Hearing loss, mental health and cognitive function during social distancing

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Social distancing in the UK

- COVID-19 outbreak caused disruption in community and social interactions
- People >70 years were expected to ‘shield’ and limit face-to-face interactions
- In UK, 50% of people >70y live alone
- In UK, 70% of people >70y have hearing loss

→ Social distancing great impact on people >70y in terms of mental health, loneliness and cognitive function
Aims of our research

• Understand how social distancing is affecting people >70y and whether there are any differences for people with hearing loss
  – Anxiety
  – Depression
  – Loneliness
  – Cognitive function
Methods

• Created an online survey
  – Hearing loss data (self-report & SSQ-12)
  – Anxiety (self-report & GAD-7)
  – Depression (self-report & PHQ-9)
  – Loneliness (DJGLS)
  – Cognitive function (self-report & PROMISv2)

• Baseline and 12-week follow up data
Preliminary Results- 90 participants

- Mean age = 75.84 (SD=5.55) [range 63-91]
Preliminary Results- anxiety

GAD-7: scores ranged 0-17, average= 2.74 (SD=3.88)

➔ Hearing loss (SSQ) is associated with greater **anxiety** during the pandemic?

Participants anxiety scores **increased by 0.34** points for each unit decrease on the SSQ (worse hearing) when controlling for age, gender and level of education.

\[(F (4,76)= 3.227, \ p= 0.17, \ R^2 =.145)\]
Preliminary Results- depression

PHQ-9: scores ranged 0 - 21, average 4.68 (SD= 4.84)

- Hearing loss (SSQ) is associated with greater depression during the pandemic?

Participants depression scores increased by 0.67 points for each unit decrease on the SSQ, when controlling for age, gender and level of education.

\[(F (4, 77) = 5.573, p = .001, R^2 = .225)\]
Preliminary Results- Loneliness

DJGLS: scores ranged 0-6, average 2.61 (SD=1.93)

→ Hearing loss (SSQ) is associated with greater loneliness during the pandemic?

Participants loneliness scores increased by 0.22 points for each unit decrease on the SSQ, when controlling for age, gender and level of education

\( (F (4,76) = 4.058, p=.005, R^2 = .176) \)
Preliminary Results- cognitive function

PROMISv2: scores ranged 20.10 -68.90, average 54.08 (SD=10.28)

→ Hearing loss (SSQ) is associated with lower scores of cognitive function during the pandemic?

Participants perceived cognitive function increased by 0.158 points for each increase on the SSQ (better hearing), when controlling for age, gender and level of education.

(F (4,73) = 6.686, p<.001, R² = .268)
HAVE THESE CHANGED DURING THE PANDEMIC?
An increase in one unit of SSQ is associated with a decrease in the odds of having a more negative change in anxiety (OR=0.97; 95% CI: (0.96, 0.99)).
An increase in one unit of SSQ is associated with a decrease in the odds of having a more negative change in depression (OR=0.98; 95% CI: (0.96, 0.99)).
An increase in one unit of SSQ is associated with a decrease in the odds of having a more negative change in memory (OR=0.97; 95% CI: (0.95, 0.99)).
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