Implicit attention to itch: an exploratory study

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Ethical review	Approved WMO
Status	Recruitment stopped
Health condition type	Epidermal and dermal conditions
Study type	Observational non invasive

Summary

ID

NL-OMON41019

Source ToetsingOnline

Brief title Implicit attention to itch: an exploratory study

Condition

• Epidermal and dermal conditions

Synonym Itch, pruritus

Research involving Human

Sponsors and support

Primary sponsor: Universiteit Leiden Source(s) of monetary or material Support: Ministerie van OC&W

Intervention

Keyword: Attention, implicit measures, Itch, Pruritus

Outcome measures

Primary outcome

The primary outcome is, in the somatosensory attention task modified for itch, the reaction time and accuracy (correct responses) of responses related to itch stimuli versus no stimuli.

Secondary outcome

The secondary outcome for the dot-probe task is the reaction time and accuracy (correct responses) of responses related to itch pictures compared to neutral pictures. Furthermore, the outcome of the Stroop task (reaction time for itch-related words compared to control words) and the total scores of the self-report questionnaires will be calculated, and related to the outcomes of the somatosensory and dot-probe attention tasks.

Study description

Background summary

The mechanisms underlying chronic pain are assumed to be based on altered signal processing and central sensitization processes. These processes lead to pain responses that are exaggerated, prolonged and spread widely. Similar mechanisms of altered signal processing and central sensitization are supposed to underlie chronic itch symptoms.

One of the key mechanisms in the perception of somatosensory sensations, e.g., itch and pain, are attentional processes. Attentional processes determine the prioritization of signal processing, e.g., of somatosensory stimuli, by exerting the function of a gatekeeper that processes signals by their saliency, for example when signals are relevant and/or threatening. Focusing attention on somatosensory stimuli is protective in the case of physical threat when attentional focusing leads to faster detection and more accurate discrimination of for example pain. However, in chronic pain the fear-driven unintentional process of attending (i.e. hypervigilance) can aggravate the pain symptoms. In view of the similarities between pain and itch, similar mechanisms of attentional processes might also be relevant to itch. However, the role of attention in itch has not yet been investigated systematically.

Study objective

The objective of the study is to experimentally investigate attentional focusing on itch. The primary focus will be on an automatic level of attending to somatosensory itch stimuli. Secondary, automatic attentional focusing on itch will also be investigated by use of visual itch stimuli in the dot-probe task and modified Stroop task. In addition, attentional focusing will be investigated on an intentional level (i.e., of which one is aware) by use of questionnaires.

Study design

This is an experimental study in which two tasks are used to investigate automatic attentional focusing on itch. The first task, the somatosensory attention task for itch, is based on the sensory spatial cueing task, which has been used by our collaborating partners from Ghent University with respect to pain. The second task is the dot-probe computer task, which has frequently been applied to measure attentional focusing to pain. Feasibility of these for itch adapted tasks will be investigated in healthy subjects. In addition, a modifed Stroop task for itch will be used to measure attentional focusing on itch words and validated questionnaires measuring attentional focusing on bodily sensations will be administered.

Study burden and risks

Potential participants will first complete a screening questionnaire (10 min). Participants will then visit the lab at the Faculty of Social and Behavioural Sciences of Leiden University once for approximately 70 minutes. For the somatosensory attention task for itch (which has frequently been used for pain by our collaborating partners from Ghent University), itch will be induced non-invasively by means of electrical stimulation, according to a method that has been validated by our research group and frequently been applied the past years. The dot-probe computer task has frequently been used in previous research, e.g., in relation to pain. The modified Stroop task for itch is currently being used in other studies of our research group and patients and healthy participants, who experienced the task as not-burdensome. The tasks are not difficult, but only require concentration. Moreover, a series of validated questionnaires will be administered to assess relevant individual characteristics. No risks are involved with participation in this study.

Contacts

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Trial sites

Listed location countries

Netherlands

Eligibility criteria

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

Inclusion criteria

Healthy volunteer; 18-30 years old; fluent in Dutch language

Exclusion criteria

Severe morbidity (e.g., multiple sclerosis, diabetes mellitus, heart or lung disease, rheumatoid arthritis, vasculitis), psychiatric disorders (e.g., depression), use of pacemaker, chronic itch or pain complaints, current use of medication, pregnancy.

Study design

Design

Study type: Observational non invasive		
Masking:	Open (masking not used)	
Control:	Uncontrolled	
Primary purpose:	Diagnostic	

Recruitment

NL	
Recruitment status:	Recruitment stopped
Start date (anticipated):	14-10-2014
Enrollment:	39
Туре:	Actual

Ethics review

Approved WMO	
Date:	08-10-2014
Application type:	First submission
Review commission:	METC Leids Universitair Medisch Centrum (Leiden)
Approved WMO	
Date:	27-10-2014
Application type:	Amendment
Review commission:	METC Leids Universitair Medisch Centrum (Leiden)

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

ССМО

ID NL50099.058.14