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**Citation:** Jones, D., Drewery, R., Windle, K., McCabe, R., Dooley, J., Slocombe, F. & Fonseca de Paiva, A. (2025). Exploring modifiable lifestyle risk-talk in mild cognitive impairment diagnosis consultations: a conversation analytic approach. *Patient Education and Counseling*, 140, 109285. doi: 10.1016/j.pec.2025.109285

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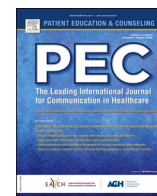
**Link to published version:** <https://doi.org/10.1016/j.pec.2025.109285>

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## Exploring modifiable lifestyle risk-talk in mild cognitive impairment diagnosis consultations: a conversation analytic approach

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## ARTICLE INFO

## Keywords:

Risk  
 Communication  
 Mild Cognitive Impairment (MCI)  
 Dementia  
 Prevention  
 Conversation Analysis  
 United Kingdom

## ABSTRACT

**Objectives:** Approximately 20 % of the UK population aged  $\geq 65$  have Mild Cognitive Impairment (MCI), with 1 in 10 progressing to dementia. Fourteen modifiable risk factors, encompassing: less education, hearing loss, high LDL cholesterol, depression, traumatic brain injury, physical inactivity, diabetes, smoking, hypertension, obesity, excessive alcohol consumption, social isolation, air pollution, and visual loss account for around 45 % of worldwide dementias. There is growing consensus that interventions targeting risk behaviours may prevent or delay dementia and reduce the likelihood that MCI will progress to dementia. Healthcare professionals, especially in memory assessment services, play a crucial role in communicating dementia risk. This study explores the placement, form, and function of discussions about modifiable lifestyle dementia risks during consultations in which individuals are being diagnosed with MCI.

**Methods:** The data were 43 MCI diagnostic feedback consultations, video-recorded in nine UK-based memory assessment services from 2014 to 2015. All data are British English. Conversation analytic methods were used to identify recurrent interactional practices related to lifestyle risk-talk.

**Results:** Clinicians lead risk-talk discussions throughout the consultations. Three activities of risk-talk were identified: (1) risk identification - clinicians elicit the nature of patient's risk behaviors; (2) risk categorisation - informing patients about the risks of dementia; and (3) risk management - clinicians recommend strategies for dementia risk reduction. Clinicians tailor these discussions to each patient, focusing on their specific risk factors, or provide generic advice in the absence of identifiable risks.

**Conclusions:** This study broadens the understanding of risk-talk activities and how they are delivered interactionally. It demonstrates how healthcare professionals skillfully integrate risk-talk throughout consultations while managing the inherent uncertainty surrounding health risks. It highlights the moral, interactional, and social delicacy of these exchanges.

**Practical implications:** Tailored messaging about lifestyle risks and modifications can be delicately incorporated throughout healthcare consultations, providing strategies for dementia risk reduction.

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Received 6 June 2025; Accepted 25 July 2025

Available online 30 July 2025

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## 1. Introduction

Preventive health agendas are promoted through healthcare structures, policies and regulations [1–3], public health campaigns and the media [4], and through the practice of health communication. While there is a plethora of guidance for clinical professionals on communicating health risks [5,6], scant research exists exploring the actual social processes of risk-talk within healthcare interactions.

Conversation analytic (CA) research has predominantly explored health promotion through the lens of lifestyle *advice-giving*, targeting diverse health behaviours e.g., weight management [7,8], physical inactivity [9], smoking cessation [10,11], suicide prevention [12], child protection helpline calls [13], HIV/AIDS counselling sessions [14,15] and mothers' wellness checks [16]. These studies focused on the design of advice-giving [17] and how advice is built across sequences [16]. Responses to advice has also been focal [10,13,14,16]. Bergen [9] examined physicians' advice about physical inactivity, suggesting that advice focused on identified health issues, rooted in the physicians knowledge, is likely to be accepted. 'Problem-based' advice also led to patient acceptance in HIV/AIDS counselling [18]. However, in the case of smoking cessation, Pilnick and Coleman [10] found that when general practitioners (GPs) link smoking to the patient's problems, resistance is more likely. There is a morality in advice-giving [10] and its "judgemental possibilities" [16]. While one's agency or ability to self-regulate health behaviours may be determined by socioeconomic status and culture, among other things [19–21], one's inability or unwillingness to self-regulate risky behaviours can be perceived as blameworthy [22]. Hence, there is inherent delicacy in advice-giving within healthcare discourse.

The concept, calculation, and communication of risk have recently been discussed within the CA literature. Hayes et al., [23] explored how hospital staff profile "at-risk" patients on paediatric wards, using terms like 'no concerns', 'watcher' and 'acute concerns'. Similarly, Tremblett et al., [24] explored COVID-19 risk communication demonstrating that clinicians noted people's personal risk 'level' (e.g. "your risks are low"), which was often accounted for (e.g., "that's because of your age"). Other CA research on risk has focused on management of risk and the role of expertise [25]. Linell et al., [26] noted sociopragmatic variation in risk-talk across risk-implicative healthcare contexts, suggesting that *risk talk* is a collaborative communicative project initiated and led by professionals. The analysis of risk-talk in clinical encounters requires further attention.

Risk and risk communication are emerging concepts in the field of dementia. While dementia incidence continues to rise [27], it is noted that 14 modifiable risk factors contribute to about 45% of global cases: less education, hearing loss, high LDL cholesterol, depression, traumatic brain injury, physical inactivity, diabetes, smoking, hypertension, obesity, excessive alcohol consumption, social isolation, air pollution, and vision loss [28]. Interventions targeted to reduce or modify risk behaviours may prevent or delay dementia [28]. While policy mandates that risk reduction activities should take place in healthcare [1,29–31], evidence suggests this is seldom happening [32].

Risk reduction advice can be especially relevant for patients with Mild Cognitive Impairment (MCI) [33,34]. MCI is a condition characterised by cognitive decline that is greater than expected for a person's age but not severe enough to interfere significantly with daily life. Between 5–15% of people with MCI develop dementia each year [35]. The definitions of MCI, its diagnostic utility, types, and its conversion rates to

### Extract 1 (188)

---

01 DOC: **.hh And I gather you like your fdrink,**  
 02 (0.4)  
 03 PAT: .hh Yea:h, 'fraid s[o, ]  
 04 DOC: [huh] huh [huh huh huh] huh  
 05 COM: [HMMM[MMMmm ]  
 06 PAT: [huh hu]  
 07 COM: Too much Davi[d. ]  
 08 PAT: [Hmm]  
 09 DOC: [huh] hu >I'm afraid I'm a doctor and  
 10 I have to put you on the< sp[o:t. ]  
 11 PAT: [Yes:.]Yep.=  
 12 DOC: =So what I'm gonna ask you is precisely how much  
 13 drink, >and it's< often helpful if you're honest  
 14 because you know it's just to get to the bottom of  
 15 thi:ngs.  
 16 PAT: Yea::h:. I- I >suppose< ((patient nodding)) a good  
 17 couple of tots a night of rum.

---

### Extract 2 (215)

---

01 DOC: **tch .hh uhm And you: used to smoke.**  
 02 (0.4)  
 03 PAT: Tch Yes[:. Uh ]  
 04 DOC: [Was it] a heavy:, (0.2) °you know°  
 05 PAT: I wouldn't say I was a heavy smoker.

---

## Extract 3 (188) (continued from Extract 1)

01 DOC: But I think the overarching issue:, (0.4) I have to say,  
 02 Mr Thompson, ((moves chair forward and leans towards  
 03 the patient shuffling papers in her hand))  
 04 PAT: Uhm hm  
 05 DOC: This:: ((hands patient a leaflet)) is: alcohol.  
 06 PAT: ((turns head towards COM and rolls his eyes))  
 07 DOC: And I've printed this leaflet off:. And I- and I think,  
 08 if you have a look at it it will: (0.2) describe to you:  
 09 how: it is linked with (0.8) all: aspects of the body's  
 10 and the brain's functioning.= **And alcohol is: (0.2)**  
 11 **quite a big risk factor for developing dementia.**  
 12 (0.2)  
 13 DOC: And: and you've got a lot of time to act on it.

## Extract 4 (92)

01 DOC: Uhm:: (.) tch ↑the other thing is you smoke:,  
 02 PAT: °Yeah.° (nodding)  
 03 DOC: A:nd **smoking does: increa:se (0.2) the risk of blood**  
 04 **circulation problems:,**  
 05 **(0.4)**  
 06 DOC: .h Uh[m: an]d stroke, and: uhm:: heart problems:,  
 07 PAT: [Okay.]

## Extract 5 (190)

01 DOC: If you are unlucky, (0.6) mild cognitive impairment  
 02 ca:n progress: to:, dementia.=And we know: that  
 03 **about one in seven people, [ (0.2) or] thereabouts**  
 04 COM: [ (cough) ]  
 05 DOC: **will go on (0.2) and develop a demen[tia. ]**  
 06 PAT: [ ((nods)) ]  
 07 PAT: Ri:ght.=  
 08 DOC: =Six out of seven people won't.  
 09 PAT: °Right°.

dementia have been widely debated [36]. However, the presence of modifiable risk factors can compound the likelihood of MCI progressing to dementia [37], e.g., people with both diabetes and MCI have an 8.8% greater risk of developing dementia compared to those without diabetes [38]. Improving cardiovascular risk factors may help reduce the risk of MCI progressing to vascular dementia [39].

This study explores the placement, form, and function of discussions about modifiable lifestyle dementia risks during consultations in which individuals are being diagnosed with MCI, considering wider possibilities of what constitutes risk-talk.

## 2. Methods

### 2.1. Data

This study involves a secondary analysis of video-recorded diagnostic feedback meetings from the Shared Decision Making in Mild to Moderate Dementia (ShareD) study (PB-PG-1111-26063) conducted in nine UK memory clinics (2014–2015). ShareD explored shared decision-making when people received a diagnosis of dementia. All patients underwent full cognitive assessment with the diagnosis discussed by a

multidisciplinary team. Psychiatrists or geriatricians fed back the diagnosis to the patient at a diagnostic feedback meeting. For more details on methodology, see Dooley et al. [40–42] and McCabe [43]. The Camden and Islington Research Ethics Committee approved the study (13/LO/1309).

The ShareD data (215 recordings) were screened for patients diagnosed with MCI; 47 were identified (four were excluded based on missing data). The final dataset for this study comprised 43 consultations, involving patients receiving a diagnosis of MCI, their companions, and 11 clinicians.

## 2.2. Analytic approach

Data were analysed using Conversation Analysis (CA), a micro-analytic inductive approach to describing and understanding interaction [44]. CA is extensively used in research in healthcare settings [45–47] to identify patterns of interaction that inform practice [48,49], assessment [50,51], and diagnosis [40,52–54]. Data were transcribed verbatim using conventions of CA [55, Appendix A] and searched for discussions of modifiable lifestyle dementia risks [28]. Episodes in which risk factors were mentioned formed the basis of an initial

Extract 6 (129)

---

01 DOC: .hhh There's a cha:nce uhm that that could  
 02 progress: to: (0.2) something called vascular  
 03 dementia.=  
 04 PAT: °Right. Ye[ah.°]  
 05 DOC: [Bu-] but there's also: a chance that it  
 06 won't. .hh And uhm tch it- it's roughly: (.) <one:  
 07 in te:n people> with (.) mi:ld cognitive impairment  
 08 .h go on to develop a:: uhm vascular dementia, .hh  
 09 uhm you know if you look at them: a- you know a  
 10 year down the li:ne. .hh So ni:ne out of te:n  
 11 •n't

---

Extract 7 (188) (later in the consultation shown in Extracts 1 and 3)

---

01 DOC: **So in a nutshell what I'm saying is if: anything you**  
 02 **have to take away from today: it is stop drinking.**  
 03 (0.2)  
 04 PAT: tch I come in here I was happy,  
 05 COM: Huh [huh] huh huh [huh hu]h huh [huh huh huh]  
 06 DOC: [HMM] [HMMM ]  
 07 PAT: [hu[h huh I'm] g]oing  
 08 DOC: [huh huh huh]  
 09 PAT: out, ((patient gestures with his hand pulling his  
 10 face/head down and frowns)) huh huh huh hu  
 11 DOC: **.hh I think (0.2) in preparation for the next twenty**  
 12 **years of li:fe (if you're in) good health. I think**  
 13 **that would be one thi:ng, you kn[ow, and ] >I**  
 14 PAT: [Cut down.]  
 15 DOC: wouldn't be d[oing you any favours if I were-<]  
 16 COM: [ ↑No:::, Give up:, ]  
 17 PAT: ↑Give up,  
 18 COM: Yes:.

---

## Extract 8 (92) (continued from Extract 4)

01 DOC: A:nd smoking does: increa:se (0.2) the risk of blood  
 02 circulation problems:,  
 03 (0.4)  
 04 DOC: .h Uh[m: an]d stroke, and: uhm:: heart problems:,  
 05 PAT: [Okay.]  
 06 DOC: .hh Uhm:: (0.4) the best thing you can do:, (0.4)  
 07 is stop smoking.  
 08 PAT: Yes.  
 09 DOC: UH::M:: (0.4) tch there's lots of support ↑that you can  
 10 get from your GP surgery:,  
 11 PAT: Mmm=  
 12 DOC: =Uhm: to help stop smoking,=And what we know: is that  
 13 .h if someone wants to try and stop cigarettes if they  
 14 have support they're much more likely to be successful,  
 15 PAT: ((nods)) Mmm  
 16 DOC: Uh::m:: (0.2) how d'you feel abou:t (0.4) stopping smoking,  
 17 (0.6)  
 18 PAT: Er:: I had thought about it, but (0.6) no, it's about as  
 19 far as it's gone.  
 20 DOC: Ye[ah. Yeah.]h Well think about it again.  
 21 PAT: [ ( ) ]  
 22 PAT: Yeah. ((nods))  
 23 DOC: Okay:, So:: it's probably the single thing (0.4) that  
 24 you can do:: that will have the biggest (0.2) uh::  
 25 impact on your health.=  
 26 PAT: =Yea[h.]  
 27 DOC: [Ok]ay,.hh a::nd uhm:: it's >it's probably< THE::  
 28 thing that's most likely: (0.4) to:: make a difference in  
 29 terms of uhm preventing further strokes.  
 30 PAT: Yeah.

### 3.1. Risk identification: eliciting patient risk behaviours

Risk identification is an interactional activity in which clinicians elicit information about a patient's risk factors, probing the extent of their engagement in risky health behaviors. This occurs early in the consultation, preceding the diagnosis delivery. Clinicians draw on already-known lifestyle-related dementia risk factors established during assessment, such as smoking or alcohol consumption. By 'spotlighting' these risks at the outset, clinicians position them as relevant for discussion, encouraging patient involvement in a shared discussion about the level of those risks [57]. In foregrounding risk factors within a consultation where the primary agenda is to provide a diagnosis, clinicians create interactional contingencies that facilitate the recommendation of strategies to reduce risks later in the consultation (3.3). Risk identification is commonly constructed through known-answer question formats, displaying clinician knowledge of the patient's risk behaviours. These questions require the patient to confirm and elaborate on the extent of those behaviors. This is illustrated in Extracts 1 and 2.

The clinician identifies the patient's risky behaviour (line 01) – drinking alcohol. In using “I gather”, the clinician draws on prior knowledge of the patient's drinking habits [58], requiring the patient to confirm that he does drink, perhaps excessively (implied by “like your drink”). After some delay (note the gap, line 02, and delay, line 03) the patient confirms that he likes his drink, “yeah” (line 03). He proceeds to add a marker of possible regret, “afraid so” (line 03), thereby orienting to the behaviour as potentially problematic. To *like* to drink could be perceived as transgressive, adding an element of moral delicacy [59].

In Extract 1 there is a delicate balance between the seriousness of the

alcohol related health-risks and playfulness in the clinician's framing [60,61]. The clinician smiles at the end of the initial question, which is audible in her vocalisation. The patient does not initially reciprocate the smile and instead aligns with the seriousness of the issue, confirming his drinking. Delicacy is managed by the clinician continuing to laugh (line 04); however, this is curtailed following the companion's interjection, “Hm” (line 05). The companion elevates the patient's drinking habits as “too much David” (line 07). This third-party perspective shifts the clinician's approach, refocusing on the serious task of determining the precise amount of alcohol the patient consumes (line 12). The clinician draws on her authority as “a doctor” to guide her questioning (line 09) and suggests that the patient be “honest” (line 13). The patient discloses a somewhat imprecise amount, “a good couple of tots a night of rum” (lines 16–17).

Extract 2 is another example involving a different patient and clinician.

Like Extract 1 the initial turn is *and*-prefaced (line 01) which indicates an ongoing course of action [62]. This sequence involves the clinician eliciting the patient's perspective regarding a series of already-known symptoms and risk factors. Again, the declarative design of the question, “you used to smoke”, indicates the clinician's prior knowledge [58] and requires patient confirmation. After some delay (line 02 – gap, line 03 –delay; also present in Extract 1), the patient confirms that he used to smoke “Yes:”. Like Extract 1, the clinician pursues more detail regarding the severity, “was it a heavy” (line 04), which the patient minimises (line 05). In both examples, the patients' delayed responses signal hesitancy, and, combined with the laughter observed in Extract 1, display delicacy.

### 3.2. Risk categorisation: informing patients about the risks of dementia

Risk categorisation involves the description of the estimation or probability of risk. Clinicians engage in activities of “risk profiling”, “analysing what, in the current state of knowledge and current conditions, is the distribution of risks” [63, p.119]. Interactionally clinicians inform patients about the risks associated with the behaviour they are engaged in and/or the likelihood of a future dementia diagnosis. This is designed using two forms; 1, the risk behaviour is named and a link is asserted between that behaviour and the future possibilities of dementia, e.g., “Alcohol is a risk factor for dementia”. This verbal form of categorisation is prompted by re-asserting the risk behaviour identified earlier in the consultation. 2, risk is categorised using probabilities and communicated numerically, e.g., “roughly one in ten people with MCI go on to develop vascular dementia”. In both forms, the certainty of medical information underpinning risk categorisation is managed through the framing of informings, using hedging and other strategies to present medical knowledge with varying levels of certainty. Risk categorisation follows risk identification and occurs after the diagnosis is disclosed.

Extract 3 (follows Extract 1) is an example of risk categorisation in which the behaviour is categorised as risky e.g., “alcohol is quite a big risk factor for developing dementia” (Extract 3, lines 10–11). This does not characterise the person directly as being at risk *per se* but instead attributes the risk to the behaviour in which they are engaged. The patient is informed of the consequence of engaging in that behaviour; developing dementia.

Alcohol is being identified as *the problem* - “the overarching issue” (lines 01–03, 05) and the risks associated with the behaviour are categorised as a “risk factor for developing dementia”. However, the formulation of the risk scale is mitigated by the phrase “quite a big”, which serves to hedge the certainty. The patient’s visible and marked eye roll (line 06) is a recognisable practice for displaying dissent, an embodied protest at this topic of risk-talk [64].

Extract 4 is another example, enacted by a different clinician, in which the risks associated with smoking are categorised.

Here the risk factor “smoking” is identified, then immediately categorised, “does increase the risk” (line 03). While dementia is not explicitly labelled as the possible outcome, the clinician details “circulation problems and stroke and heart problems” (known causes of vascular dementia). These risks are attributed to the risky behaviour of smoking, in which the patient is engaged. The information is received by the patient, “okay” (line 07).

The other form of risk categorisation is a numerical expression of risk, typically proposed by probabilities to predict a dementia outcome. As risk categorisation is underpinned by epidemiological evidence, calculated in terms of probabilities at a population level, it is unsurprising to see risk communicated in numerical terms. Examples of numerical risk categorisation can be seen in Extract 5 and 6, which are from different clinicians.

Before the numerical categorisation of risk (Extract 5, lines 03–05; Extract 6, lines 06–08), the clinicians start with verbal framing, informing the patients that MCI “can/could progress”. Risk categorisation appears immediately after the patient has received a diagnosis of MCI (the second “that” in Extract 6, line 01 is referring to the MCI diagnosis delivered earlier). Framing these informings with “if you are unlucky” (Extract 5, line 01), and “there’s a chance” (Extract 6, line 01), projects a low probability or uncertain risk (“unlucky” posits ‘luck’ rather than a medical cause of a negative outcome). In Extract 5 the clinician continues to cite numerical scientific evidence of risk as part of their medical and knowledge base (demonstrating both deontic and epistemic authority) [58], using “we know that about one in seven people, or thereabouts will go on and develop dementia” (line 02–05). Collins et al., [65] suggest that numerical expressions are more precise and unambiguous. However, the clinicians frame the numerical categorisations using “about” and “or thereabouts” (Extract 5, line 03) and “it’s roughly” (Extract 6, line 06) marking them as approximations. These hedges soften the imposition of medical authority while

#### Extract 9 (129) (continuation of Extract 6)

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```

01 DOC: The things that help to prevent that happening:, to
02 prevent MCI:: (0.2) becoming a vascular dementia, .hh
03 are:: (0.2) staying as (0.2) you know: mentally active as
04 you ca:n.=Stay[ing as soc[ially active (0.2) ] as you
05 DOC: [((turns gaze towards COM))]
06 COM: [ ((nod head)) ]
07 DOC: ca:n.=So, >seeing people and talking to them and
08 interacting with other people< see:ms to be very
09 beneficial in this: (0.2) r-rega:rd.
10 (0.4)
11 DOC: Uhm an'staying as: as physically active as you ca:n.=So
12 trying to: uhm you know do:: keep- keep your body
13 m[o:ving .hh t]hat all helps:.
14 PAT: [((Nods head))]
```

---

#### Extract 10 (126)

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```

01 DOC: .hh The things that help at this stage >in terms
02 of protecting your memory whatever the cause are:,
03 (0.2) all the things that you are already doing.= So,
04 stay:ing: (0.4) physically active, >you know< mentally
05 active, SOCially active.=So getting out
```

---

advancing the clinician's claim as an expert. Pilnick & Zayts [66] showed how clinicians use imprecise and noncommittal formulations to ensure numerical formulations of risk are not taken as definitive and function to reassure patients.

The reassuring nature of the interactions in this study also appears when the clinicians reformulate the numerical probability more positively; "Six out of seven people won't" (Extract 5, line 08) and "So nine out of ten won't" (Extract 6, lines 10–11). The different clinicians also present different probabilities for the outcome of dementia. This may partly reflect discrepancies in the underpinning epidemiological evidence and its calculation at a population level, which present challenges for clinicians in interpreting and communicating the inherent uncertainties associated with these risks for these individuals.

### 3.3. Risk management: recommending strategies for dementia risk reduction

During risk management clinicians communicate dementia risk reduction strategies. This occurs after diagnosis and before consultation closing. Risk management appears to take two forms; 1, when a specific risk is identified early, strategies for risk management specifically target this risk. For example, when smoking is identified as a risk factor, clinicians orient to stopping smoking as a strategy for risk management. 2, when no specific risk behaviours are identified, risk management is expressed in generic terms and idiomatic expressions e.g., "Use it or lose it" and "What's good for your heart is good for your brain". Generic management strategies are formed as a three-part list [67] recommending patients stay 'physically active, socially active and mentally active'.

Extract 7 (follows Extract 1 and 3) is an example of a targeted form of risk management. The patient's excessive alcohol consumption has been identified as a risky behaviour (Extract 1) and categorised as "quite a big risk factor for developing dementia" (Extract 3). Before this extract the clinician has advised the patient to completely stop drinking (although this was discussed as not specifically preventive): "...if you were to stop, I think we are likely to see some improvement there". The clinician returns to reiterate the strategy to stop drinking, now in the context of prevention and promoting future "good health".

The clinician launches risk management, presenting it as a summary of the prior advice (not shown in the extract), initially signalled by "So" (line 01; [68]). This connects the current agenda to the prior advice talk; "in a nutshell what I'm saying is" (line 01). The clinician proceeds with the *one* strategy the patient *must* do – "stop drinking" (line 02). The clinician continues with a preventive-focused account, "in preparation for the next twenty years of life in good health" (lines 11–12). While this is not explicitly detailing dementia risk reduction, it is framed as a preventive strategy to avoid future poor health outcomes.

Extract 8 (follows Extract 4) shows similar patterns but with the strategy to "stop smoking" (line 07). The patient has a vascular cause of MCI resulting from "mini strokes". The clinician has earlier stated that repeated strokes can lead to dementia and in this Extract (8) states that the strategy to stop smoking is probably *the* best thing for "preventing further strokes" (line 29).

Like Extract 7, the clinician in Extract 8 emphasises that modifying health behaviors (specifically quitting smoking) will have an impact on the patient's health, referring to it as the "biggest impact on your health" (lines 24–25). In both cases the recommended strategies are framed as centrally important for risk reduction – "If *anything* you have to take away" (Extract 7, lines 01–02), "*one* thing" (Extract 7, line 13), "*the best* thing" (Extract 8, line 06), and "THE:: thing" (Extract 8, 27–28). The strategies themselves are presented in absolute terms and grounded in medical authority, "stop drinking" (Extract 7, line 02), "stop smoking" (Extract 8, line 07). In Extract 8 the clinician directs the patient to further support (lines 09–10), highlighting the utility of that support for behaviour change (lines 12–14).

In the cases where a prominent risk factor for dementia has not been

identified, a more generic form of risk management is used (Extracts 9 and 10).

Extract 9 follows Extract 6 where the clinician has categorised the probability of MCI developing into vascular dementia as a "roughly one-in-ten" chance. The clinician commences the management strategy, identifying "the things that help prevent that happening" (line 01). The clinician halts the production of the strategy to make explicit what "that happening" here refers to; "that" being "to prevent MCI becoming vascular dementia" (line 02). This provides clarity on the preventive character of the advice to follow. The recommendation involves *maintaining* good levels of mental, social, and physical activity.

In both Extracts 9 and 10 (below) the framing of the recommendations demonstrates a level of tailoring. In Extract 9, "as you can" (lines 03–04, 04–07, 11) places the strategies within the domain of the patients' abilities. "Staying" (Extract 9, lines 03, 04, 11 and Extract 10, line 04) acknowledges the patients existing commitment to healthy behaviours and has a face-saving quality, reassuring the patient that they are already doing what they need to do to mitigate the risks of dementia or maintain good health. In Extract 10 this is explicitly stated, "all the things that you are already doing" (line 03).

In both examples the risk management strategies are formed as three-part lists [67], recommending the patient stays mentally, socially, and physically active. Three part-lists are a persuasive sequential and interactional resource, used here to summarise the general class of risk management strategies in the absence of a specific and identified risk factor. In both extracts, the clinicians unpack the generic advice, providing examples of lifestyle modifications that the patients can implement – "getting out" (Extract 10, line 05), "so seeing people and talking to them..." (Extract 9, line 07–08), and "trying to keep your body moving" (Extract 9, lines 12–13). Using "trying to" and "keep" provides tailoring to the patient's capabilities, encouraging their ongoing commitment to a healthy lifestyle while providing actionable steps to support preventive health.

## 4. Discussion and conclusion

### 4.1. Discussion

This study identifies that dementia-risk talk is clinician-led and occurs across sequences during MCI diagnostic feedback consultations. Three activities of risk-talk were identified. First, clinicians elicit information about already-known risks early in the consultation, to elicit the extent of those risks. Collins and Street [69] demonstrated how clinicians 'frame' the problem by defining the nature of the risk, early in the consultation. Adams [70, p.311] describes this as "eliciting the nature of the risk" through devices such as *fishing*. Heritage and Sefi [16, p.389] showed that Health Visitors (HV) would first make an enquiry to first-time mothers that "serves to topicalize the issue for which advice is subsequently developed". In this study clinicians *identify* individual risks early to establish contingencies for future risk management.

Raising issues related to the patient's risky behaviours could be hearable as blameworthy, making such discussions socially and interactionally delicate. To navigate this, clinicians use mitigating language and laughter [60]. Linell et al. [26] discuss risk-talk as part of a communicative dilemma, imbued with health anxieties and face work. Despite the potential for discomfort, discussing risks early helps frame risk behaviours that require preventive action.

After diagnosing MCI, clinicians further *categorise* dementia risk, using both verbal descriptions and numerical probabilities. Verbal expressions of risk can be imprecise, causing misinterpretation [71,72] and leading patients to overestimate risk [73]. NICE (2021) [5] guidance recommends using numerical formulations for clarity. However, clinicians often verbally frame these in uncertain terms, e.g., "roughly" and "about", mitigating their accuracy and presenting the possibility of "chance" and "luck". There is a duel here between the medical evidence and authority presented in clinicians' numerical formulation of risk, and

uncertainty inherent within their verbal framing. This tension may arise from the complexities or inconsistencies of epidemiological evidence, where risk is calculated on a population level; translating that data to individuals in clinical communication remains challenging. Clinicians may use imprecise and noncommittal formulations of uncertainty to reassure patients.

*Risk management* involves clinicians recommending strategies to reduce dementia risks, through targeted advice or generic recommendations. This aspect of risk-talk resembles CA research related to advice-giving as discussed in the introduction [7–18]. Advice framed as addressing a ‘problem’ may imply blame, which can provoke resistance [10,16]. Clinicians face similar challenges in designing effective strategies for dementia risk management. While risk communication guidelines suggest that risk management should be individually tailored and involve shared decision-making [5,74], the latter was largely absent in this study’s data. There was evidence that clinicians provide tailored risk-talk throughout the consultation, identifying individual risks early and targeting specific behaviours during risk management. Generic advice was tailored to acknowledge patients’ ongoing commitment to healthy lifestyle behaviours, providing more actionable steps for supporting possible preventive health conditions.

Communicating dementia risk is “challenging, because of the current lack of evidence on what to tell on an individual level (i.e., the actual risk), and on how to optimally communicate about risk in a way that maximises the desired impact of this information” [74, p.9]. Visser et al. [74] advocate for an evidence-based protocol for dementia risk communication, proposing systematic evaluations of risk-talk strategies to determine their impact on patient outcomes. Research is planned to analyse patients’ acceptance or resistance to risk management strategies, as well as resulting behaviour change, to fill this gap. While prior CA research has illustrated the within-interaction differences communication can make (e.g., patient resistance of advice), Albury et al.’s [7] work demonstrates the impact communication can have on actual behaviour change. Albury et al. [7] found that when GPs framed weight loss advice positively, it resulted in notable weight loss outcomes compared to a neutral approach. Enhancing dementia risk communication has the potential to lead to behaviour changes which could reduce dementia risk.

#### 4.2. Conclusion

This study enhances understandings of modifiable lifestyle risk-talk

## Appendix A

### Transcription conventions

[overlap]	Brackets:	Onset and offset of overlapping talk.
=	<u>Equals Sign:</u>	Utterances are latched or ran together, with no gap of silence.
-	<u>Hyphen:</u>	Preceding sound is cut off
↑word↓	<u>Up/Down arrows:</u>	Indicate pitch fluctuations up or down.
(0.0)	<u>Silence:</u>	Silence measured in seconds and tenths of seconds.
(.)	<u>Parentheses with a period:</u>	A micropause of less than 0.2 s:
:	<u>Colon(s):</u>	Preceding sound is extended or stretched; the more the longer.
.	<u>Period:</u>	Falling or terminal intonation.
,	<u>Comma:</u>	Continuing or slightly rising intonation.
?	<u>Question mark:</u>	Rising intonation.
£	<u>Pound sign:</u>	Smile voice
<u>underline</u>	<u>Underlining:</u>	Increased volume relative to surrounding talk.
CAPITAL	<u>Capitals</u>	Elevated volume
°soft°	<u>Degree signs:</u>	Talk with decreased volume relative to surrounding talk.
>fast<	<u>Less-than signs:</u>	Talk with increased pace relative to surrounding talk.
<slow>	<u>Greater-than signs:</u>	Talk with decreased pace relative to surrounding talk.
.h	<u>Periods preceding h’s:</u>	Inbreaths; the more the longer.
h	<u>H’s:</u>	Outbreaths (sometimes indicating laughter); the more the longer.

(continued on next page)

practices in memory clinic consultations when patients are diagnosed with MCI. It demonstrates how healthcare professionals lead discussions on risk, integrating risk-talk throughout consultations, while managing the uncertainties and complexities with health risks.

#### 4.3. Practice implications

CA insights provide healthcare professionals with guidance on discussing modifiable lifestyle dementia risks. This study emphasises the importance of tailored communication to address individual health behaviours, managing uncertainty, and encouraging preventive health decisions.

#### Funding

The research was supported by the University of Bradford, SURE funding scheme (Ref: DA512).

#### CRediT authorship contribution statement

**Jemima Dooley:** Resources, Data curation, Writing – review & editing. **Felicity Slocombe:** Writing – review & editing. **Andreia Fonseca de Paiva:** Conceptualization, Writing – review & editing, Project administration. **Rachael Drewery:** Formal analysis. **Karen Windle:** Supervision, Writing – review & editing. **Rose McCabe:** Resources, Data curation, Writing – review & editing. **Danielle Jones:** Investigation, Writing – original draft, Funding acquisition, Supervision, Formal analysis, Project administration, Conceptualization, Methodology, Writing – review & editing.

#### Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

#### Acknowledgements

We thank all the patients, companions and healthcare professionals who allowed us to film the consultations, as well as the ShareD project team for sharing these data. We thank Clare Jackson for her early comments on the analysis in this paper.

(continued)

[overlap]	Brackets:	Onset and offset of overlapping talk.
hah/heh (that)/(hat) ((Cough)) <b>Bold</b>	<u>Laugh token:</u> <u>Filled single parentheses:</u> <u>Filled double parentheses:</u> <u>Bold text:</u>	Relative open or closed position of laughter. Transcriptionist doubt about talk. Alternative hearings. Event/sound not easily transcribed. Non-verbal behaviour. Highlights the talk of analytic interest

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