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Hearing loss & social isolation – the silent burden

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Untreated hearing loss is a large direct cause of disability and is associated with increased risk of social isolation, depression and anxiety. Māori are at risk of greater unmet needs in hearing health care in Aotearoa New Zealand, which can contribute to greater inequities. This blog argues that significant changes are needed in order to increase access to hearing healthcare and to reduce the risk and consequences of social isolation.

Figure 1. This picture was chosen as it illustrates two elderly people in each other's company. Tying in with the theme of hearing loss and social isolation, this depicts the importance of connection to each other and the world in which we live.

As humans, a fundamental part of our being is rooted in connection. That is connection to others and connection to the world in which we live. Hearing loss, if left untreated, threatens this connection and increases the risk of social isolation. In adults, untreated hearing loss significantly increases the risk of developing dementia, with one purported mechanism putting social isolation at the crux of this increased risk (1). To put this in perspective, hearing loss is the third leading cause of years-lived-with-disability across all ages, and for those over the age of 70 years of age, hearing loss is the leading cause (2). Therefore by appropriately treating hearing loss, the disability burden and risk of social isolation can be reduced.

Mamo et al have reported that although age-related hearing loss is highly prevalent, only approximately 20% of adults with a hearing loss will use amplification (3). In New Zealand, the prevalence of hearing loss in those aged 60-69 years is 15%, and in 70 years and over it is 22% (4). In Māori populations, 32% over the age of 65 years report experiencing hearing loss, relative to 28% for all New Zealanders in this age-group. Further, Māori have a greater unmet need for special equipment (30%) compared to non-Māori (17%) (5). The disparity in unmet needs for Māori is particularly concerning as health inequities are already widespread. In Māori populations, the inability to communicate easily creates significant barriers to oral communication, which are central to Māori culture (eg, with hui). Moreover, Kaumātua (elders), who are at the most significant risk of age-related hearing loss, are often responsible for leading and facilitating huis. Consequently, untreated hearing loss can result in disengagement from such meetings, loss of maintenance of Māori culture, and significant social isolation for hearing impaired people.

Hearing loss, social isolation and Te Whare Tapa Whā

Let's unravel the issue of social isolation in hearing loss using a well-defined Māori model of health, Te Whare Tapa Whā. In Te Whare Tapa Whā (a four-sided house), health is described as being holistic with four main components: 1) taha wairua (spiritual health), 2) taha hinengaro (mental health), taha tinana (physical health) and taha whānau (family health) (6, 7). If one of these elements is missing or damaged, a person may become unwell (7). Social isolation caused by hearing loss can therefore impact any of these facets.

The inability to hear can leave one feeling 'left out', unengaged and disconnected, which can lead to anxiety and depression (8). Hearing loss has a ripple effect on not only the individual but their spouse and whānau too, which the WHO defines as a third party disability (8, 9). This means that the social restrictions placed on the hearing impaired person may also be placed on the family, impacting taha whānau (10).

Social isolation has marked impacts on physical health (taha tinana) and mortality risk through multiple mechanisms. Identified neurobiological changes as a result of social isolation include increased vascular resistance in young adults, increases in cortisol levels (a stress hormone which if chronically elevated can result in harm to health), and sleep disruption (11). Those with a hearing loss are also at an increased risk of sedentary behaviour due to barriers to engaging in activities, due to embarrassment felt when not following conversations easily as well as the associated fatigue experienced due to increased listening effort; a common report from those who are hearing impaired (12). Further, mounting evidence suggests that hearing loss is actually the greatest modifiable risk factor in midlife for dementia, and it is thought that social isolation may mediate the pathway between hearing loss and cognitive decline (1, 13).

Lastly, hearing loss can lead to a reduction in spiritual health where it can result in disconnection from the world in which we live and from experiencing meaning and purpose in life through cultural connections, participation in the community, and paid or unpaid work. Loss of connection to culture is particularly important in Māori communities, where untreated hearing loss reduces the ability to build and maintain te Reo Māori and access community events (as mentioned above). This impacts connection with the Māori world; these connections are considered essential for cultural identity (14).

Barriers to access to hearing health care and how to overcome them

The barriers to access in hearing health care are likely multifaceted and include persistent social stigma, inequitable access to hearing health care and lack of awareness around hearing health and the risk of untreated hearing loss. We also know that hearing loss itself can limit access to education and healthcare (important social determinants of health) creating a vicious cycle (15).

Multiple resources are needed for early detection, prevention and rehabilitation of hearing loss. For example, new born hearing screening was introduced in 2010, meaning hearing loss is detected early and the necessary habilitation is undertaken to ensure appropriate speech and language development in children. In adults, various funding streams are available for either subsidised or fully funded devices, depending on the history and circumstances of the individual. However, full-funded hearing aids or cochlear implants have strict criteria. Those who aren't eligible for funding may have limited access to amplification as the general cost of hearing aids remains high. This is concerning as the socioeconomic indicators for the Māori population rank significantly lower than non-Māori

(16) meaning the cost of hearing aids is likely to dramatically reduce access by Māori to such interventions. One recommendation for the 2021 World Report on Hearing was to ‘strengthen health systems to deliver quality hearing health care at all levels’ (8). One way to achieve this is making hearing aids more affordable for those in low socioeconomic brackets. This would significantly improve access to hearing health care, subsequently strengthening all aspects of Te Whare Tapa Whā.

Secondly, to ensure services and education are reaching Māori populations in an appropriate manner, it is paramount that we have systems aligned with Kaupapa Māori. Health literacy regarding hearing protection and rehabilitation can be delivered from services such as local iwi, local marae, and whānau ora navigators. Also a recent study by Manuel et al (2021) advocated for more Māori clinicians or at least more clinicians in hearing healthcare who understand Māori realities and cultural values. But it is also important that all health workers have cultural competency and demonstrate cultural safety to ensure they can provide culturally appropriate services (17).

In summary, hearing loss is an important public health issue in Aotearoa New Zealand and is contributing to health inequities. Improved funding support and enhancements of culturally appropriate service delivery seem to be required.

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