

The Australian Captioned Telephone Study: Non-Technical Summary

OVERVIEW

The ACTS was commissioned by the Australian Communication Exchange (ACE) and run in conjunction with its Australian trial of a web-based captioned telephone service (CTS). The ACTS is a survey-based study of 253 people who participated in the trial.

The study collected, amongst other things, data on demographic characteristics (age, gender), employment status and the use of communications technologies. Its main purpose, though, was to assess the health-related quality of life of this group of consumers and to find out about how hearing losses affect their activities and their lives. The study also collected preliminary data on the value that this group places on CTS. The latter information was collected primarily as a precursor to a trial of CTS using captioned handsets.

METHODS AND MEASURES

The ACTS used a measure of overall health-related quality of life called the *Assessment of Quality of Life* instrument (AQoL), which is a validated measure that was developed in Australia and has been used fairly widely, for a range of health conditions and to measure the effects of a range of interventions (e.g., cochlear implants) on quality of life. The AQoL is a good tool for measuring overall health-related quality of life. Its results are particularly useful for comparisons across consumer groups and they can be used for economic evaluations of interventions that can improve health-related quality of life.

The *Hearing Handicap Inventory for Adults* (HHIA) was also used. The HHIA was specifically designed to measure exactly how lower levels of hearing affect people socially and emotionally. This survey tool is useful because it is quite sensitive to differences in the ways that hearing losses, of various levels of severity, affect people's lives. Its results can be split into two subscales: the HHIA Social/Situational Scale (HHIA-S) and the HHIA Emotional Scale (HHIA-E).

Finally, a method called contingent valuation was used to elicit monetary valuations of web-based CTS. Two different contingent valuation approaches were used, but because the purpose of this part of the study was simply to collect pilot data, they are not afforded further discussion in this summary document.

This document provides a non-technical summary of the methods and results that were used in the Australian Captioned Telephone Survey (ACTS). For a discussion of technical background, statistical analyses, and citations, please refer to [1].

Table I
COMPARISON OF HEALTH-RELATED QUALITY OF LIFE
(AQoL UTILITIES)

Study	Participants	Mean
[2]	General population (Australia)	0.83
[3]	Influenza	0.72
[4]	Other Depression	0.71
[5]	Cochlear implant users	0.64
[6]	Hospital outpatients	0.63
[4]	Major Depression	0.54
[7]	Psychosis	0.50
[1] (this study)	Participants in the ACTS	0.49
[6]	Hospital inpatients	0.47
[8]	Suicidal ideation	0.45
[9]	Stroke	0.40
[3]	Older adults with chronic conditions	0.33
[10]	Elderly patients recently discharged from aged care assessment	0.30

Source: [2], except data in blue.

RESULTS

Health-Related Quality of Life

The results show that people who responded to the survey have low health-related quality of life by comparison with the Australian population, but also by comparison with groups of people whose illnesses or disabilities are recognised as serious. Table I shows how participants' results compared to the results from studies of other groups of consumers and patients, including the general Australian population. The reference values for this Table are one (which represents perfect health) and zero (which represents death). Table I shows that the AQoL measures of health-related quality of life for the ACTS sample are lower than those for influenza, depression, cochlear implant users, and hospital outpatients. They are close to the values reported by people with major depression, psychosis, and inpatient hospitalisation, for example.

The detailed results from the AQoL suggest that the results are largely driven by fairly poor results for psychological health and the senses, and this finding is consistent with the international literature on the effects of hearing losses. On

Figure 1. Responses to HHIA Item: “Do you feel ‘Handicapped’ by a hearing problem?”

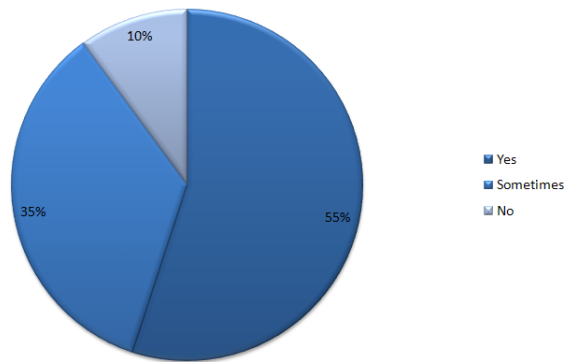
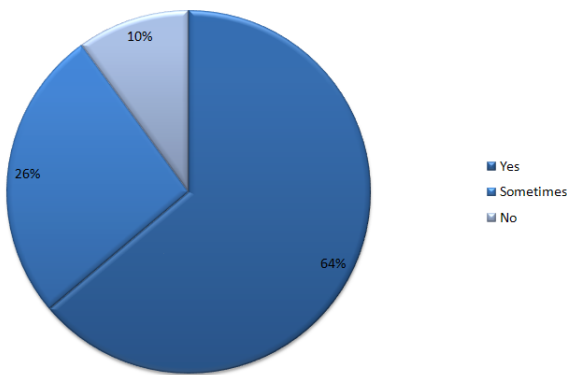


Figure 2. Responses to HHIA Item: “Do you feel that any difficulty with your hearing limits or hampers your personal or social life?”



the other hand, the results also showed that the respondents generally had high degrees of satisfaction with their level of independence and physical health. Thus, the sample could be characterised as an independent and physically healthy sample that is quite profoundly affected by hearing loss.

The results from the HHIA appear to confirm not only the AQoL results, but the results from the international literature: hearing losses, especially incurred later in life, can have profound effects on social and emotional wellbeing. The effects of hearing loss on social isolation and family conflict, in particular, are well-established.

Responses to two questions from the HHIA, reproduced below, provide a sense of how severely hearing losses affect the well-being of most people in this sample. Figure 1 and Figure 2 show that 90% of the sample felt handicapped by their hearing loss, and that the same proportion felt that their hearing loss inhibited their social lives.

The overall results from the HHIA also showed that 97% of

the sample has hearing losses that were associated, in another large Australian study (called the Blue Mountains Hearing Study)[11], to be associated with a “marked” level of hearing loss. It is estimated that only 1.9% of Australians have a hearing loss in this range. Thus, the ACTS confirms that the market for CTS is comprised primarily of people who not only have substantial hearing loss, but are also severely adversely affected by it.

CONCLUSION

The ACTS establishes that the target user group for CTS is a high-needs group whose members are severely adversely affected by hearing loss. Problems of social isolation and poor mental health utility appear to be driving the results. The results suggest that the average quality of life of ACTS participants is low by comparison with the Australian population and with groups who have serious health problems (e.g., depression). This result is striking, but perhaps not surprising: the symptoms of serious conditions such as depression are amenable to treatment and good management. Hearing-related quality of life losses are also amenable to intervention (e.g., the use of assistive devices such as hearing aids, CTS). However, it is an open question whether or not this group of consumers is generally afforded the same level of attention as consumers whose health needs that are amenable to treatment via pharmacological or therapeutic intervention. In other words, this result could reflect the poor management of hearing losses as well as the seriousness of hearing loss that this group experiences. Given the strong role that social isolation appears to play in this group, which otherwise is generally independent and physically healthy, interventions such as CTS have the potential to lead to considerable improvements in the quality of life of this group of consumers.

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