Adolescent Brain Imaging and Gender Study!

Purpose: What is this research about?

There are three main questions we are trying to answer about brain development during adolescence:

- 1. Gender dysphoria is a feeling of having a different gender than the one assigned at birth, which can cause strong feelings of unhappiness. Individuals who experience gender dysphoria may want to change their body to match their experienced gender. We are investigating whether the brains of youth who experience gender dysphoria are more like their experienced gender.
- 2. When youth who experience gender dysphoria are recommended hormones as part of their therapy, how do these changes in hormone levels relate to how the brain changes over time?
- 3. How are sex hormones and brain changes related to wellbeing?

We are recruiting participants who experience gender dysphoria and/or identify as transgender as well as participants who do not experience gender dysphoria (i.e., participants whose gender identity aligns with their birth-assigned gender, considered by some as "cisgender"). You are being asked to participate as a youth who does not experience gender dysphoria.

Who is conducting this research?

Members of the Brain Health Imaging Centre (BHIC) at the Centre for Addiction and Mental Health (CAMH).

Who is eligible to participate in this research?

You are eligible if you are 12-17 years of age, and understand what the study is about and what will happen. You must be able to understand English well enough to complete all parts of the study. You are not eligible if: you have experienced head trauma, have had any kind of hormone therapy, have a known disorder that affects your hormones or sex development, you are wearing non-removable metallic orthodontics (i.e., braces), we determine that it is not safe for you to go into the MRI, you have severe claustrophobia, you are or could be pregnant, you have a neurological condition that affects your brain, you have been diagnosed with a learning/intellectual disability, substance use disorder, or schizophrenia, you feel uncomfortable with your birth-assigned gender and identify or wish to identify as a member of the opposite gender or a non-binary, third, or alternate gender.

How much time am I being asked to commit to participating?

You will be asked to participate in three sessions, about 10 months apart. Each session is 4 to 5 hours long.

Procedures: What will I be asked to do as a research participant in this study?

Each session will be divided into four parts: (1) You will lay on your back in a magnetic resonance imaging (MRI) scanner while we take pictures of your brain; (2) You will complete cognitive puzzles; (3) You will answer some questions and have digital scans of your hands completed; and (4) You will provide a small blood sample. Note that you will <u>not</u> receive a treatment, an injection, or any form of radiation.

Does participating in this research affect treatment I receive from the CAMH or elsewhere?

Your decision regarding participating in this research will in no way affect the treatment that you or members of your family receive from the CAMH or elsewhere. You are free to decline the offer to participate and if you choose to participate you are free to leave the study at any point without consequence.

What will I receive for participating?

In recognition of the time you volunteer to be a research participant, you will receive financial compensation via gift cards and/or cash. You can choose to convert any financial compensation to volunteer hours. We will also reimburse any expenses that you incur as a result of travelling to participate in this research (e.g., parking, taxi, GO Transit, TTC). You can also receive a photo of your brain!

Where can I get more information about participating?

Those who are interested in finding out more information about this research, or are interested in participating in the study should contact the study coordinator at brain.study@camh.ca, text 647-616-2075, or call 416-535-8501 ext. 30433.

For information about programs and services at CAMH, please visit www.camh.ca or call 416-535-8501 (or 1-800-463-6273).



