

Topic Guide

Thank you for meeting with me today as part of the XX interviews.

We are implementing a hearing support programme with staff and residents of [Site 1 name] and [Site 2 name] later this year. These interviews are part of the planning process to make sure we understand your challenges and deliver something practical and useful according to staff feedback.

There are no right or wrong answers to any of the questions, so please just say what you really think. You can skip over questions if you like, or answer in as much or as little detail as you like. We will remove your name and other personal information from the interview transcript to protect your identity.

Please let me know if you would like to take a break or stop the interview at any point.

We will be recording the interview so that we have an accurate record of what was said today. Are you happy to start the recording now?

We are trying to understand what staff already do, and what helps you do things well, plus we'd like to know what you don't do, and why. This will give us a good idea of what makes it easier for you to provide hearing support, and what makes it harder.

Behaviour #1 has a focus on using communication tactics with residents with hearing loss. By that we mean:

- Gain the residents attention before speaking
- Speak face-to-face with the resident
- Speak clearer, nearer, slower

Take a look at this list. To what extent do you do these things?

Great. Now just take another look at the list and let me know if there is anything else here you currently do?

	Possible prompts
Psychological capability <i>Firstly, I'm interested in exploring how your knowledge and skills influence your use of appropriate communication....</i>	• How do you check a resident has heard you and the message has gotten through? Talk me through an example. • Talk me through the different strategies you use when a resident doesn't hear you or mishears you. • Talk me through a time you might have forgotten to adapt your communication for a resident with hearing loss. How often would this happen? Why?
Physical opportunity <i>Next I'm interested in how your physical environment influences your use of appropriate communication ...</i>	• If someone is new to a caring role, are they trained to use appropriate communication with residents with hearing loss? Are there any formal procedures? Or is it something that is learned on-the job? • Do the residents at your facility have individualised care plans that document communication preferences? Do you know where to find them? • When you think about your usual routine during a work shift, is there any time during that routine when it's more difficult to use these appropriate communication strategies? Can you give me an example? • How might the physical set-up of residents' rooms impact communication and the provision of information to residents? • Do you have access to resources to support effective communication? Tell me more.
Social opportunity <i>Now let's turn our attention to the social environment of your workplace, referring to interpersonal influences and social and cultural norms ...</i>	• To what extent do you observe your manager and other staff adapting their communication with residents? • How do residents react when you adapt your communication? • Tell us about any social or cultural norms in your workplace that influence your use of appropriate communication with residents.
Reflective motivation <i>We're now going to focus on your attitudes and beliefs about using appropriate communication....</i>	• How does it impact residents when you adapt your communication appropriately? Are there any benefits for staff? • Are there any downsides or disadvantages of adapting your communication with residents in this way?
Automatic motivation <i>Lastly, we're interested in how using appropriate communication makes you feel</i>	• How does it make you feel when a client doesn't understand you and you need to modify your communication? • Do you feel you are in the habit of adapting your communication for residents with hearing loss?
	• Are there any other factors that we haven't covered?

Table S2. Communication tactics prompts

Behaviour #2 is about making small changes to residents' environments to improve hearing.

By that we mean:

Requesting permission to mute the TV or radio before talking to residents in their room

Muting the TV or radio during mealtimes.

Lets talk about requesting permission to mute the TV or radio before talking to a resident in their room first. Do you do this?

Always? Often? Any particular times when you do not do this?

How about muting TV and radio noise near the dining room during mealtimes?

Do you need to do anything different if a resident had dementia in addition to hearing loss?

	Possible prompts
Psychological capability <i>Firstly, I'm interested in exploring how your knowledge and skills influence whether you turn off the TV and radio</i>	• Talk me through your understanding of how background noise can impact communication if you have hearing loss. • How do you go about having the conversation with residents about turning off the TV or radio before carrying out any tasks? • How often, if ever, do you forget to turn off the TV or radio at the resident's bedside. Why?
Physical opportunity <i>Next I'm interested in how your physical environment influences whether you turn off the TV or radio ...</i>	• Are there any clinical procedures that are written down which tell you when to turn off the TV or radio? How did you access this information? • Are there any aspects of the dining room or resident bedroom that presents a physical challenge to turning things off? How so? <i>For example, is there ever a problem turning things off because you can't find a remote or similar?</i>
Social opportunity <i>Now let's turn our attention to the social environment in your workplace, referring to interpersonal influences and social and cultural norms ...</i>	• How do your colleagues react when you turn off the TV or radio during mealtimes? And how do the residents react? • To what extent is it standard practice to have the TV or radio on or off during mealtimes? • How do the residents react when you turn off the TV or radio before having a conversation in their room? How do you respond?
Reflective motivation <i>We're now going to focus on your attitudes and beliefs about turning off TV and radio</i>	• What are the advantages of turning off TV and radio at bedside? • What are the disadvantages? • What are the advantages of turning off TV and radio near dining room at mealtimes? • What are the disadvantages?
Automatic motivation <i>Lastly, we're interested in how turning off TV and radio make you feel</i>	• To what extent is it routine practice for you to turn off the TV or radio at residents' bedsoles before talking to them? • Does turning off the TV at bedside to have a conversation with a resident ever give you any particular positive or negative feelings? • Are there any positive or negative feelings around turning off the TV or music during mealtimes?

	• Are there any other factors that we haven't covered?
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Table S2. Noise reduction prompts

Nearly finished!

Last question - Do you want us to send you a summary of the research results at a later date?

Thanks so much for your time today. Feel free to get back in touch with me any time if you have any questions or concerns about what we discussed today.

Themes	Use of communication tactics	Quotes
Psychological Capability Skills	• Skilled in being able to adapt communication for people with hearing loss. • Skilled in being able to communicate with people with sensory loss and dementia. • Communication skills and knowledge acquired on the job	• P₁ “Just kind of a physical touch, at the back. Yeah. I'll be like, "Oh-". I'll just come around, and be like, "Hi." Then touch them, and not in an uncomfortable way, obviously. But just to make them know to let them know that I'm here. And close by.” • P₁₁ “I would speak slowly with people with dementia and be calm, not raising your voice.” • P₁₉ “, I experienced a lot, I've learned by myself a lot, so I like to give others the tips that I have learned by myself how to take care of the clients.”
Knowledge	• Knowledge of hearing status • Knowledge of communication strategies, including how to adapt based on individual needs • Knowledge of dementia and how it impacts communication for residents	• P₅ “Sometimes I have to repeat if I find that they need that because they might not have the hearing aid in. Often I don't know that information, so I have to gauge it as I see them.” • P₂ “No, I don't think they know some of them, no” • P₄ “I think more for residents with dementia, because that's a very tricky one. Because, you end up having a lot of behaviours, unnecessary behaviours, because we just don't know how to communicate with a lot of residents with dementia.”
Memory attention and decision processes	• Some staff forget to adapt their communication with residents.	• P₄ “sometimes you might just forget because you are overwhelmed. There's a lot of things going on, incidents, falls or something, and then you might not gain attention, might not do things properly because of being busy, short-staffed or any of those things, and then just go in. So, there's a few examples of a lot of times that some things like that do happen, when I don't follow through all that. And, you try to get face-to-face and you don't really pay attention to their response to see if they've heard you, you just sort of assume.
Environmental context and environmental stressors	• Group situations make communication more difficult. • Physical layout • Face masks and shields impact communication	• P₁ “Yeah. Face-to-face, sometimes you'll be busy with other residents, or whatever's happening in the environment, and you're kind of talking to this person, while looking on the other side, kind of thing. And they don't hear what you say, or whatever.”

Accessibility	• Accessibility of care plans	• P₂₁ “No. We don't see any restraint in rooms and we don't put anything which they don't like, so no.”
Resources	• Use of visual cues to facilitate communication (pictures, papers, iPads...) • Availability and need for communication training • Presence and accessibility of resources	• P₁₉ “Mask was difficult. Yes. This was difficult, actually.” • P₁₈ “Electronic, we have to go and look for it. A paper copy, it is more easier for the new staff also, if they doesn't have username or password or something. Like today I got agency, she doesn't have username to go and check, so paper base everyone can check • P₁₅ “Some of the clients, the toilet, there's a picture of the toilet. This is the toilet,” • P₂₃ “Some of them have got magnifying glasses. I think there's only about two or three.
	• Policies and procedures governing communication strategies.	• P₁ “I've not come across, maybe there is, I've just never seen one. Like a policy procedure thing.”
Time	• Too busy and not enough time to use communication strategies (due to complex needs of residents and staff shortages)	• P₄ “And then, sometimes you might just forget because you are overwhelmed. There's a lot of things going on, incidents, falls or something, and then you might not gain attention, might not do things properly because of being busy, short-staffed or any of those things, and then just go in. So, there's a few examples of a lot of times that some things like that do happen, when I don't follow through all that. And, you try to get face-to-face and you don't really pay attention to their response to see if they've heard you, you just sort of assume.”
	• Communication can be more difficult at different times of the day	• P₁₃ “I think in the morning. It's kind of rush hour. It's kind of like a busy timing. So, we just rush through the room and we just do the thing very fast and then that's the thing we forget about these things. Yeah. Sometimes this can happen.
Prompts and cues	• Wearing hearing aids and glasses remind staff to adapt communication. • Posters remind staff who has hearing loss	• P₁₁ “Sometimes they're not wearing hearing aids, so we don't know that they have hearing problems.” • P₁₄ “So if there is no visual, there's no sign there, I have to get the sign that this one is hearing or deaf or hearing impaired or with someone as well that can write, can see.”

Cultural norm

- Cultural considerations can impact communication

- P₂₀ “People without dementia, you have to be careful because culturally, some people culture, you cannot give them eye contact.”

Organizational culture Interpersonal skills

- Management recognizes that it’s important to adapt communication for people with hearing loss
- Residents may be non-verbal.
- Residents’ communication can vary during the day, depending on their cognition, mood and fatigue.

- P₆ “I would say managers and other allied health, sometimes yes. Sometimes the support staff.”
- P₁₅ “We’ve got plenty of clients. Some of our clients are not verbal at all..”
- P₅ “Depending on their level of cognition. Here at [Name 1 aged care] because they’re more cognitively aware and they’re more low care. At Facility B where they are much more... And the cognition is deteriorated a lot more they often don’t know who I am. So gaining their attention is not even something I need to do or can do often.”

Social support

- Seek specialist support to communicate effectively with residents.
- Staff modelling communication strategies.
- Extent of collaboration between staff
- Share information about communication preferences with colleagues.
- Seek and receive advice from family regarding how to communicate with resident,
- Staff do(not) read care plans.

- P₄ “We can talk to the OT, they can arrange a communication book where we can then write something like, “She went toilet,” or just write simple things, and they can respond by writing back.”
- P₂₂ “My role, well, in supporting, well, helping educate them, helping disseminate the knowledge around individuals, to all the staff.”
- P₂₁ “Yes. It’s a teamwork.”
- P₅ “Given in handover notes at the end of the day to the nursing staff, and they should then hand that out. That’s the process”
- P₁₆ “The family gives information”
- P₅ “So I don’t read everything in the iCare plan.”

Residents’ reactions

- Residents with dementia can be aggressive which makes it difficult to use communication strategies (e.g., getting close, making eye contact, touching to gain awareness)
- Residents do not want to use hearing devices to make communication easier.

- P₄ “So, in dementia, of course, I’m alert that anything can happen with different residents, so you’ll be alert, anything can just happen. But, they react differently. Some can be aggressive or they can shout, verbally aggressive or physically.”
- P₁₈ “Occasional, Not much. And some of the client doesn’t want

		<i>to put their hearing aid, they just take it out and sometimes we used to do sign language also, "Would you like to have a cup of tea? Cup of tea?", then they understand"</i>
	Residents' reactions prompt use of communication strategies	P₄ <i>"Their facial expression might show that they're a bit scared or confused."</i>
Beliefs about capabilities	Lack of confidence among staff in using communication strategies	P₅ <i>"So sometimes they need to be a bit more confident about that being clearer, nearer and slower. That's a bit of a behavioural thing on staff, and I think as I said, confidence as well."</i>
Beliefs about Consequences	- Feeling confident to adapt communication for people with dementia - Adapting communication improves staff-resident relationship. - Adapting communication improves residents' mood, compliance and decreases their defensive behaviour. - Adapting communication makes staff happier and their work easier.	- P₂₁ <i>"I feel more easier to communicate with dementia people."</i> - P₁₁ <i>"There are a few carers that are really good at communicating and they're able to help the residents more, and the residents actually tend to like them more because they're good at communicating."</i> - P₆ <i>"Well, I would say reducing those challenging behaviours. Probably more compliance"</i> - P₅ <i>"Well, I think it makes their workplace, their environment a lot better as well. Because if your residents are happy, it makes your workplace a lot happier too. This is the resident's home, and you are a part of it. If you can come and be able to do this and your residents, they enjoy seeing you. It's a win-win situation."</i>
	Getting closer to residents with dementia can have negative impacts on staff	
Goals	- Staff are trying to adapt their communication to assist the residents. - Staff are task orientated and therefore may not prioritize communication	- P₆ <i>"I don't do it all the time, but yeah, I do try."</i> - P₅ <i>"They do it every day with them, so they don't do this because of their familiarity and maybe overwork, familiarity and task orientation."</i>
Emotions	- Feeling uncomfortable when communication breaks down - Fear of behavioural response from residents when using communication	- P₁₃ <i>"I was a bit scared as well because he was like, "Why are you shouting at?" Even if someone have heard what the resident have said to me, I would have been in trouble because he was saying, "Why are you shouting at me?" And I said, "I wasn't shouting at you. I was just asking."</i> - P₁ <i>"Because in a demented residence, some of them, they don't</i>

Impulses: habit, routine Desires	strategies	
	Effective communication makes staff feel satisfied and comfortable	<i>P₁₆ "You feel more satisfied. Like if you explain to them that they understand if you're using the right technique, right way, and they understand you feel more satisfied. Yeah. You did it.. That make us happy. Make us satisfied."</i>
	Feels empathy towards residents	<i>P₃ "But I feel for them because I know it's not their fault. I know having troubles to communicate is not their fault."</i>
	Adapting communication is part of the daily routine	<i>P₁₁ "I think we do this every day, so yeah, we just get used to it."</i>
	Aged care staff want to communicate well to ensure quality of care	<i>P₃ "And I want them to get their needs met in the best way that we can provide for them."</i>

Table S3. Summary of themes and subthemes for use of communication tactics.

Themes	Reduce background noise	Quotes
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Skills	• Staff are using different strategies instead of muting TV. • Interpersonal skills	• P₅ “I remember trying to position myself to be in front of it.” • P₁₂ “Before I start I and resident had a conversation. Well, it is a feeling, my personal opinion, I feel it’s rude not to talk anything and just go straight away to someone’s room and then turn off TV or turn on TV. Just get consent from them to either turn on or turn off.” • P₅ “I might actually use it to talk to them about first. The royal wedding was on or something because it often leads to a lot of rapport building. So I might use it before I turn it off. • P₆ “I haven’t tried it myself, but most TVs do have something. I’d feel around give it a go.” • P₁₃ “so we just turn it on. Or else we can put the other residents in their room with there’s no noise or something like that” • P₁₈ “I think so, yeah, it’ll be too much. If we are talking and back or someone is talking, that resident feel irritation may be too much in his going on.” • P₂₂ “I can’t say I’ve seen any procedures that talk about it” • P₂₁ “We didn’t put the TV sound that loud because it will make them more agitated. The TV side is this one, and he’s sitting on the other opposite side, so it doesn’t conflict with each other.” • P₃ “I don’t know how to change the volume on the music”.
Knowledge	• Knowing how to establish rapport with residents before muting the TV • Staff know how to turn off the tv when the remote cannot be found • Staff know how to accommodate different preferences regarding having noise or not during mealtimes	
Memory attention and decision processes	• Staff vary in their level of awareness of how background noise impacts communication for people with hearing loss. • Awareness of policies and procedures governing turning of the TV at beside. • Noise can influence the behaviour of residents with dementia	
Behavioural regulation	• Knowing how to control music levels in communal areas • Some staff forget to turn off the TV in residents’ rooms	• P₁ “Probably. When I’m rushing, just get in there, talk, then come out. It does happen. I’m not going to lie. It does happen where you just go in, even with the TV on, talk, they respond or whatever, then go out.”
Environmental context and environmental	• Staff adapt their schedule to prevent interrupting residents • TV remote can be dirty	• P₂₁ “Sometimes they feel, I’m watching TV, this is my me time, so why you are here? If it’s a matter of tablets, sometimes P clients can refuse, “I’m watching TV, so I don’t want to take tablets now.” We can’t re-approach them again and again, we need to give them some time. Okay, fine.... For it we can take time, give them some time, and later we can approach” • P₆ “And the ones that I have touched haven’t been any grottier than other things that are around, so I haven’t stressed about it.”

stressors

	• No physical challenge in resident's room • No physical challenge in dining room • Most residents with dementia do not have a TV in their rooms. • Regulations influence the capacity for staff to mute or turn down music in communal areas	• P₁₇ “No. It has the remote” • P₁₈ “There's not really” • P₁₈ “Almost 80% are dementia here. So, I don't know. They don't have TV in the room. A few of them they can communicate like normal, they got TV, like radio, TV in their room, otherwise no” • P₂₂ “The second one I'm all for, but we've got these restraints from the commission and from accreditation and from even [Aged care name]’s governance people that are coming around.” • P₁₃ “There is a music system in the dining as well. There's two phones. We'll be connected to the kind of sound pops and we have to play some music, the old movies, the old... I mean the songs.” • P₁₁ “No physical challenges to turn off TV in residents rooms • P₅ “I couldn't find the remote control, and eventually I just had to talk over the top” • P₂₃ “It varies from site to site, definitely. Just further to what you said, it's not policy. It is obviously somebody has made that decision, which is two people that don't have the authority to make that decision, and not going to say anything further about that.” • P₁₆ “We discuss always. “Oh, I'm going to turn the TV off because it's mealtime.” We share things.” • P₂₁ “We had to sometimes put the music on because sometimes they get very agitated and so we need to calm them first. We need to do the medication before dinner so that they will be little settled while they're having their meal, and sometimes for that reason we are putting the music on.” • P₁₈ “It depends on the resident. Some they like to have lunch or dinner while watching TV, they doesn't want to off it. And some they say, “No, off it.”, and some resident they like loud music and some slow music, so we have to make a balance.” • P₂₃ “Why can't we have that choice of what's appropriate and what's not? Who's going to make that decision and who's going to say that it's okay?” • P₄ “Because, most of our residents here, where I usually work,
Accessibility	• Staff having access to noise sources in communal area • TV is not out of reach to turn it off when the remote is missing • Can be hard to find TV remote in residents' rooms	
Organizational culture	• Mixed messaging regarding whether to mute music or TV in communal areas	
Interpersonal skills	• Staff respond positively to music or TV being muted or turned down in communal areas during mealtimes • Staff turn the TV, music back on if they notice the residents get agitated • The decision to mute the TV or music during mealtime is dependent on residents' preferences	
Social support	• Staff sense of autonomy to turn music or TV off	
Residents’	• Residents react differently when asked to mute the TV in their rooms	

reactions

- Residents react differently when asked to mute the TV in communal areas

Beliefs about Consequences

- Background noise makes conversation difficult
- Varying beliefs about the impact of noise on social interaction in communal areas

- Background noise hinders residents' ability to understand

- Background noise helps to drown out loud voices

- Reducing background noise improves residents' carer communication at bedside

- Distraction, and inability to hear
- Helps residents and staff hear each other clearly
- Helps staff to perform clinical tasks

Goals

- Staff are task oriented and may forget to turn down or off the music and TV

Emotions

- Staff can experience negative feelings when turning off the TV (upset, intrusive.)

they are cognitive and they actually initiate that before I even ask.....Most of them, really."

- P₅ "Yes, I have. There are some residents that get quite angry if you turn the TV off and they want to watch something. Some residents, they've got a routine and they watch a certain channel at a certain time. And if you don't help them put that on or if it gets turned off, they will let you know."
- P₄ "So, if the music is loud, there's no communication there."
- P₂₂ "Not so much, no. There's not a lot of social communication. There's a little bit. But it's sporadic and opportunistic. It's generally not something where they'll sit down and everyone will start talking to each other at the dining table."
- P₁₃ "Failure to understand what they are saying, and then I think that's it."
- P₆ "I don't think it happens very often, and even if there's no background music, a lot of our residents are loud too, so maybe sometimes the music is put on to drown out some of the loud residents as well."
- P₂₁ "It's easy to talk to them. I can explain clearly. Because if they can't hear me properly, they would not understand what I'm trying to say, they will get more annoyed by me. It's better to turn it off."
- P₁₁ "Like distraction and them not being able to hear us."
- P₂₂ "I know I always do it, basically because I can't hear them if I don't. So it's a mutual benefit."
- P₃ "So the advantages are definitely because you're trying to get them to move from one task to another, and you don't want to overload them with all the different stuff that's going on. So I think it's an advantage to turn it off in that sense."
- P₂₂ "They're task focused. They're not always situationally aware."
- P₅ "I obviously feel a little bit intrusive, because I'm in their room as well, but because I ask, it's okay. If they say yes and as I said they always do, so that's okay"

Impulses: habit,
routine

- Some staff routinely mute or turn off the TV at communal area
- Some staff routinely mute or turn off the TV at bedside

- P₆ *“So I’ll change it to that on occasion. But yeah, I don’t honestly do too much with the TV”*
- P₁₆ *“Yeah. I always does that. If you don’t mind, can I put your volume down for your TV or radio?”*

Table S3. Summary of themes and subthemes for reducing background noise.