Patient Education and Counseling 140 (2025) 109285

Contents lists available at ScienceDirect

Patient Education and Counseling

journal homepage: www.journals.elsevier.com/patient-education-and-counseling

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

Danielle Jones [a,*,1], Rachael Drewery [b,2], Karen Windle [c,3], Rose McCabe [d,4], Jemima Dooley [e,5], Felicity Slocombe [a,6], Andreia Fonseca de Paiva [f,7]

[a] Centre for Applied Dementia Studies, University of Bradford, Bradford, UK
[b] Nuffield Department of Primary Care, University of Oxford, Oxford, UK
[c] School of Nursing and Paramedic Science, University of Ulster, Northern Ireland, UK
[d] City University of London, London, UK
[e] University of Exeter, Exeter, UK
[f] School of Health Sciences, University of Surrey, Surrey, UK

ARTICLE INFO

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

ABSTRACT

Objectives: Approximately 20 % of the UK population aged ≥ 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.

* Corresponding author.
E-mail addresses: d.k.jones1@bradford.ac.uk (D. Jones), rachael.drewery@phc.ox.ac.uk (R. Drewery), K.Windle@ulster.ac.uk (K. Windle), rose.mccabe@city.ac.uk (R. McCabe), J.M.B.Dooley2@exeter.ac.uk (J. Dooley), f.slocombe@bradford.ac.uk (F. Slocombe), a.fonsecadepaiva@surrey.ac.uk (A. Fonseca de Paiva).
[1] https://orcid.org/0000-0002-2875-781X
[2] https://orcid.org/0000-0002-3352-9301
[3] https://orcid.org/0000-0002-2136-735X
[4] https://orcid.org/0000-0003-2041-7383
[5] https://orcid.org/0000-0003-3418-8112
[6] https://orcid.org/0000-0001-9602-336X
[7] https://orcid.org/0000-0002-2273-5433

https://doi.org/10.1016/j.pec.2025.109285
Received 6 June 2025; Accepted 25 July 2025
Available online 30 July 2025

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 £drink,
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)

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

Extract 4 (92)

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

Extract 5 (190)

DOC: If you are unlucky, (0.6) mild cognitive impairment
ca:n progress: to:, dementia.=And we know: that
about one in seven people, [(0.2) or] thereabouts
COM: [(cough)]
DOC: **will go on (0.2) and develop a demen[tia.]**
PAT: [((nods))]
PAT: Ri:ght.=
DOC: =Six out of seven people won't.
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 collection. Sub-collections were created according to the placement of risk-talk within the consultation. The analysis of the form and function of risk-talk was conducted. No demographic data was sought as they did not contribute to the analysis. Discussions related to medication were excluded, as the project focused on lifestyle factors. Data extracts presented in this paper highlight broader patterns observed across the dataset. Patients are labeled as PAT, psychiatrists or geriatricians as DOC, and companions as COM. Names are pseudonyms.

3. Results

Risk-talk is a recurring feature in MCI diagnostic feedback meetings (n = 42/43). We identified three activities of risk-talk; 1) risk identification - clinicians elicit the nature of the patient's risk behaviors (3.1); 2) risk categorisation – clinicians inform patients about the risks of dementia (3.2); and 3) risk management - clinicians recommend strategies for dementia risk reduction (3.3). These terms are used in risk communication frameworks [56]. Our analysis examines how these activities are achieved interactionally, demonstrating how they unfold in discrete sequential environments yet remain topically and interactionally linked throughout the consultations.

Extract 6 (129)

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

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

```
DOC:  So in a nutshell what I'm saying is if: anything you
      have to take away from today: it is stop drinking.
      (0.2)
PAT:  tch I come in here I was happy,
COM:  Huh [huh] huh huh [huh hu]h huh [huh huh huh]
DOC:      [HMM]         [HMMM  ]
PAT:                                  [hu[h huh I'm] g]oing
DOC:                                     [huh huh  huh]
PAT:  out, ((patient gestures with his hand pulling his
      face/head down and frowns)) huh huh huh hu
DOC:  .hh I think (0.2) in preparation for the next twenty
      years of li:fe (if you're in) good health. I think
      that would be one thi:ng, you kn[ow, and  ] >I
PAT:                                  [Cut down.]
DOC:  wouldn't be d[oing you any favours if I were-<]
COM:               [  ↑No:::,      Give up:,        ]
PAT:  ↑Give up,
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, "Hmmmmm" (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 receipted 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)

```
01  DOC:  The thi:ngs 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  g[aze  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)

```
01  DOC:  .hh The things that help at this sta:ge >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 *any*thing 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 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.

Appendix A

Transcription conventions

[overlap]	Brackets:	Onset and offset of overlapping talk.
=	Equals Sign:	Utterances are latched or ran together, with no gap of silence.
-	Hyphen:	Preceding sound is cut off
↑word↓	Up/Down arrows:	Indicate pitch fluctuations up or down.
(0.0)	Silence:	Silence measured in seconds and tenths of seconds.
(.)	Parentheses with a period:	A micropause of less than 0:2 s:
:	Colon(s):	Preceding sound is extended or stretched; the more the longer.
.	Period:	Falling or terminal intonation.
,	Comma:	Continuing or slightly rising intonation.
?	Question mark:	Rising intonation.
£	Pound sign:	Smile voice
underline	Underlining:	Increased volume relative to surrounding talk.
CAPITAL	Capitals	Elevated volume
°soft°	Degree signs:	Talk with decreased volume relative to surrounding talk.
>fast<	Less-than signs:	Talk with increased pace relative to surrounding talk.
<slow>	Greater-than signs:	Talk with decreased pace relative to surrounding talk.
.h	Periods preceding h's:	Inbreaths; the more the longer.
h	H's:	Outbreaths (sometimes indicating laughter); the more the longer.

(*continued on next page*)

(*continued*)

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

References

[1] NHS. NHS. 2019. NHS Long Term Plan. Available from: ⟨https://www.longtermplan.nhs.uk/wp-content/uploads/2019/08/nhs-long-term-plan-version-1.2.pdf⟩.

[2] Department of health and social care. Department of Health and Social Care. 2018. Prevention is better than cure: Our vision to help you live well for longer. Available from: ⟨https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/753688/Prevention_is_better_than_cure_5-11.pdf⟩.

[3] Public health england. Health matters: Prevention - a life course approach. 2019. Available from: ⟨https://www.gov.uk/government/publications/health-matters-life-course-approach-to-prevention/health-matters-prevention-a-life-course-approach⟩.

[4] Zinn JO. Health and illness as drivers of risk language in the news media – a case study of the times. Health Risk Soc 2020;22(7–8):437–55.

[5] NICE. Shared decision making, NICE guideline [NG197]. 2021. Available from: ⟨https://www.nice.org.uk/guidance/ng197/chapter/recommendations#communicating-risks-benefits-and-consequences⟩.

[6] GMC. Good medical practice, Domain 2: Patients, partnership and communication. 2024. Available from: ⟨https://www.gmc-uk.org/professional-standards/the-professional-standards/good-medical-practice/domain-2-patients-partnership-and-communication⟩.

[7] Albury C, Webb H, Stokoe E, Ziebland S, Koshiaris C, Lee JJ, et al. Relationship between clinician language and the success of behavioral weight loss interventions. Ann Intern Med 2023;176(11):1437–47.

[8] Tremblett M, Webb H, Ziebland S, Stokoe E, Aveyard P, Albury C. The basis of patient resistance to opportunistic discussions about weight in primary care. Health Commun 2024;39(11):2333–45.

[9] Bergen C. The conditional legitimacy of behavior change advice in primary care. Soc Sci Med 2020;255:112985.

[10] Pilnick A, Coleman T. "I'll give up smoking when you get me better": patients' resistance to attempts to problematise smoking in general practice (GP) consultations. Soc Sci Med 2003;57(1):135–45.

[11] Wheat H, Barnes RK, Aveyard P, Stevenson F, Begh R. Brief opportunistic interventions by general practitioners to promote smoking cessation: a conversation analytic study. Soc Sci Med 2022;314:115463.

[12] Bergen C, McCabe R. Negative stance towards treatment in psychosocial assessments: the role of personalised recommendations in promoting acceptance. Soc Sci Med 2021;290:114082.

[13] Hepburn A, Potter J. Designing the recipient: managing advice resistance in institutional settings. Soc Psychol Q 2011;74(2):216–41.

[14] Silverman D, Perakyla A, Bor R. Discussing safer sex in HIV counselling: assessing three communication formats. AIDS Care 1992;4(1):69–82.

[15] Kinnell AMK, Maynard DW. The delivery and receipt of safer sex advice in pretest counseling session for HIV and AIDS. J Conte Ethnogr 1996;24(4):405–37.

[16] Heritage J., Sefi S. Dilemmas of advice: aspects of the delivery and reception of advice in interactions between health visitors and first-time mothers. talk at work: Interaction in institutional settings. 1992;359:417.

[17] Connabeer K. Lifestyle advice in UK primary care consultations: doctors' use of conditional forms of advice. Patient Educ Couns 2021;104(11):2706–15.

[18] Silverman D. Discourses of counselling: HIV counselling as social interaction. Sage Publications; 1996.

[19] Minkler M. Health promotion research: are we asking the right questions? Washington; 1985.

[20] Walsh S, Govia I, Wallace L, Richard E, Peters R, Anstey KJ, et al. A whole-population approach is required for dementia risk reduction. Lancet Healthy Longev 2022;3(1):e6–8.

[21] Wang AY, Hu HY, Ou YN, Wang ZT, Ma YH, Tan L, et al. Socioeconomic status and risks of cognitive impairment and dementia: a systematic review and meta-analysis of 39 prospective studies. J Prev Alzheimers Dis 2023;10(1):83–94.

[22] Crawford R. You are dangerous to your health: the ideology and politics of victim blaming. Int J Health Serv 1977;7(4):663–80.

[23] Hayes J, Lachman P, Edbrooke-Childs J, Stapley E, Wolpert M, Deighton J. Assessing risks to paediatric patients: conversation analysis of situation awareness in huddle meetings in england. Brit Med J Open 2019;9(5):e023437.

[24] Tremblett M, Webb H, Begh R, Barnes R, Lawrence W, Walmsely N, et al. A conversation analysis of personal COVID-19 risk communication in a global pandemic: presenter(s): charlotte albury, university of Oxford, United Kingdom. O. O.11.4 Patient Educ Couns 2023;109:114.

[25] Candlin CN, Candlin S. Discourse, expertise, and the management of risk in health care settings. Res Lang Soc Inter 2002 Apr 1;35(2):115–37.

[26] Linell P, Adelswärd V, Sachs L, Bredmar M, Lindstedt U. Expert talk in medical contexts: explicit and implicit orientation to risks. Res Lang Soc Inter 2002;35(2):195–218.

[27] Chen Y, Bandosz P, Stoye G, Liu Y, Wu Y, Lobanov-Rostovsky S, et al. Dementia incidence trend in england and wales, 2002–19, and projection for dementia burden to 2040: analysis of data from the English longitudinal study of ageing. Lancet Public Health 2023;8(11):e859–67.

[28] Livingston G, Huntley J, Liu KY, Costafreda SG, Selbæk G, Alladi S, et al. Dementia prevention, intervention, and care: 2024 report of the lancet standing commission. Lancet 2024;404(10452):572–628.

[29] World Health Organization. Communicating risk in public health emergencies: a WHO guideline for emergency risk communication (ERC) policy and practice. 2017 [cited 2024 Nov 15]. Available from: ⟨https://apps.who.int/iris/bitstream/handle/10665/259807/9789241550208-eng.pdf⟩.

[30] Frisoni G.B., Altomare D., Ribaldi F., Villain N., Brayne C., Mukadam N., et al. Dementia prevention in memory clinics: recommendations from the European task force for brain health services. The Lancet Regional Health – Europe. 2023 [cited 2024 Nov 15]. Available from: ⟨https://www.thelancet.com/journals/lanepe/article/PIIS2666-7762⟩(22)00272-1/fulltext?trk=organization_guest_main-feed-card_feed-article-content.

[31] ARUK ARU. What is mild cognitive impairment. 2023. Available from: ⟨https://www.alzheimersresearchuk.org/dementia-information/types-of-dementia/mild-cognitive-impairment/#:~:text=Every%20year%2C%20about%20one%20in,get%20worse%20or%20get%20better⟩.

[32] Jones D, Drewery R, Windle K, Humphrey S, Paiva AF de. Dementia prevention and the GP's role: a qualitative interview study. Brit J Gen Pr 2024;74(741):e242–9.

[33] Bailey C, Dooley J, McCabe R. How do they want to know?' doctors' perspectives on making and communicating a diagnosis of dementia. Dementia 2019;18(7–8):3004–22.

[34] Visser LNC, Pelt SAR, Kunneman M, Bouwman FH, Claus JJ, Kalisvaart KJ, et al. Communicating uncertainties when disclosing diagnostic test results for (Alzheimer's) dementia in the memory clinic: the ABIDE project. Health Expect 2020;23(1):52–62.

[35] Dunne RA, Aarsland D, O'Brien JT, Ballard C, Banerjee S, Fox NC, et al. Mild cognitive impairment: the manchester consensus. Age Ageing 2021;50(1):72–80.

[36] Visser PJ, Brodaty H. MCI is not a clinically useful concept. Int Psychogeriatr 2006;18(3):402–9.

[37] Cooper C, Sommerlad A, Lyketsos CG, Livingston G. Modifiable predictors of dementia in mild cognitive impairment: a systematic review and meta-analysis. AJP 2015;172(4):323–34.

[38] Ding X, Yin L, Zhang L, Zhang Y, Zha T, Zhang W, et al. Diabetes accelerates Alzheimer's disease progression in the first year post mild cognitive impairment diagnosis. Alzheimers Dement 2024;20(7):4583–93.

[39] Campbell NL, Unverzagt F, LaMantia MA, Khan BA, Boustani MA. Risk factors for the progression of mild cognitive impairment to dementia. Clin Geriatr Med 2013;29(4):873–93.

[40] Dooley J, Bass N, McCabe R. How do doctors deliver a diagnosis of dementia in memory clinics? Br J Psychiatry 2018;212(4):239–45.

[41] Dooley J, Bass N, Livingston G, McCabe R. Involving patients with dementia in decisions to initiate treatment: effect on patient acceptance, satisfaction and medication prescription. Br J Psychiatry 2019;214(4):213–7.

[42] Dooley J, Bailey C, Xanthopoulou P, Bass N, McCabe R. Communication and understanding of mild cognitive impairment diagnoses. Int J Geriatr Psychiatry 2020;35(6):662–70.

[43] McCabe R, Pavlickova H, Xanthopoulou P, Bass NJ, Livingston G, Dooley J. Patient and companion shared decision making and satisfaction with decisions about starting cholinesterase medication at dementia diagnosis. Age Ageing 2019;48(5):711–8.

[44] Sidnell J. Conversation analysis: an introduction. Wiley-Blackwell; 2010.

[45] Heritage J, Maynard DW. Communication in medical care: interaction between primary care physicians and patients. Cambridge University Press; 2006.

[46] Stivers T. Prescribing under pressure: parent-physician conversations and antibiotics. Oxford University Press; 2007.

[47] Robinson JD, Heritage J. Intervening with conversation analysis: the case of Medicine. Res Lang Soc Inter 2014;47(3):201–18.

[48] Heritage J, Robinson JD, Elliott MN, Beckett M, Wilkes M. Reducing Patients' unmet concerns in primary care: the difference one word can make. J Gen Intern Med 2007;22(10):1429–33.

[49] Wilkinson R. The interactional organization of aphasia naming testing. Clin Linguist Phon 2013;27(10–11):805–22.

[50] Heritage J, Stivers T. Online commentary in acute medical visits: a method of shaping patient expectations. Soc Sci Med 1999;49(11):1501–17.

[51] Reuber M, Monzoni C, Sharrack B, Plug L. Using interactional and linguistic analysis to distinguish between epileptic and psychogenic nonepileptic seizures: a prospective, blinded multirater study. Epilepsy Behav 2009;16(1):139–44.
[52] Heath C. The delivery and reception of diagnosis in the general-practice consultation (In: Talk at work: Interaction in institutional settings. P. Drew&J. Heritage). In: Drew P, Heritage J, editors. Talk at work: Interaction in institutional settings. Cambridge UK: Cambridge University Press; 1992. p. 235–67 (In: Talk at work: Interaction in institutional settings. P. Drew&J. Heritage).
[53] Peräkylä A. Authority and accountability: the delivery of diagnosis in primary health care. Soc Psychol Q 1998:301–20.
[54] Maynard DW. Delivering bad news in emergency care medicine. Acute Med Surg 2017;4(1):3–11.
[55] Jefferson G. Issues in the transcription of naturally-occurring talk: Caricature versus capturing pronunciational particulars. Tilburg Univ., Department of Language and Linguistics; 1983.
[56] Covello VT, Sandman PM. Risk communication: evolution and revolutionbaltimore, MD (Johns Hopkins University Press). In: Wolbarst A, editor. Solutions to an Environment in Peri. Baltimore, MD: Johns Hopkins University Press; 2001. p. 164–78 (Johns Hopkins University Press).
[57] Moumjid N, Carrère MO, Charavel M, Brémond A. Clinical issues in shared decision-making applied to breast cancer. Health Expect 2003;6(3):222–7.
[58] Heritage J. Epistemics in action: action formation and territories of knowledge. Res Lang Soc Inter 2012;45(1):1–29.
[59] Goffman E. The presentation of self in everyday life (Bantam Doubleday Dell Publishing Group). Bantam Doubleday Dell Publishing Group; 1959.
[60] Holt E. Laughter at last: playfulness and laughter in interaction. J Pragmat 2016; 100:89–102.
[61] Drew P. Po-faced receipts of teases. Linguistics 1987;25(1):219–53.
[62] Heritage J, Sorjonen ML. Constituting and maintaining activities across sequences: and-prefacing as a feature of question design. Lang Soc 1994;23(1):1–29.
[63] Giddens A. Modernity and self-identity: self and society in the late modern age. Cambridge: Polity Press; 1991.
[64] Clift R. Embodiment in dissent: the eye roll as an interactional practice. Res Lang Soc Inter 2021;54(3):261–76.
[65] Collins RN, Mandel DR, MacLeod BA. Verbal and numeric probabilities differentially shape decisions. Think Reason 2024;30(1):235–57.
[66] Pilnick A, Zayts O. "It's just a Likelihood": uncertainty as topic and resource in conveying "Positive" results in an antenatal screening clinic. Symb Inter 2014;37 (2):187–208.
[67] Jefferson G. List construction as a task and resource. In: Psathas G, editor. Interactional competence. New York, NY: Irvington Publishers; 1991. p. 63–92.
[68] Bolden GB. Implementing incipient actions: the discourse marker 'so' in English conversation. J Pragmat 2009;41(5):974–98.
[69] Collins DL, Street RL. A dialogic model of conversations about risk: coordinating perceptions and achieving quality decisions in cancer care. Soc Sci Med 2009;68 (8):1506–12.
[70] Adams T. The social construction of risk by community psychiatric nurses and family carers for people with dementia. Health Risk Soc 2001;3(3):307–19.
[71] Nakao M. Numbers are better than words. Ame J Med 1983;74:1061–5.
[72] Brun W, Teigen KH. Verbal probabilities: ambiguous, context-dependent, or both? Organ Behav Hum Decis Process 1988;41(3):390–404.
[73] Büchter RB, Fechtelpeter D, Knelangen M, Ehrlich M, Waltering A. Words or numbers? communicating risk of adverse effects in written consumer health information: a systematic review and meta-analysis. BMC Med Inf Decis Mak 2014; 14(1):76.
[74] Visser LNC, Minguillon C, Sánchez-Benavides G, Abramowicz M, Altomare D, Fauria K, et al. Dementia risk communication. a user manual for brain health Services—part 3 of 6. Alz Res Ther 2021;13(1):170.