

# THE EMPLOYMENT EFFECT OF COCHLEAR IMPLANTATION IN SEVERELY-TO-PROFOUND DEAF ADULTS



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## 1. Objectives and Aims

Severe to profound hearing loss affects over 450,000 individuals in the United Kingdom (0.7%). Such hearing losses impact on poor literacy & educational attainment. Literature suggests patients with hearing loss exhibit reduction in health-related quality of life. They can suffer from lack of social independence and social isolation.

- To look at changes and income in employment status.
- To examine changes in perceived precarity of employment.
- To explore changes in perceived workplace confidence, discrimination and wellbeing.
- To identify any unmet employment needs after cochlear implantation.

## 2. Materials and Methods

Following ethical approval, 202 adults implanted between 18 – 65 years were identified from the Yorkshire Auditory Implant Services database. Semi-structured questionnaire was designed and trialled on an initial cohort of patients. The final design was posted to each individual. The responses were anonymised.

Outcomes included;

### Quantitative;

- employment status,
- income & family wealth
- precarity of employment,

### Qualitative

- job satisfaction and discrimination.

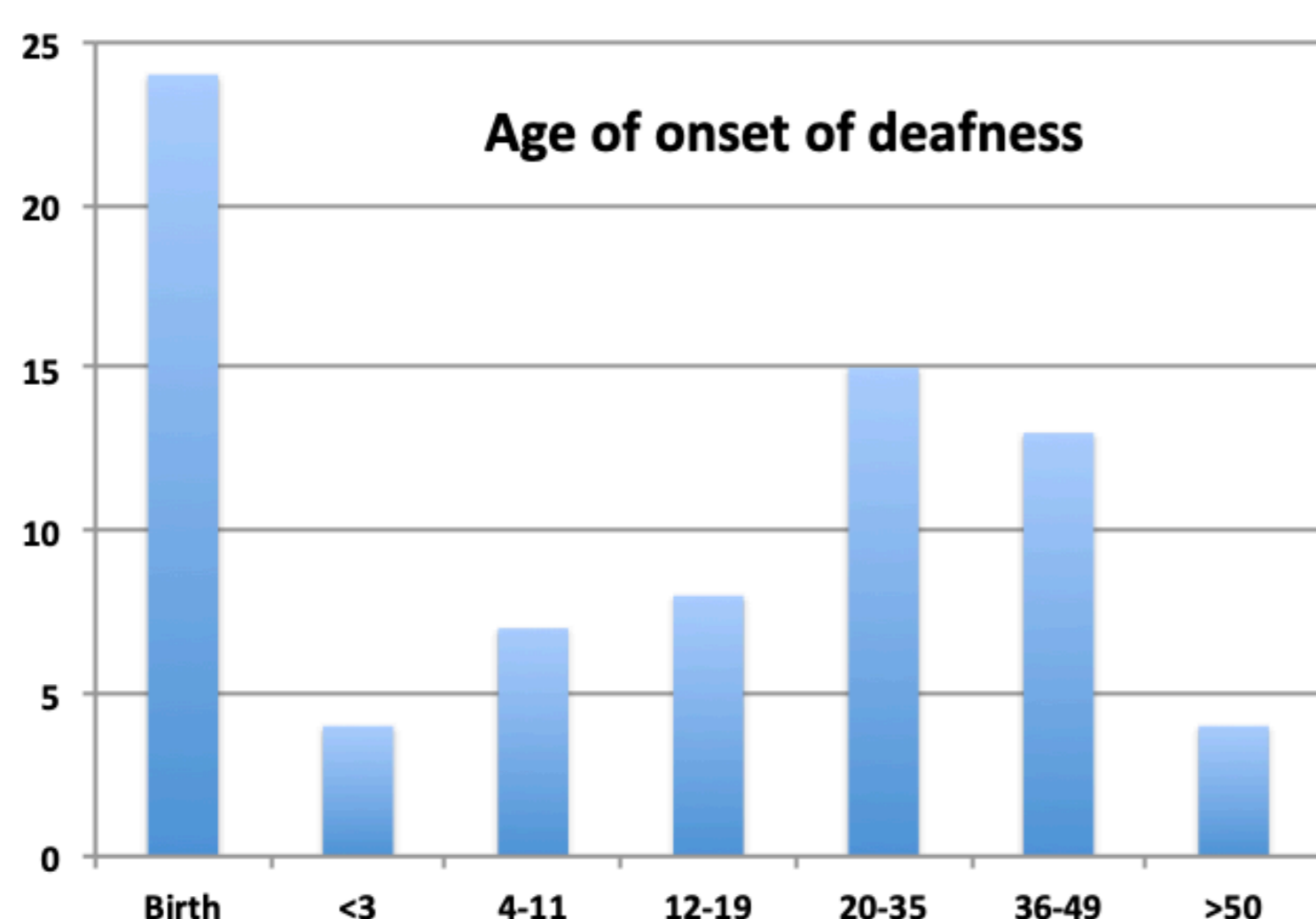
### Statistical Analysis;

Quantitative outcomes analysed by t-test, logistic ordered progression; McNemar's Test

Qualitative data by thematic analysis.

## 3. Results

The response rate was 75 (37%)



There was a broad response from patients with 28 (37%) self reporting as congenital or with prelingual hearing loss.

### Employment

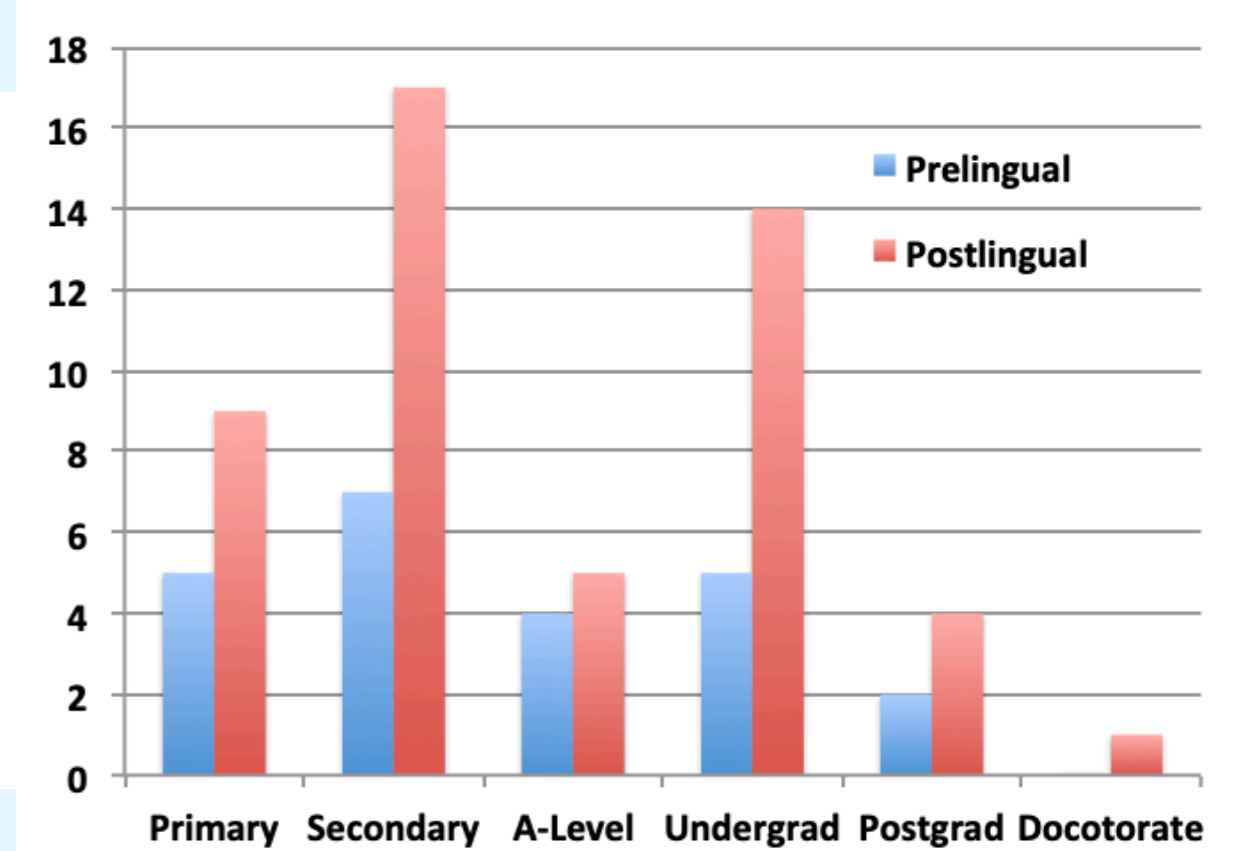
Pre implant 68 employed and 3 unemployed

Post implant 62 employed and 9 unemployed.

The reasons for the increase in unemployment were not for audiological reasons but for other comorbidities or desire for early retirement.

## Results

Educational achievement was ranked by the final level of education with comparison between when deafness was diagnosed - pre- and postlingually deafened.



Most believed they continued to work at their level of competency ( $p=0.16$ ), reduced employer-discrimination ( $p=0.31$ ), and increased job satisfaction ( $p=0.0001$ ).

The median values indicated on Likert scales (range -5 to +5) showed improvements in;

**Confidence +4**

**Motivation +3**

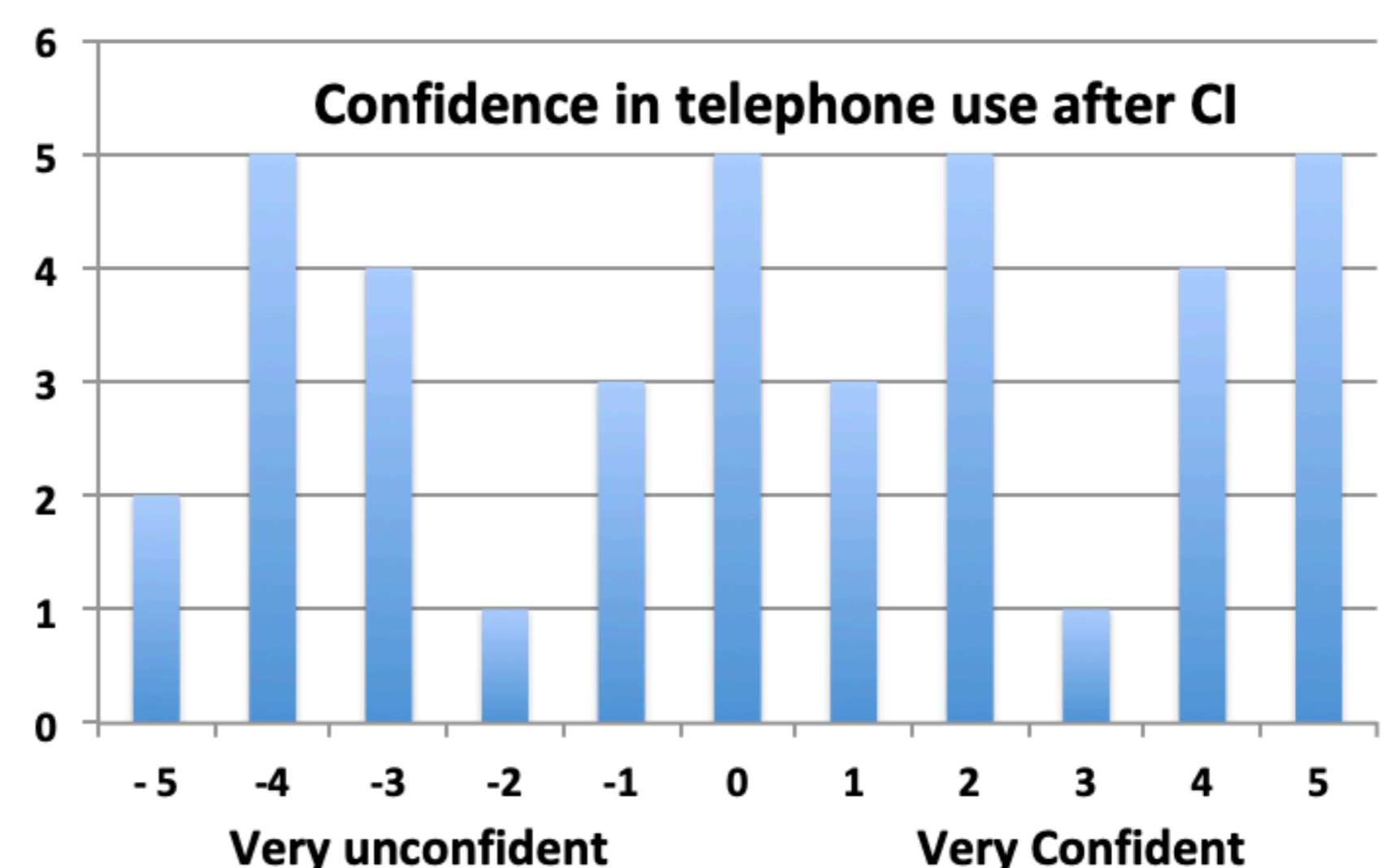
**Independence +4**

**Receiving recognition +2**

**Safety +4**

**Interpersonal relationships +3.5**

52% of CI users used the telephone at work yet only 66% of these people reported only able to talk to familiar colleagues. However, pre-lingual loss (N=24) would have recognised implications of use of the telephone needs to be recognised as would be expected to telephone competent.



## 4. Discussion & Observations

CI did not lead to more individuals gaining employment or improved income.

CI was associated with improved confidence; better wellbeing and perceived less likelihood of discrimination in the workplace.

Whilst employers communicate and make accommodation for CI users there were also unmet needs for workplace telephone training, which could be incorporated into rehabilitative occupational health programmes.

Reduction in employment rates was largely due to non-audiological reasons.