

Providing information on mental well-being

Citation: Bennett, R. J., Nickbakht, M., Saulsman, L., Pachana, N. A., Eikelboom, R. H., Bucks, R. S., & Meyer, C. J. (2023). Providing information on mental well-being during audiological consultations: exploring barriers and facilitators using the COM-B model. *International Journal of Audiology*, 1-9.

Providing information on mental well-being during audiological consultations: exploring barriers and facilitators using the COM-B model

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ABSTRACT

Objective: To identify the barriers and facilitators of hearing healthcare clinicians (HHC) providing information to audiology consumers on (i) the mental health impacts of hearing loss, and (ii) management options for improving mental well-being.

Design: A qualitative study using semi-structured individual and group interviews. Both the interview guide and the deductive process of data analysis were based on the COM-B model (Capabilities, Opportunities and Motivations required for Behaviour change).

Study sample: Fifteen HHCs with between 2 and 25 years of clinical experience (mean 9.3).

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Results: Psychological Capability barriers included lack of knowledge relating to mental health signs and symptoms, management options available, referral processes, and resources/tools to assist discussion of options. Social opportunity barriers included clients' lack of openness to receive mental health-related information from their HHC. Automatic motivation factors included feeling uncomfortable and helpless when discussing mental health. Reflective motivation factors included clinician's limiting beliefs concerning their role and responsibilities regarding provision of mental health support, and doubts about whether mental health services are truly beneficial for clients with hearing loss.

Conclusion: Application of the COM-B model for behaviour change identified factors that need to be addressed to increase the provision of mental health information in the audiology setting.

Keywords: Mental health; well-being; behaviour change; information

1. INTRODUCTION

Hearing loss not only affects a person's ability to hear, but also to communicate, which can result in emotional distress, such as feelings of frustration, embarrassment, and loneliness (Vas et al., 2017; Heffernan et al., 2016). This emotional distress can negatively impact mental well-being and, consequently, adults with hearing loss have an increased risk of anxiety and depression (Contrera et al, 2017; Lawrence et al., 2020). Hearing loss is most often managed with the use of hearing devices. However, while hearing devices improve hearing sensitivity (Ferguson et al., 2017), the emotional and mental well-being impacts of hearing loss often persist even with their use (Lawrence et al., 2020; Weinstein et al., 2016). Hearing healthcare services are commonly described as being dominated by an acute illness model of care, providing intervention targeting the physical hearing loss but not the secondary effects on mental well-being. There is a call to shift service delivery towards a chronic disease model of care, which considers individuals' lived experiences of their disability, and thus incorporates mental well-being support into audiological service programs (Saunders et al., 2021; Bennett et al, 2020a). Given that hearing healthcare clinicians (HHCs) currently discuss the impact of hearing loss on communication within audiological consultations, there is potential for HHCs to expand their service offerings to

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incorporate symptom identification and mental well-being support into routine care (Bennett et al., 2021a).

The “No wrong door” approach (South Western Sydney Primary Health Network) advocates for patients with mental well-being concerns to enter the healthcare system through any pathway to receive timely access to support. The “No wrong door” approach commits all health services to respond to patient needs through the provision of skills to support self-recovery, direction to mental health support services, or linkage and case co-ordination with appropriate specialists. Enlisting allied health professionals to assist with early detection and triage for mental well-being concerns has proven beneficial in school-based (Kuo et al., 2009; Vander Stoep et al., 2005), speech-pathology (Ryan et al., 2017), and child health nursing (Jones et al., 2012) programs. Bridging the gap between audiology and mental health support services by adopting the “No wrong door” approach has the potential to improve care pathways for adults with hearing loss. There is also evidence to suggest that addressing mental well-being needs may improve the outcome of audiological services. Interviews with adults with hearing loss and co-morbid mental health symptoms describe a bi-directional relationship between mental health symptoms and hearing loss, with the presence of hearing loss exacerbating mental health symptoms, and the presence of mental health symptoms negatively impacting on hearing loss help-seeking, use of hearing devices, and ability to cope with audiological rehabilitation (Laird et al., 2020). Furthermore, HHCs have indicated that knowledge of a client’s mental well-being status would enhance the way in which hearing services are provided through facilitating an improved understanding of a client’s needs, personalisation of care, promoting interdisciplinary care, and focussing on outcomes that address the client as a whole person (Bennett et al., 2020b). However, preliminary research shows that HHCs do not routinely provide mental well-being support within hearing

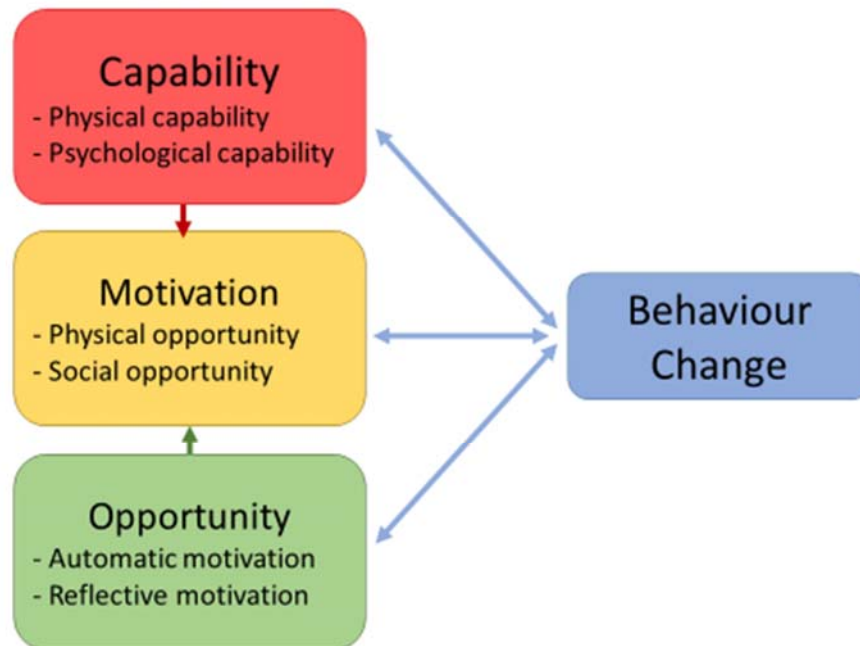
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rehabilitation services (Bennett et al., 2020a; Ekberg et al., 2014) with our early studies identifying some potential barriers, including lack of skill, lack of training, worry about getting ‘out of my depth’, and time / caseload pressures (Bennett et al., 2020a; Bennett et al., 2020b). However, until now, there has been no comprehensive study exploring the barriers and facilitators to provision of mental well-being support by HHCs.

We set out to develop an intervention to increase the frequency and quality of mental well-being support provided within all audiology consultations as HHCs should be receptive to detecting and addressing their client’s well-being needs during any and every appointment. The provision of mental well-being support is a clinical behaviour, and thus we set out to develop a behaviour change intervention. Frameworks designed to assist the development of behavioural interventions propose the use of phased evidence-based approaches, employing both qualitative and quantitative investigations, and engaging stakeholders at every step of the process (Campbell et al., 2007; Moore et al., 2015). To assist clinical researchers in the development of behaviour change interventions, a group of implementation researchers developed the Behaviour Change Wheel (Michie et al., 2014), an eight-step systematic process founded in psychological and organizational theory relevant to health behaviour change. At its core is the COM-B model of behaviour change (Michie et al., 2014). It recognises that barriers and facilitators of **B**ehaviour change may relate to **C**apability (e.g., skills, knowledge), **O**pportunity (e.g., social influences, physical environment), or **M**otivation (e.g., beliefs, intentions, emotional responses, habitual responses) (Figure 1). The COM-B model proposes that if a behaviour is not taking place, barriers in one or more of these areas need to be addressed. There is a growing body of work supporting use of the BCW and COM-B for designing and implementing hearing healthcare interventions (Barker et al., 2016; van Leeuwen et al., 2018; Ekberg et al., 2020; Maidment et al., 2020).

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Figure 1. COM-B model of behaviour change, a framework for identifying barriers and facilitates to health behaviour. Adapted from “The behaviour change wheel: A guide to designing interventions” by S. Michie et al, 2014, London: Silverback, p. 92. Copyright 2014 by Susan Michie, Lou Atkins and Robert West.



We employed the BCW process to develop an intervention to increase the frequency and quality of mental well-being support provided within audiology consultations. In March 2020, we conducted a series of workshops with consumers and community representatives to explore gaps in clinical practices, and potential research directions, for improving how mental well-being support is delivered within the audiology setting (Bennett, et al., 2021b).

Participants identified 37 behaviours related to the provision of mental well-being support.

The three behaviours voted by participants to be the most promising for a behavioural intervention included the clinician (i) *asking about*, (ii) *providing information on*, and (iii) *delivering therapeutic intervention for mental well-being within audiological service provision*.

Whilst all three target behaviours are important, this study focusses on the first two. Although evidence supports the role of HHCs in delivering therapeutic intervention for tinnitus distress (Landry et al., 2020), they describe uncertainty regarding how to deliver

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therapeutic intervention for mental well-being and query whether this is within their scope of practice (Bennett et al., 2021a). Given that there is much work needed to understand the potential role of the HHCs in first asking about and then providing information on mental well-being, before exploring how audiologists might go about providing mental well-being intervention we decided to focus on behaviours (i) and (ii) for this behaviour change project. In May 2020, we conducted a series of semi-structured individual interviews and focus groups with HHCs to explore the barriers and facilitators to behaviours (i) and (ii) within their normal work environment, per the BCW. Results pertaining to the behaviour *(i) asking about mental well-being* are reported in a separate report as the rationale for targeting this behaviour, the interview questions, the barriers and facilitators described by participants and thus the key take-away messages from the “ask” data differed substantially from those relating to the “information” data. This report provides a description of the results relating to *(ii) providing information on mental well-being within audiological service provision*.

2. MATERIALS AND METHODS

This research was shaped by a pragmatic paradigm, a worldview that focuses on “what works” rather than what might be considered absolutely and objectively “true” or “real” (Morgan et al., 2014); oriented toward solving practical problems in the “real world” (Creswell & Plano Clark, 2011). This qualitative study was conducted using semi-structured individual interviews and focus groups with HHCs, including both audiologists (university trained) and audiometrists (non-university trained). Data pertaining to *(i) asking about mental well-being* and *(ii) providing information on mental well-being within audiological service provision* were collected together across all sessions. However, only results relating to *(ii) providing information on mental well-being within audiological service provision* are provided within this report. Further, information provision has been further delineated into

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providing information about (i) *the mental well-being impacts of hearing loss*; and (ii) *management options for improving mental well-being*.

2.1 Materials

The interview guide (Supplementary Table 1) and the analysis structure were developed based on the COM-B model (Michie et al., 2014; Michie et al., 2008). The research team identified that all clinicians had the physical capability for providing information, so this component was not investigated.

2.2 Participants

Guidelines recommend that targeted health interventions are context-specific to increase the likelihood of successful implementation (Michie et al., 2014). Accordingly, we partnered with a single hearing services organisation to co-develop the intervention program and also to provide a clinical context for intervention implementation and testing. Thus, all participants in this study were recruited through a single hearing services organisation in Western Australia, employing 37 HHCs across 15 clinic locations. Inclusion criteria required participants to be over 18 years of age, employed as a clinician at our partner clinic, and providing audiological services to adults at least one day per week. Maximum variation sampling was used to ensure that our sample included at least two males and two females; two clinicians working with cochlear implant recipients and two working with hearing aid recipients; and two clinicians with fewer than 5 years of clinical experience and two with more than 10 years of clinical experience.

In total, 15 HHCs participated, ranging in age from 25 to 53 years (mean 35.2, SD 10.0); 13 females and two males. Participants had between 2 and 25 years of clinical experience (mean

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9.3, SD 7.6). Five participants worked primarily with cochlear implant recipients and ten with hearing aid recipients.

2.3 Procedure

Approval for this study was granted by the Human Research Ethics Office of The University of Western Australia (RA/4/20/5873).

Using the sample strategy described above, a random sample of clinicians at our partner clinic were identified by first generating a list of all clinical staff (with gender, area of speciality and years of clinical experience coded to their names), randomising the order of this list, and then selecting staff (potential participants) from the top of the list until all sampling parameters were met. These potential participants were invited to participate by email and were provided with an information sheet and consent form (100% consent rate). Eight interview sessions were conducted; six were conducted one-on-one, two of them with a group of two, and one with a group of five. Each participant attended only one session. The session with the group of five included the five clinicians working primarily with cochlear implant recipients and lasted for 1.5 hours. All other sessions were scheduled for one hour, with all sessions using the full hour with the exception of one interview that took 30 minutes.

All interviews were conducted by the first author (R.J.B.), a female clinical audiologist with experience in conducting qualitative research. The interviews were conducted via an online platform, Microsoft Teams, with which the participants were all familiar from their workplace. All sessions were video recorded enabling audio-transcription of the dialogue. We reflected after each of the interviews and revised the topic guide. The topics were not changed but the wording and order of the questions were amended to reflect the language and

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understanding of the participants. Changes were only made after the first three sessions and were minor in nature. For example, questions relating to beliefs about capabilities were moved to earlier in the questioning sequence and asked directly after questions relating to knowledge, as this seemed to flow better for participants. After the first 15 participant interviews were conducted, two members of the research team reviewed the transcribed data. As data saturation had occurred, in that no new information was obtained from the 14th and 15th participants, participant recruitment ended (Patton, 1990).

2.3.1 Data analysis. Audio recordings were transcribed by a professional service (with identifying information removed) and analysed using Microsoft Excel. A hybrid analysis approach was used wherein we first applied deductive analysis, a “top-down” approach applying existing theory to a data set, to categorise the interview data within one or more of the COM-B domains. Following this, an inductive approach, a “bottom-up” data-driven approach to identifying themes within a dataset, was used to group like text excerpts and identify themes within each domain (Atkins et al., 2017). A large proportion of the participants speculated potential solutions to the barriers they described. These “suggested solutions” do not fall under the COM-B framework as they do not describe current behaviours, and thus would have been discarded data. Given that that this qualitative study formed part of a larger study aiming to develop a clinical intervention to increase the frequency and quality of mental well-being support provided within audiology consultations, we opted to retain the data describing “suggested solutions” and code it as an additional category outside of the COM-B framework. Framework analysis (Gale et al., 2013) was used to analyse the transcripts using a matrix to reduce and explain the data. The matrix developed for this study included the three components of the COM-B model and their sub-components (Capability: Physical and Psychological; Opportunity: Social and Physical; and Motivation:

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Reflective and Automatic), as well as an additional category capturing the “suggested solutions” data. Three members of the research team conducted the analysis together to optimise rigour and trustworthiness. In round one, authors R.J.B. and M.N. independently coded the raw transcript excerpts, identifying text that represented barriers or facilitators to providing: information about emotional and mental well-being impacts of hearing loss; or management options for improving mental well-being. These excerpts were subsequently allocated to one or more categories within the matrix. In cases where the coders were unsure of the categorisation, text was highlighted but not categorised, and flagged for discussion with the other coder. Independent coding was cross-checked with discrepancies discussed to resolution between the two coders and a third member of the research team (C.J.M.). Like text excerpts were then grouped to enable quantitative reporting of meaning units. Finally, authors R.J.B., M.N., and C.J.M. met to review the coded data in its entirety and agree on categorisation within the matrix.

3. RESULTS

This study reports the barriers and facilitators to providing information about (i) the mental well-being impacts of hearing loss; and (ii) management options for improving mental well-being. Each of these two behaviours are described separately below. While the interview guide included a similar number of questions for each behaviour, participants provided more commentary in response to questions relating to the second behaviour.

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3.1 Provision of information on the mental well-being impacts of hearing loss

In response to the initial interview question: “To what extent do you provide information on the mental well-being impacts of hearing loss?” most HHCs described not performing this behaviour routinely. However, some described how they provide verbal information to a very few select clients who request this sort of information. By contrast, one highly experienced clinician described this to be part of her routine practice.

“I do it pretty regularly. Pretty much every time I identify hearing loss is to describe the possible impact that it could have on them and people around them.” ~ P-6

Barriers and facilitators to (i) providing information about the mental well-being impacts of hearing loss were identified within five of the COM-B categories, except for physical capability. The results from each of the other five COM-B categories are discussed in detail below with example quotes (further details can be found in Supplementary Table 2).

3.1.1. Psychological capability: Knowledge or psychological skills, strength or stamina to engage in the necessary mental processes

HHCs showed a high level of understanding regarding the range of mental well-being impacts of hearing loss, with all clinicians describing firsthand experiences of working with clients who had presented with emotional distress. A few participants described how their lack of knowledge and skills relating to how to provide this type of information posed a barrier:

“I’m not actually knowing how to say it to them without making them feel like they’ve got something wrong with them”~ P-7

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Two clinicians described knowledge of where to seek clinical resources that might assist them in delivery of information on the mental well-being impacts of hearing loss:

"There's also the Ida Institute I know that we can access, which has a lot of helpful things in terms of for clients." ~ P-1

3.1.2. Physical opportunity: Opportunity afforded by the environment involving time, resources, locations, cues, physical 'affordability'

Time and resources were described as both barriers and facilitators. Some participants described having sufficient time and resources while others did not.

"At the moment, it is on a handout that we give them. A little bit, not a lot, there's some facts on there. I guess we do give them something, but I would like to verbalise it more and actually discuss it. Again, I think there's the time restraint(sic) of that." ~ P-7

3.1.3. Social opportunity: Opportunity afforded by interpersonal influences, social cues and cultural norms that influence the way we think about things

The concept of social opportunity relating to the client was frequently raised, that is, whether the clinician's interactions with their clients posed as a barrier or facilitator to providing information about the mental well-being impacts of hearing loss. Clinicians were more inclined to describe this phenomenon as a barrier rather than a facilitator, noting that it often depended on the individual client.

"Again, I think some would definitely be open to it. It's like anything in the human spectrum, some would definitely be open to it, some might just open the door for them,

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and then others are just, I think something like non-threatening, in some kind of pamphlet that they can take it away, have a think about, that would be good for the ones that don't want to open up." ~ P-8

A few clinicians described the support of managers and colleagues as a facilitator to information provision. Importantly, these positive social influences also appeared to translate into physical opportunity for facilitators such as increased time and flexibility in appointment bookings.

*"If we didn't get things like our protocols, or learning how to do it, or some extra time and things like that. I guess the opinion of things like managers and thing like that, that would control that, and so that affects me doing it [providing information], yes."
~ P-7*

3.1.4. Automatic motivation: Automatic processes involving emotional reactions, desires, impulses, inhibitions, drive states and reflex responses

There were no statements coded as barriers to providing information about mental well-being impacts of hearing loss relating to Automatic Motivation. Clinicians described some facilitators categorised within Automatic Motivation: being happy to provide information to clients, and a desire to develop and provide information via written resources.

"I don't think I need any persuasion. I'm happy to do it, and I'd like to do it." ~ P-7

3.1.5. Reflective motivation: Reflective processes involving planning and evaluation

The majority of clinicians described beliefs that providing information would be beneficial to the client. Where some clinicians described a lack of confidence, others described being

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confident in their ability to provide information. Some clinicians also described a willingness to try providing information.

“I think sometimes maybe you won’t get it across, but it can’t hurt to try and simplify it and see if you can get something across that she might be able to take away.” ~ P-2

3.2 Provision of information on management options for improving mental well-being

In response to the initial interview question: “To what extent do you provide information on mental well-being management options?” the majority of clinicians described providing information and training only relating to the hearing loss and communication (communication strategies training), and not relating to managing mental well-being. This is despite clinicians indicating that 95-100% of their clients experience reduced emotional well-being due to their hearing loss and that between 60-80% of clients experience ongoing emotional distress even after hearing rehabilitation.

Barriers and facilitators to (ii) providing information on management options for improving mental well-being were identified within five of the COM-B categories. The results from each category are discussed in more detail below with example quotes (further details can be found in Supplementary Table 3).

3.2.1. Psychological capability: Knowledge or psychological skills, strength or stamina to engage in the necessary mental processes

Few clinicians demonstrated a good understanding of why the provision of information on management options for improving mental well-being is necessary within the audiological setting. Many demonstrated a lack of knowledge in relation to the types of support and

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management options that are appropriate for HHCs to recommend. All participants self-reported a lack of knowledge to be a key barrier preventing them from providing this information. Specifically, clinicians described a lack of knowledge with respect to identifying those clients who require information on mental well-being management; what sort of information to provide; how to present and discuss the information; who, when, and how to refer for specialist psychological services; and what psychological services entail, including accessibility and cost of services. In describing a lack of knowledge as a barrier, HHCs made it clear that increased knowledge was important to them. They specified items such as knowledge of psychological symptoms, local community groups, government-funded psychological support programs, and psychological intervention options to be desired areas for improved knowledge.

“Obviously, the most extreme ones is if you ever have to get to that question of, does it make you want to harm yourself? That’s a massive red flag. But the other one is a little bit harder to know, I’m not sure where that line starts sometimes, if you know what I mean.” ~ P-2

“I think they can get access on Medicare, like a mental health plan that gives them subsidised services or free services to counselling or psychology. But I don’t know how to set this up for them.” ~ P-9

Some clinicians described the skill of talking about mental well-being as an important factor.

“I think the more I get into feeling of ease talking about these things and knowing that I’ve got the confidence to point them in the right direction, the more likely I am to do it.” ~ P-1

Most participants described a lack of such skill, particularly having the language to discuss and describe mental well-being management options:

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"I think that's the big thing, we often don't know how to say it professionally." ~ P-10

Additional barriers included being unaware whether there were any clinical guidelines to support these processes, and difficulty applying patient-centred practices.

3.2.2. Physical opportunity: Opportunity afforded by the environment involving time, resources, locations, cues, physical 'affordability'

Lack of resources was commonly raised as a barrier to providing information on managing mental well-being. A few clinicians described how they had taken it upon themselves to develop a handout or referral tool, whereas the majority described how they would like their organisation to supply clinical resources to this effect.

"I think also it would be great to have one [handouts] on that social awkwardness ... so having some tips or tricks to help them overcome that nervousness ... I don't really talk about these things as much as I should. I think it's because I don't have the handouts. If I had handouts on the emotions, on the social isolation, then I would be able to talk about it." ~ P-5

Clinicians described financial barriers to include the time-cost to the clinic in providing mental well-being support (as time spent discussing mental well-being is not billable), and also the cost to the client as a barrier preventing clinicians from referring clients to psychological services. Five participants described time to be a barrier, whereas five participants described how time was not a barrier within their workplace. A lack of standard protocols to remind HHCs to discuss mental well-being was raised as a barrier by one clinician.

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Clinicians described their concern regarding the lack of appropriate psychological services available for people with hearing loss. They shared stories of past clients who had negative experiences with psychological services due to the GP or psychologists having little understanding of the hearing condition.

“You don’t know who they’re going to end up seeing. The person might not understand deafness at all. That could be a barrier to referring as well.” ~ P-4

“GPs should be helping them, but they don’t. They’re even more time poor than we are. We really are the ones to help them in this way.” ~ P-5

Three clinicians also discussed limited opportunity relating to finding the right mental health practitioner, and that not every practitioner or therapeutic approach is appropriate for every client, and that it is important for an individual to find a practitioner that they can connect with (build a therapeutic relationship), who also uses therapeutic techniques that they will be open to.

“I think, also, that they [clients] do need to be aware that sometimes you do need to hunt around for someone that you feel is effective for you and you’re comfortable with. Don’t necessarily stick it out if you don’t feel that the person [mental health professional] is the right person for you.” ~ P-6

3.2.3. Social opportunity: Opportunity afforded by interpersonal influences, social cues and cultural norms that influence the way we think about things

Clinicians described a variety of ways in which their interactions with patients impacted their provision of information, that is, whether the clinicians’ interactions with their clients

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supported or hindered the opportunity to provide information about management options, as being both a barrier and a facilitator, depending on the individual client.

"I think they also have to be open to you suggesting a counsellor as well, which isn't always the case." ~ P-2

"I don't think that they would expect it from us, but as long as we made it clear that this was linked to the hearing loss then I think a lot of them would be open to it." ~ P-

5

3.2.4. Automatic motivation: Automatic processes involving emotional reactions, desires, impulses, inhibitions, drive states and reflex responses

Some clinicians described feeling helpless about their ability to provide adequate information on mental well-being support options, whereas others described feeling good about providing information on improving mental well-being or feeling bad when they do not. All participants also described some apprehension around anticipating how a client may react to the provision of mental well-being management information within the audiology context.

"I think there's kind of a taboo on mental health issues. So perhaps, we all have a bit of fear in us. Maybe I speak for myself in bringing that up. So, referring to a podiatrist versus telling them that they might get some help from a psychologist can evoke a very different reaction. And perhaps I guard myself a bit." ~ P-6

A few clinicians described the onset of negative emotions (e.g., worry), linked to their lack of confidence in being able to address the mental well-being problems of their clients.

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“After she’d gone, I really worried about her. I thought something else is going on. I did talk about it being stressful times, and we talked about tactics to reduce stress, but I don’t think I handled that as well as I could have.” ~ P-6

“But I have to say, internally, I feel a little bit helpless at times because I don’t know that I have got enough resources or answers for them.” ~ P-2

3.2.5. Reflective motivation: Reflective processes involving planning and evaluation

Beliefs about the client benefits of mental well-being information provision, and subsequent engagement with the interventions or psychological services recommended, were commonly raised by clinicians and described as both a barrier and facilitator. Some clinicians expressed beliefs that mental well-being interventions may not always be beneficial for clients. The majority, however, expressed beliefs that the client would gain benefit should the clinician provide them with information pertaining to mental well-being management options.

“I’m also not even sure if it will work for everyone, and so I’m more hesitant to recommend it. I have no control over which of my clients will do well with the emotional or psychosocial stuff and which ones will receive no benefit.” ~ P-11

“If you treat them as a whole person and not just a hearing loss, we’re going to have better outcomes.” ~ P-8

Clinicians expressed uncertainty about their role in providing information on improving mental well-being; and this uncertainty appeared to act as a barrier for some. Other clinicians described their belief to be that providing mental well-being information was within their scope of practice, and this facilitated their likelihood to follow through on providing this information.

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Clinicians described a strong desire to improve their clinical practices with regard to providing information on the available options for improving mental well-being.

“I’m really excited about this. I really want to do more of this stuff. I really think audiologists should be less about the hearing aid and more about the impacts of hearing loss. I’ve always wanted to do more of this stuff, but never really known how to get started.” ~ P-3

Four participants also described feeling comfortable and confident in referring clients for psychological services where indicated. Two described being motivated by the research literature, and one described their belief regarding the importance of involving significant others when providing mental well-being support.

3.3 Suggested solutions

Throughout the interviews, clinicians expressed their desire for improved resources (e.g., printed information for clients), training (e.g., how to talk about the emotional impacts of hearing loss), and processes (e.g., reminders). Table 1 provides a comprehensive list of all suggested solutions and their counts.

“I’d like to have more knowledge about those psychologists that we can refer to. And perhaps, to have something that we can just hand to clients.” ~ P-3

“I think I would need some training. I feel like I could get there with practise, but I don’t really want to practise talking about that [improving mental well-being] on somebody. I think it would be good to get training on it and practise on other audiologists, or whatever, first. Then feel comfortable to implement it with people.” ~ P-7

“Maybe videos of others roleplaying” ~ P-5

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“And even self-help videos that we could refer them to, do you know what I mean? Like, I’m going to email you a link, I’d like you to watch that before I see you next time sort of thing.” ~ P-12

Table 1. Suggested solutions

Suggested Solutions		Count	
Resources	Resources - printed information for clients	29	
	Tool to aid discussion of impacts and options (including access and funding info & what the management options entail - i.e. what psychologists do)	13	
	A list of all places/hearing-trained psychologists that HHCs can recommend for managing the emotional impacts of hearing loss	8	
	Video demonstrations for the Client to Understand impacts and learn skills (awareness & self-help sessions)	7	
	Video demonstrations for the HHC to learn skills	6	
	Design an emotional/MH rehab program for us to deliver as a service offering	5	
	an interactive resource to help educate and support clients	4	
	Protocols/policy/guidelines for delivering MH support	4	
	Clear guidelines to know what to look for and how to refer clients	3	
	Need resource for referrals	3	
	Interested in a resource that helps with identifying when to refer a client	2	
	A resource for pre and post evaluation	2	
	Resource to attach to a GP report to educate the GP	1	
	Using talks, testimonials, and patients' stories via social media to inform clients of the impacts	1	
	Sending information about impacts before the appointments	1	
	Training	HHCs would like more training in how to talk about emotional impacts of hearing loss	15
		Training on intervention options (about the different counselling approaches)	11
Learning how to provide clients with MH self-help tips and tricks		5	
Practice to develop the skills		5	
role-play sessions		5	
training admin to be able to answer questions on MH support and pathways		3	
More training on the emotional impacts of hearing loss		3	
Learn about the different ways to support people with mental well-being concerns relating to HL		2	
case study examples		2	
Need to know about generalised groups in addition to local groups - list available to HHCs		2	
Training in how to be a counsellor		1	
education/training on referral pathways and processes		1	
Require training with assessment and Q & A to retain the skills		1	
Processes	Availability of an experienced colleague could be helpful for HHCs	6	
	Need reminders	5	
	Incorporate mental health questionnaires might be useful	5	
	Ongoing reinforcement and support in the clinics (after initial training)	5	
	Need extra time when learning how to implement the new skill in routine clinical practice	5	
	Regular team meetings to support each other as they develop the skills	2	
having liberty to increase the time of the appointments	1		

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	There should be a punishment for skipping over emotional impact stuff	1
	Send clients info a few days later to clients to avoid overwhelming them with info in one appointment	1
Others	Develop a close working relationship with a group of psychologists	5
	Funding	5
	Hire a psych/counsellor to work within the team	4
	Self-care strategies	1
	PD for psychologists to know about cochlear implant	1

4. DISCUSSION

This study was the first to explore barriers and facilitators to provision of information relating to mental well-being within the audiology setting. Participants were cognisant of the need to provide information on the mental well-being impacts of hearing loss, as well as information on the management options available to improve mental well-being and demonstrated a general desire to do so. However, results of this interview study indicated that there were barriers and facilitators in almost all domains of the COM-B model. Barriers and facilitators were reported at personal, professional, and organisational levels, which highlights the complexity of change required to improve the provision of mental well-being support within the audiology setting.

The accounts of 15 HHCs demonstrated divergence in knowledge and skill relating to information provision on the mental well-being impacts of hearing loss and management options for improving mental well-being. This is striking also for the fact that these HHCs were recruited from a single hearing service organisation. In general, participants demonstrated greater knowledge about (i) the mental well-being impacts of hearing loss, and less about (ii) the management options for improving mental well-being. Psychological Capability barriers included lack of knowledge relating to mental well-being signs and symptoms, management options available, referral processes, professional psychological

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services available (e.g., access and funding; programmes/techniques delivered by psychologists), and resources/tools to assist discussion of options. Others have also highlighted HHCs' lack of knowledge regarding mental well-being (Bennett et al., 2020b), and the need for audiology training courses to provide greater education on the social, emotional, and mental well-being impacts of hearing loss in Australia (Tai et al., 2018) and in the US (Whicker et al., 2017). Findings of the current study extend this work, indicating that HHCs also lack the skills for discussing (i) the mental well-being impacts of hearing loss, and (ii) management options for improving mental well-being. Participants specifically described lacking the language skills to discuss or describe mental well-being symptoms, knowledge of the appropriate words to use, and knowledge of how to appropriately respond when clients disclose mental well-being-related information. Educational interventions can be effective in enhancing empathy in healthcare professionals, improving their capacity to understand the experiences, concerns and perspectives of their clients and communicate this understanding within clinical consultations (Batt-Rawden et al., 2013; Hojat et al., 2009). Empathy training for clinical HHCs warrants further investigation (Whicker, 2020).

Lack of social opportunity was also identified as a significant barrier, specifically some clients' lack of openness to receive mental well-being-related information from their HHC. This lack of openness may be influenced by a lack of awareness of the role of the HHC in providing mental well-being support. It may also be influenced by stigma relating to mental well-being issues more generally (Nakash et al., 2019). Meta-analytic data demonstrates a negative association between stigma and active help-seeking and emphasizes the important differential role of stigma types, with an individual's own attitudes having a greater influence on help-seeking than the role of perceived public attitudes (Schnyder et al., 2017). Campaigns

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promoting mental well-being may help to ease mental health stigma and facilitate early help-seeking.

Other major barriers to the provision of mental well-being information identified were related to motivational factors. Clinicians described feeling uncomfortable when discussing mental well-being management options with clients, and also feeling helpless due to not knowing how to fully support clients. These feelings of helplessness and powerlessness in relation to supporting clients with mental well-being needs are echoed by other health professionals (Hamptons et al., 2015; Zimering et al., 2003). Participants in the current study also described fears that clients may react negatively to mental well-being related discussions. Fear of offending clients has been described by other healthcare professionals as a primary barrier to detecting mental well-being symptoms and providing timely support (Mccauley et al., 2019). However, findings indicate that from the client's perspective, primary concerns for discussing mental well-being are related to the fear of being perceived negatively by the healthcare professional (Dew et al., 2007; Gask et al., 2003). Paradoxically, people with mental health concerns report that healthcare professionals providing both mental and physical health services are a major source of the stigma surrounding some mental health conditions (Reddyhough et al., 2020). Importantly, health professionals can play the role of *stigmatiser* (to cause stigma through characterizing or branding as disgraceful or shameful) or *destigmatiser* (to remove the negative associations from something once regarded as shameful or disgraceful) (Friedrich et al, 2013). Given the effectiveness of early detection and intervention for improving mental well-being and alleviating the burden of disease (Reynolds et al., 2012), HHCs have an important role to play in breaking down the stigma and normalising conversations on mental well-being, and supporting clients with their mental healthcare journey.

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Clinicians expressed limiting beliefs concerning their role and responsibilities regarding provision of mental well-being support. This may be underscored by a clinician's beliefs about whether providing mental well-being management pathways information was within their scope of practice, as only some clinicians considered this role within their scope of practise. Uncertainty regarding the role of the clinician in providing mental well-being support has been previously reported (Bennett et al, 2020b). Investigating the knowledge, beliefs, and practices of Australian HHCs in addressing their clients' emotional needs, Bennett et al, 2020b) found that one third of HHCs indicated provision of emotional support to be outside of their scope of practice, despite practice guidelines clearly stipulating the importance of a holistic approach to hearing healthcare services (Audiology Australia, 2013). Participants in the current study called for the development of position statements, practice standards and clinical guidelines to work towards addressing this uncertainty and providing HHCs with guidance and permission to address mental well-being within the audiology setting.

Additional barriers relating to motivation included clinician beliefs about clinical psychologists' ability to address the mental well-being needs of adults with hearing loss, and doubts about whether mental well-being services are truly beneficial for clients with hearing loss. The extant literature provides unequivocal evidence of improved mental well-being from psychotherapeutic intervention. On one hand, HHCs could be accused of therapeutic nihilism, holding an inappropriately pessimistic view of a patient's outcome and the ability of a patient to benefit from intensive therapeutic intervention. Nihilistic views can deprive patients of the chance of improved outcomes. On the other hand, psychologists receive little to no training on hearing loss awareness, and some reports suggest that psychologists may be

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lacking in the skills required to treat this population and their unique needs (Fellinger et al., 2012; Vernon et al., 2007).

4.1 Limitations and further research

This study had some limitations. First, participants were strategically recruited from a single chain of hearing aid clinics to ensure context-specificity to aid intervention development, however this does limit the applicability of the findings to other settings. Hearing healthcare clinicians working within other clinics and healthcare settings are likely to have some similar and some alternative experiences. Future studies could explore the barriers and facilitators to mental well-being support in other hearing services organisations to establish whether there are common barriers that perhaps need to be addressed at a broader professional level.

Second, although participants were randomly selected, participation was optional. All staff approaches accepted the invitation to participate and thus were likely comfortable discussing this topic within the context of this project. Other staff members may have other experiences and opinions. Finally, the COM-B model was used as a framework to deductively analyse the interview data and thus sections of transcript that did not align with the COM-B domains were discarded. An inductive analysis of this dataset may provide interesting perspectives on related behaviours that were outside the focus of this study but considered worthy of sharing by the participants in the study.

5. CONCLUSIONS

This study used the COM-B model of behaviour change to identify the barriers and facilitators to the provision of information relating to mental well-being within the audiology setting. Participating HHCs were cognisant of the need to provide information on the mental

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well-being impacts of hearing loss, as well as information on management options available, and demonstrated a general desire to do so. However, barriers and facilitators were identified in all domains of the COM-B model investigated, most notably in psychological capability, social opportunity, automatic motivation, and reflective motivation. These barriers and facilitators were reported at personal, professional, and organisational levels, which highlights the complexity of change required to improve provision of mental well-being support within the audiology setting. To effectively support mental well-being within the audiology setting, HHCs need to address their personal perceptions, capabilities and behaviours in relation to mental well-being support.

Acknowledgements. The authors would like to thank clinicians who participated in this study and the Ear Science Institute Australia for participant recruitment. This work was supported by a Raine Priming Grant from the Raine Foundation, the University of Western Australia.

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