Social Network Analysis of Risk behavior in Early adolescence (SNARE) Genetics

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Ethical review	Approved WMO
Status	Recruitment stopped
Health condition type	Age related factors
Study type	Observational non invasive

Summary

ID

NL-OMON41990

Source
ToetsingOnline

Brief title
SNARE genetics

Condition

- Age related factors

Synonym
genetic, networks

Research involving
Human

Sponsors and support

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

Intervention

Keyword: genetics, peers, risk behavior, social networks

Outcome measures

Primary outcome

The primary parameter of the proposed study is the collection of DNA using buccal swabs from participant of the existing SNARE study to enrich an existing dataset.

Secondary outcome

The secondary parameter of the proposed study is to be able to answer the following questions

• Are peer environment effects on adolescent risk behavior moderated by genotype (gene-environment interaction)?

• Do carriers of specific genotypes elicit particular responses from their peers (evocative gene-environment correlation)?

• Is genotype an important factor in determining peer dynamics (active gene-environment correlation)?

Study description

Background summary

We know from prior research that engagement in risk behaviors such as delinquency and substance use is relativey common and typically has its onset in adolescence. Prior research has shown that both peers and genetic effects are important antecedents of such risk behaviours. However, no empirical research has been carried out to date that comprehensively examined the interplay between measured genetic effects and young adolescents* peer networks. That is, to understand the effects of peers and to disentangle whether peer influence changes adolescents* involvement in risk behaviours or

whether individual engagement in risk behaviour affects one*s selection into specific peer affiliations, longitudinal social network analyses are required. These have rarely been combined with measured genetic information before (not for this age group and including only a small selection of peers); we thus lack comprehensive insight into whether genetic effects drive peer selection and influence on a larger scale.

Study objective

The main objective of this study is to collect DNA within the frame of an existent study to bring together detailed, longitudinal data about adolescents* risk behaviors and peer relationship networks with information on genetic markers. Proposed analyses will include general replications of prior findings on genetic moderation of peer effects using more sophisticated and less biased methodology. Expecting further advances in the study of genetics within social science contexts, we propose to examine biological pathways through which measured/candidate genes affect associations between adolescents* social networks and their behavior.
The SNARE study is particularly suited to meet this objective. Adolescents have been studied with regard to their peer relations and engagement in risk behaviours since they were approximately 12 years old. The next important step is to collect DNA from these adolescents to determine the role of genetic effects in adolescent-peer-risk behaviour relations. In detail, we will focus on the role of candidate genes and polygenic scores that have been found to affect associations between peer environment and adolescent behaviour and examine whether these genes and gene scores also moderate associations if peer effects are measured within a social network framework. We have no plans for carrying out genome-wide association studies (GWAS). However, we will collaborate with other researchers should plans emerge to pool samples for GWAS.

Study design

SNARE participants and their parents will be contacted through an information letter send to their home address and asked whether they are willing to volunteer in the DNA data collection. Parents (or respondent themselves if 18 years old or older) are required to return completed consent forms by mail. We will follow up on non-responding adolescents by mail (reminder postcard) to avoid selective non-response. DNA will be collected individually in home visits. Home visits for data collection will take place during spring 2016 and will be conducted by trained research assistants who are knowledgeable about the use of genetic information in social science studies and can answer any remaining questions by parents or adolescents on the spot. Buccal swab kits will be marked with the study id number of the SNARE participant but no other identifying information.

Study burden and risks

The collection of buccal swabs takes a few minutes, is pain free and non-invasive. No risk to participants is known. Extensive information about the importance of inclusion of genetic data into social science studies will be provided to parents and participants. Participants and parents are encouraged to contact the research team with any questions that may arise.

Contacts

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Trial sites

Listed location countries

Netherlands

Eligibility criteria

Age
Adolescents (12-15 years)
Adolescents (16-17 years)
Adults (18-64 years)
Elderly (65 years and older)

Inclusion criteria

Previous SNARE participants (i.e., all first and second year students who took part in SNARE in 2011-2015 from a large school school for secondary education in a region in the northern part of the Netherlands with four different locations, covering all academic tracks).

Exclusion criteria

No previous participation in SNARE

Study design

Design

Study type: Observational non invasive

Masking:	Open (masking not used)
Control:	Uncontrolled
Primary purpose:	Basic science

Recruitment

NL

Recruitment status:	Recruitment stopped
Start date (anticipated):	04-04-2017
Enrollment:	1214
Type:	Actual

Ethics review

Approved WMO

Date:	21-03-2016
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	NL50751.042.14