital dementia risk-reduction education that specifies an affective mechanism, apart from the emotional factors listed as moderators in [1].

A secondary concern involves social marginalisation; directives framing dementia reduction purely through behavioural modifications risk fostering a form of "lifestyle stigma". As highlighted by [22], such framing exacerbates existing health disparities, particularly among vulnerable populations who encounter systemic barriers to modifying their daily living habits.

Together these studies show that emotional responses to dementia risk are real, measurable and relevant to prevention messaging. What they do not give us is a context-sensitive, mechanism-level account of how those responses operate inside a digital educational pathway, or of why the same resource draws one person in and repels another. That is the gap this paper addresses.

3. Why Emotion Belongs Among the Mechanisms

Treating emotional factors as a moderator makes sense for features people carry with them. Someone who has looked after a parent with dementia, who has a family history, or who is generally anxious brings that to the encounter, and it colours how the content lands. But a moderator of this kind does not describe a second thing that is going on: the emotional response the content itself provokes while the person is reading, watching or listening.

Four features help to tell a mechanism from a moderator here. A mechanism is triggered by the resource, whereas a moderator is

there before it. A mechanism is a response to what the resource offers, in the sense used by [12]. A mechanism can change within one person from moment to moment, for instance between a reassuring section and a frightening one in the same programme. And a mechanism helps explain why different people respond differently to identical content. Emotional appraisal, in the sense of Lazarus and [23], meaning the judgement of whether an encounter is threatening and whether one can cope, has all four features. The division I propose is simple. Stable emotional disposition and prior experience stay in context as moderators, exactly as in [1]. The appraisal that the content triggers becomes a mechanism on the main pathway. Nothing in the original framework is overwritten.

4. The Affective-Appraisal Extension

4.1. Constructs

I propose four appraisals and three response patterns (Table 1). They are working definitions, and where they sit relative to existing constructs will need to be tested.

Construct	Working definition	How it differs from existing programme constructs
Perceived threat	The judgement that dementia risk information points to a serious danger to oneself.	Personal relevance [8], is recognising that information applies to you. Threat is how dangerous you judge that to be.
Perceived controllability	The judgement that the risk can be influenced by actions open to the person.	Self-efficacy in the readiness box is confidence in carrying out a behaviour. Controllability is whether acting can affect the risk at all.
Fatalism	The belief that dementia is inevitable or that preventive effort is pointless.	Preventive capacity [7], is about managing many demands. Fatalism is about whether the effort seems worthwhile.
Stigma	Anticipated or internalised negative judgement, including blame for ‘lifestyle’ risk, labelling and fear of exclusion.	Social environment is a moderator. Stigma here is the appraisal the content evokes, which that environment may shape.
Response patterns	Approach (receptive, continuing engagement), ambivalence (mixed or uneven engagement) and avoidance (disengaging from, skipping or putting off dementia information).	Extends user engagement by describing its direction and quality once appraisal has happened.

Table 1: Proposed Constructs

Note: These are working definitions for conceptual development, not validated measures.

4.2. The Extended Pathway

The extension places emotional appraisal between interpretative engagement (box 3) and behavioural readiness (box 4) of the original framework (Figure 2). Once people have made sense of the content and seen its relevance to themselves, they appraise it: how threatening is it, can I do anything about it, is it all inevitable anyway, will I be blamed. The pattern of answers shapes the response. Approach supports readiness, ambivalence produces uneven readiness, and avoidance reduces later engagement through a feedback loop back to user engagement (box 2), using the loops already present in the original framework. The rest of the

pathway, including contextual influences and real-world outcomes, is untouched.

Stable disposition, prior experience, social environment and health literacy continue to moderate the configurations, including the appraisal mechanism itself, as Figure 2 shows.

Figure 2 shows the extension. The original pathway stays in grey, and the additions are in colour: the appraisal mechanism, the three responses and the avoidance loop.

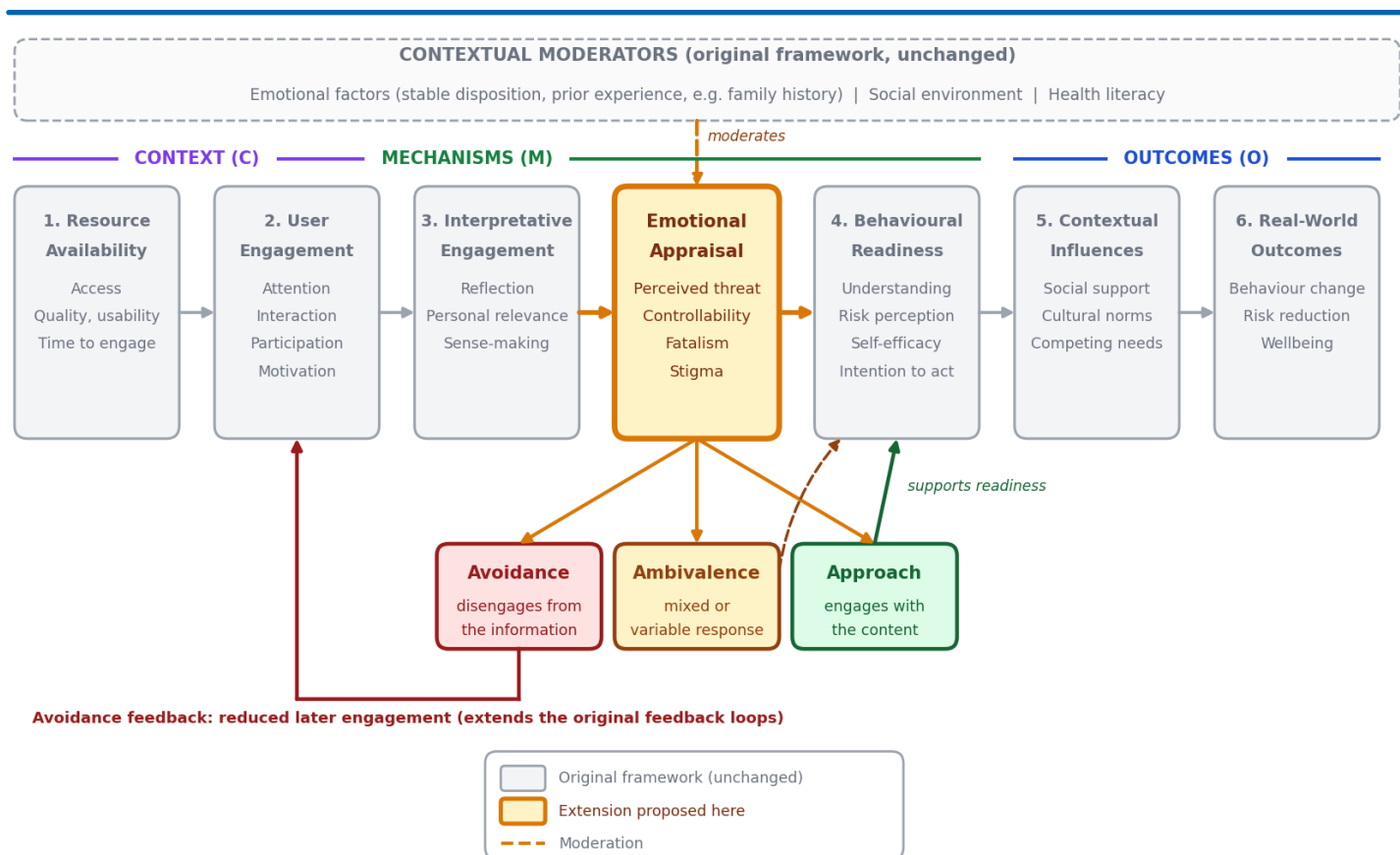


Figure 2: Extension of the Framework: Emotional Appraisal as A Mechanism

Note: The original framework [1] is shown in grey and is unchanged. Emotional appraisal (perceived threat, perceived controllability, fatalism and stigma) is proposed as a mechanism between interpretative engagement and behavioural readiness. Approach supports readiness, ambivalence produces variable readiness, and avoidance reduces later engagement through a feedback loop to user engagement. Stable emotional disposition and prior experience remain contextual moderators. The extension is conceptual and untested.

Figure 2 isolates the addition. Figure 3 shows how it sits within the whole framework. It uses the original layout and numbering, with the new mechanism labelled 3a so that boxes 1 to 6 keep their

numbers from [1] and it brings together the contextual moderators, the response patterns and the feedback loops in a single view.

	Context	Resource	Mechanism (appraisal)	Outcome
C1	Family history; supportive social environment; some prior knowledge	Content that presents risk as modifiable, with concrete actions	Threat is acknowledged and judged manageable; controllability is high	Approach: continued engagement; supports readiness
C2	Experience of caring for someone with advanced dementia; few perceived resources; fatalistic norms	Content that stresses risk and severity	Threat outweighs controllability; fear and fatalism dominate	Avoidance: disengagement; weaker readiness; less later engagement
C3	Financial pressure; competing demands	Lifestyle directives that overlook barriers	Anticipated blame (lifestyle stigma) provokes defensive rejection	Avoidance or dismissal; erosion of trust
C4	Moderate knowledge; competing demands; mixed social messages	Balanced content on risk and action	Threat and controllability both moderate; wanting to know alongside fear	Ambivalence: intermittent engagement; uneven readiness

Table 2: Provisional Context–Mechanism–Outcome Configurations
Note: Configurations are illustrative and untested.

4.4. Feedback Over Time

The original framework lets outcomes shape later engagement. The extension makes one of those loops explicit. Avoidance reduces later engagement and with it the chance that the appraisal will ever change, whereas approach increases exposure to content that may strengthen a sense of control. Because appraisal is a response and not a fixed trait, an avoidance pattern is in principle reversible if later resources, framing or support shift it. That is a proposition for testing, and it matters for design (Section 7). As demonstrated by [17], in their randomised trial, the documented declines in

psychological distress and avoidant habits lend credence to the theory that these behavioural trajectories can be successfully modified.

5. Relationship to Existing Frameworks

None of this replaces established models of threat, coping and behaviour (Table 3). The Extended Parallel Process Model, with its distinction between danger control and fear control, is probably the nearest relative, and I want to be open about the overlap.

Framework	Relevant contribution	How the present extension differs
Health Belief Model [24]	Perceived susceptibility, severity, benefits and barriers predict health action.	Treats appraisal as a response triggered by a particular resource in a particular context, and models avoidance configurations and feedback.
Protection Motivation Theory [25]	Threat appraisal and coping appraisal together shape protective intention.	Keeps the threat and coping logic but places it inside a context-contingent, realist pathway instead of a general predictive model.
Extended Parallel Process Model [26]	Fear appeals lead to danger control or fear control depending on perceived efficacy.	Closest analogue. The extension adds fatalism and stigma, places appraisal inside an educational pathway and links it to interpretation and readiness.
COM-B [27]	Capability, opportunity and motivation drive behaviour.	COM-B does not say how people respond emotionally to content. The extension locates that response between interpretation and readiness.
Fear-avoidance intervention research [17]	Fear and avoidance of memory loss in highly fearful older adults can be reduced by a psychological programme.	Treats fear as something to reduce in people who already have it. The extension asks how education itself may provoke or ease appraisal, and for whom.
Information–motivation–behavioural skills model with fear [18]	Fear of dementia and self-efficacy mediate links to preventive behaviour.	A variable-based, cross-sectional model. The extension specifies context-dependent configurations, negative as well as positive, and feedback over time.
Appraisal theory [23]	Behaviour depends on appraisal of threat and of coping resources.	Supplies the theoretical basis for the mechanism, applied here to digital dementia education.
Programme constructs (Carey, 2026k, 2026m, 2026n see Appendix 1) [7-9]	Preventive capacity, personal relevance and futures thinking.	Each addresses a different stage. The extension addresses the emotional response that may precede or undermine them.

Table 3: Relationship to Existing Frameworks

So, the claim is not that emotion influences health behaviour, which is well established. The claim is narrower: that emotion's role as a mechanism within a realist programme theory of digital dementia education can be specified, including its negative configurations and its effects over time. Whether that adds explanatory value beyond existing models is an empirical question.

6. Illustrative Scenarios

The three scenarios below are hypothetical composite examples developed by the author to illustrate the realist configurations proposed in this paper. They are not drawn from individual participants, participant quotations, or empirical cases. Instead, they are used to show how the same digital dementia education resource might be experienced differently depending on a person's circumstances, prior experiences, perceptions, and sense of what is possible. The scenarios are illustrative rather than predictive and should not be taken to suggest that people in similar circumstances will necessarily respond in the same way.

- **A Recent Carer:** A woman in her early fifties has spent several years caring for her mother, who had advanced dementia. She opens a digital dementia education programme and reaches a section about dementia risk and future decline. The information is clearly relevant to her, but the emphasis on severity and progression brings back difficult memories of her mother's illness and her own experience of caring for her. Instead of feeling more informed and able to act, she begins to feel that dementia is frightening and that there is little she can do about it. She closes the programme and does not return. This illustrates configuration C2, in which previous experience and strong emotional responses increase the perceived threat of dementia, while a sense of control remains limited. The result is avoidance and reduced engagement with the programme.
- **A Busy Professional with No Exposure:** A man in his late forties works long hours and has no family history of dementia. The programme provides information about dementia risk alongside practical actions that may help reduce risk. He can see that some of the information is relevant to him, although dementia does not feel like an immediate personal concern. Some of the suggested actions seem manageable, while others are difficult to fit around his work and existing commitments. He therefore engages with the programme in an uneven way, completing some modules but returning to others only occasionally. This illustrates configuration C4, where limited personal salience and competing demands result in some readiness to engage, but also uncertainty about which actions are realistic or worthwhile.
- **Lifestyle Advice Under Constraint:** A woman in her late forties lives on a low income, works shifts and cares for

two children. The programme encourages people to increase physical activity and improve their diet as part of dementia risk reduction. Although the advice is intended to be helpful, she experiences some of it as unrealistic in light of her financial circumstances, limited time and caring responsibilities. She feels that the advice places responsibility on her for changes that are not entirely within her control. Rather than encouraging her to engage, the mismatch between the advice and her circumstances leads her to dismiss the programme. This illustrates configuration C3, where contextual constraints shape how prevention advice is interpreted and can result in resistance and disengagement.

Taken together, these scenarios illustrate a central realist proposition: the same educational resource does not necessarily produce the same response in every person or setting. What happens depends partly on the circumstances in which the resource is encountered, how the person interprets it, and the responses or mechanisms that it activates. The scenarios are therefore not presented as evidence of particular outcomes. Their purpose is to make the proposed configurations easier to understand and to demonstrate how a realist approach can explain variation in engagement rather than assuming that providing the same information will produce the same result for everyone.

7. Implications for Design

If appraisal works as proposed, design decisions look somewhat different. What follows are hypotheses, not settled recommendations.

The central idea is to pair threat with control. Showing risk next to credible, specific things a person can do may support a sense of controllability, whereas severity alone risks overwhelming people. Letting users set the pace and the depth, and offering action-oriented material before or alongside risk material, should help in the same way.

Psychological safety follows from this. Options to pause or opt out, a plain statement that risk is not diagnosis, and signposting to support are all consistent with the safeguards proposed in [9]. So is avoiding language that blames people for circumstances they cannot easily change, which risks lifestyle stigma and the inequities that come with it [22,28]. A warm, engaging tone, in line with the design requirements in [9], may also reduce avoidance without costing accuracy.

8. Testable Propositions and Evaluation Approach

Table 4 sets out five propositions that follow from the extension.

	Proposition	Possible examination
P1	Emotional appraisal predicts the pattern of engagement (continuing versus disengaging) beyond personal relevance.	Appraisal measures alongside relevance; engagement data such as drop-off and skipped content.
P2	Perceived controllability moderates the link between perceived threat and approach: high threat with high controllability goes with approach, and high threat with low controllability with avoidance.	Quantitative interaction analysis; think-aloud and interview data on how people reasoned.
P3	Fatalism and stigma are associated with avoidance regardless of how much people know.	Knowledge and appraisal measures; qualitative exploration of dismissal and disengagement.
P4	The same resource produces approach in some contexts and avoidance in others.	Comparison across contexts to identify and refine CMO configurations.
P5	Avoidance reduces later engagement and readiness, whereas approach strengthens them.	Repeated measures or follow-up engagement data.

Table 4: Propositions

These propositions fit the mixed-methods realist evaluation outlined in the programme [1,9,13]. Possible sources include appraisal and avoidance measures, such as the Fear-Avoidance of Memory Loss scale used by [10], engagement analytics, think-aloud observation and in-depth interviews, interpreted retroductively to refine the configurations. Any empirical work would need ethics approval and a distress protocol, because the topic can itself provoke fear, and it would need to avoid implying a diagnosis or offering clinical advice.

9. Significance and Contribution

9.1. Extending Pawson and Tilley

[2], offered a way of reasoning about interventions, not a ready-made theory of any one of them. The substantive theorising was left to people working in each field, and the realist tradition has encouraged that work to proceed at middle range, with theory refined as evidence builds up [29]. The programme this paper belongs to is an attempt to do that for one domain: digital dementia risk-reduction education for midlife adults. The extension proposed here contributes to it in five ways.

The most obvious is that it names a mechanism. Pawson and Tilley describe mechanisms as people's reasoning in response to resources, but the logic does not say what that reasoning is in any particular case. Here it is emotional appraisal, defined in four parts and anchored in appraisal theory, with three recognisable responses. Closely related, the configurations include ones in which a resource backfires. Realist evaluations tend to dwell on what works, yet designers often most need to know how a resource goes wrong.

Two further contributions are more technical. Realist researchers often find it hard to separate context from mechanism, and the split between stable disposition (context) and in-the-moment appraisal (mechanism) is one way of drawing that line. The avoidance loop brings in time, since the outcome of one mechanism can change the conditions in which the next resource is received. Finally, the extension is fitted onto an existing programme theory [1,6] and does not stand alone, which is how middle-range theory is meant to accumulate.

All of these are extensions of application and specification. None alters the underlying logic of Pawson and Tilley, and I do not claim that it does. Whether they are worth having depends on what testing shows.

9.2. Contribution to Understanding Dementia-Related Behaviour Change

Most digital dementia education is judged on whether knowledge improves. That is a reasonable first measure, but it leaves open why knowledge gains so often fail to translate into action. The extension offers one candidate explanation that is neither simply a knowledge deficit nor a motivation deficit: some people may respond to the information itself in ways that reduce engagement or weaken their sense of control.

Trust may also form part of this process. People may be more willing to engage with dementia prevention information when they regard the source as credible and trustworthy, but trust in the source does not necessarily mean that a person feels ready or able to act on the information provided. Conversely, uncertainty about the source, the evidence or the motives behind a message may affect how that information is interpreted. In realist terms, trust can therefore be understood as one contextual condition that may shape how an educational resource is received and what mechanisms it activates.

Existing work often treats dementia-related fear as something to measure or address after it has taken hold. The extension instead considers the possibility that the educational encounter itself may contribute to either reducing or intensifying emotional responses. This reframes disengagement from simply being a failure of the user to a potentially understandable response to how information is encountered and interpreted, and one that may be anticipated in intervention design.

It also helps explain heterogeneity. If the same resource produces approach in one context and avoidance in another, average effects in a trial may conceal the patterns that are most important for understanding how and why an intervention works. The proposed extension therefore complements models such as COM-B [27],

by making an emotional pathway into behavioural readiness more explicit and potentially testable. It also maintains a specific focus on midlife, when multiple potentially modifiable dementia risk factors become increasingly relevant to prevention.

9.3. Contribution to the Health Science Literature

The paper contributes to several areas of health science by specifying how emotional responses may operate within the delivery and interpretation of digital dementia risk-reduction education. For the evaluation of complex interventions, it provides a worked example of how an affective process can be specified as a mechanism within a realist programme theory, complementing established approaches that emphasise the interaction between context, mechanisms and outcomes [30].

The contribution is not a new theory of emotion or fear, but the application and specification of emotional appraisal within a context-dependent account of how digital dementia education may produce different responses. In health communication, the framework connects established fear-appeal and information-avoidance literatures to a specific dementia education pathway, while incorporating perceived controllability, fatalism and stigma as potential components of the appraisal process.

The framework also extends the health-literacy perspective by asking not only whether people can access, understand and use health information, but under what emotional conditions they remain willing to engage with it [31]. This has implications for equity because prevention messages that imply individual responsibility without adequately recognising social and material constraints may contribute to stigma, disengagement or reduced trust, particularly among people whose circumstances limit their capacity to undertake recommended changes. In dementia prevention, the framework therefore adds a proposed affective mechanism to a translation problem that has commonly been considered in cognitive, behavioural and structural terms. It offers a possible explanation for why the availability and personal relevance of prevention information may not be sufficient to produce behavioural readiness, and why the same educational resource may generate engagement in one context but avoidance in another.

The potential relevance extends beyond dementia, although this paper does not test such transferability. Other areas of health communication involving conditions associated with fear, stigma or perceived personal threat may present similar questions about when information promotes engagement and when it contributes to withdrawal. The broader contribution is therefore a testable proposition: that specifying emotional appraisal as a mechanism within realist programme theory may help health researchers explain variation in how people respond to preventive information, rather than treating engagement or disengagement as uniform responses to the same educational resource.

9.4. Practical Significance and What Comes Next

For designers and commissioners, the practical message is that

evaluating digital dementia education only by uptake and knowledge gain may miss the people who turn away. For researchers, the priorities are to validate measures of the four appraisals, to test the propositions in midlife samples, to compare across cultural and social contexts, and to examine whether designs informed by the extension reduce avoidance without compromising accuracy.

Evidence that appraisal adds nothing beyond existing constructs, or that avoidance is better explained by something else, would count against the extension and is worth looking for.

10. Limitations

This paper is conceptual, and its propositions are untested. The four appraisals overlap with one another and with existing constructs, and the line between disposition, which stays a moderator, and appraisal, which is a mechanism, may be hard to hold in practice and in measurement. The framework draws partly on my own earlier work, which is largely conceptual too, so independent testing matters all the more. The evidence on fear of dementia comes mostly from particular cohorts and cultures, and responses may differ elsewhere. Fear and avoidance are also not always harmful: moderate concern can motivate action, and short-term avoidance can be an understandable way of coping, so the framework should not be read as pathologising emotion. Finally, the claim to novelty rests on a limited search. I looked for realist evaluations of dementia education, for fear-appeal models applied to dementia information, and for work on fear and avoidance of dementia, and found no realist programme theory that specifies an affective mechanism in digital dementia risk-reduction education. The search was not systematic, and not finding something does not show that it does not exist.

In my view, the biggest weakness of this work is that the proposed emotional appraisal mechanism remains conceptual and has not yet been tested empirically. The next important step is therefore to examine whether the proposed configurations can be identified in practice and whether they help explain differences in engagement and behavioural readiness within the proposed PhD study. This provides an important opportunity to move from a theoretically plausible explanation to an empirically examined realist account of how digital dementia education may contribute to, or inhibit, behaviour change.

11. Conclusion

Making dementia information available, and even relevant, may not be enough. How people feel about what they learn may decide whether they keep engaging. By specifying emotional appraisal as a mechanism within a realist framework, and by including the configurations in which education backfires, this paper extends the programme of work begun in [1] and applies the logic of [2] to a problem for which this form of application appears to have received limited attention. The next step is to test whether the proposed pathway holds in midlife adults, and to do so with close attention to psychological safety and equity.

Ultimately, this matter because identifying dementia risk factors is

only the beginning; if prevention information can be understood, accepted and translated into meaningful action, the proposed framework may help explain how knowledge can move towards sustained changes in behaviour and, potentially, meaningful reduction in modifiable dementia risk.

Declarations

Use of generative AI: This paper was led and developed by the author. Generative AI (OpenAI ChatGPT, GPT-5.5; Anthropic Claude Sonnet 5.5) was used to assist with some of the visual design and refinement of figures. All conceptual content, interpretation, and editing decisions were undertaken by 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.

Data Availability

No new datasets were generated or analysed for this conceptual article.

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Appendix 1: Publications Constitute A Coherent Programme of Conceptual Scholarship

The accompanying poster presents the body of scholarly work by the author that underpins a new proposed PhD study. It comprises ten outputs (Carey, 2026a-j), nine peer-reviewed publications and one educational infographic, followed by five subsequent outputs (2026k-o) that extend the programme in directions directly relevant to the proposed doctoral research.

The outputs were developed as a connected sequence rather than as isolated papers. They move from a critique of information-transfer models of dementia education, through the development of the Dementia Prevention Literacy Translation Framework (DPLTF) and a realist-informed approach to evaluating digital dementia education, to an empirical mixed-methods study and further theoretical extensions, including the concept of Midlife Preventive Capacity. Taken together, they establish the conceptual, theoretical and methodological foundation for the proposed study, and the rationale for examining how digital dementia education produces outcomes across contexts in midlife populations.

The poster, titled “Publications constitute a coherent programme of conceptual scholarship”, is available on Figshare at: <https://doi.org/10.6084/m9.figshare.34088349.v1>

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