Perceiving the emotion in communication by persons with combined visual and auditory impairment

Published: 03-05-2017
Last updated: 11-07-2024

The main objective of the study is to understand the individual and combined effects of VI and HI on ECP. Secondary objectives are to create the proper tools to study these effects, understand the interactive effects of the auditory and visual...

Ethical review	Approved WMO
Status	Recruitment stopped
Health condition type	Hearing disorders
Study type	Observational non invasive

Summary

ID

NL-OMON45546

Source
ToetsingOnline

Brief title
EMPHASIS

Condition

- Hearing disorders
- Vision disorders

Synonym
Hearing loss, vision loss; auditory impairment, visual impairment

Research involving
Human

Sponsors and support

Primary sponsor: Universitair Medisch Centrum Groningen
Source(s) of monetary or material Support: Ministerie van OC&W,UitZicht

Intervention

Keyword: Communication, Emotion perception, Hearing impairment, Visual impairment

Outcome measures

Primary outcome

The main outcome of these studies will be the differences in psychophysical performance measures (identification accuracy, detection sensitivity, response time), eye-tracking, and physiological measures (BOLD responses) due to HI and VI.

Secondary outcome

A secondary outcome is the effect of amount and type of audio and video distortion on emotion perception on the same behavioural and physiological measures.

Study description

Background summary

Sensory impairments are common among the elderly population. Difficulties in communication are one of the major problems these people face. Not being able to communicate properly could ultimately lead to a reduced quality of life. Although the actual words (lexical content) in speech is essential, to truly understand a speaker*s intentions one must additionally gauge his/her emotions. Emotion in communication is carried by cues in both the auditory and visual domains. While it is known the two modalities interact, for communication in general and emotion in communication perception (ECP) in particular, the underlying mechanisms remain unknown. Even more so, there is no scientific knowledge on what effects visual and hearing impairments have on ECP, while we anecdotally hear complaints from this patient population that they have difficulties with ECP, it can be assumed that there are complex interactions between hearing impairment (HI) and visual impairment (VI) that may prevent current rehabilitation programs to be effective to the full degree. To be able to develop more effective treatments, it is essential to first understand how

HI and VI affect multimodal emotion perception during communication.

Study objective

The main objective of the study is to understand the individual and combined effects of VI and HI on ECP. Secondary objectives are to create the proper tools to study these effects, understand the interactive effects of the auditory and visual modality on ECP, and to unravel the neural mechanisms involved in ECP.

Study design

The study is a non-invasive observational study, with both within- and between-subject comparisons. During screening visual and auditory functioning will be measured. In all experiments the participants will attend to recordings (audio and/or video) that convey emotion and asked to identify the conveyed emotion. In addition, questionnaires on auditory and visual function, personality, and emotional processing will be filled in.

Study burden and risks

All methods proposed are non-invasive. Data collection will take 3 to 8 hours, depending on the experiment, which will be divided into shorter testing sessions of 2 to 4 hours. The sessions will include multiple breaks, which participants will be encouraged to take as often as needed. By distributing testing over multiple sessions conducted on multiple days as needed, as well as frequent breaks, will minimize fatigue for the participants and help maintain alertness for better data quality. Neither risks nor benefits are associated with participation.

Contacts

Public
Universitair Medisch Centrum Groningen

Hanzeplein 1
Groningen 9713GZ
NL
Scientific
Universitair Medisch Centrum Groningen

Hanzeplein 1
Groningen 9713GZ
NL

Trial sites

Listed location countries

Netherlands

Eligibility criteria

Age
Adults (18-64 years)
Elderly (65 years and older)

Inclusion criteria

Age > 18 years
Healthy, other than visual and auditory impairments (for patient group)
Native Dutch speaker

Exclusion criteria

Neurological or other psychological disorder
Known linguistic or speech disorders (such as dyslexia)
Non-native Dutch speaker
Not capable of understanding instructions and actively participating in experiments
Use of medication that influences the functioning of the brain (such as antidepressants)

Study design

Design

Study type:	Observational non invasive
Intervention model:	Other
Allocation:	Non-randomized controlled trial
Masking:	Open (masking not used)
Control:	Active
Primary purpose:	Other

Recruitment

NL

Recruitment status:	Recruitment stopped
Start date (anticipated):	15-08-2017
Enrollment:	150
Type:	Actual

Ethics review

Approved WMO

Date:	03-05-2017
Application type:	First submission
Review commission:	METC Universitair Medisch Centrum Groningen (Groningen)

Study registrations

Followed up by the following (possibly more current) registration

No registrations found.

Other (possibly less up-to-date) registrations in this register

No registrations found.

In other registers

Register	ID
CCMO	NL60379.042.17