

# EXPLANATORY STATEMENT

Project: STRESS & HEALTH Study

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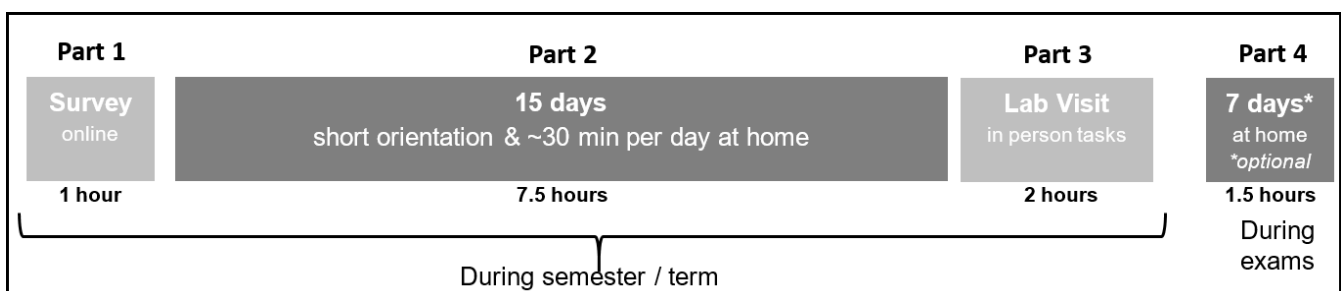
We invite you to take part in this voluntary study. Please read this entire Explanatory Statement before you decide whether to take part in this research.

## Summary

Many young adults move states or countries to start their university or college studies. During this time, they face many changes: new independence from family, moving and living in a new city, and new courses and studies. All these changes can cause stress.

The purpose of this study is to understand how young adults respond to stress during these transitions and what helps people manage stress. This study focuses on how family experiences, resilience, behaviours (diet, exercise, sleep), and coping strategies relate to stress and how people feel. The findings of this study will help us better understand stress and responses to stress, which we hope can help us develop interventions to **help people manage stress effectively**.

The study has **4 Parts** involving surveys, wearing devices to measure sleep and physical activity, reporting diet, and some saliva collections to measure cortisol, a marker of stress.



In total, the study takes up to about **12 hours**. If you take part, you will **receive a personalised report on your own data**. Your report will describe your stress and feelings, sleep physical activity, and diet. You can choose to customise the information you want. For example, if you want to compare your results to average results or compare against recommendations for best health. Your report also will tell you how all these pieces fit together to answer questions like: “how much does stress influence how you feel?” or “do you eat more after a poor night sleep?” Also, you can be paid up to **\$152** for your time

<b>Personalised Report</b>	
	Typical and daily levels of your stress and feelings.
	How much and how well you sleep.
	How physically active are you, compared to recommendations.
	<u>Amount and quality of your diet</u> , compared to recommendations.
	How does stress, your feelings, and behaviour all fit together?

## What does the research involve?

To be eligible to take part, you must:

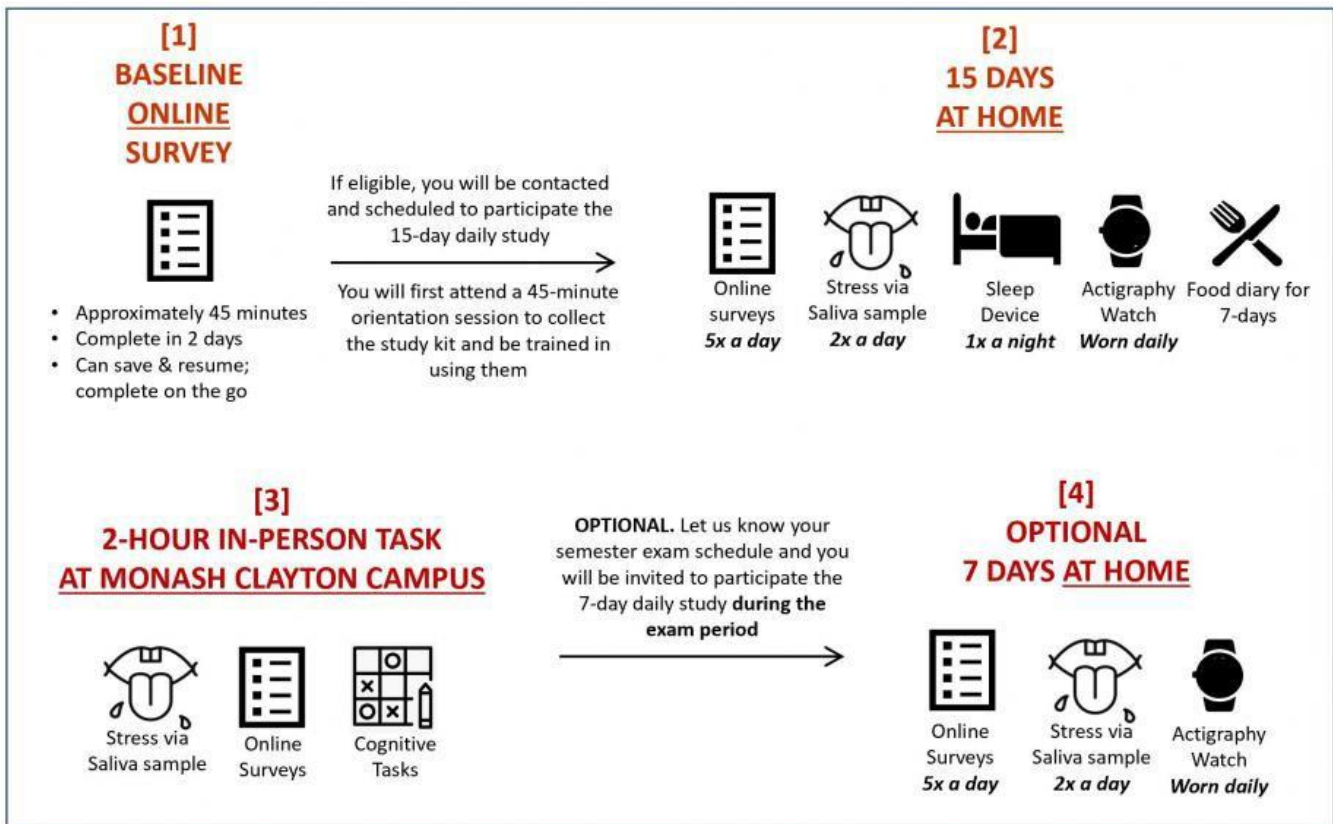
- Be between 18 - 25 years old
- Have moved to Victoria, Australia for **the first time** in the last 12 months
- Have **never lived in Victoria for more than 6 months** in the past 10 years prior to the start of your college or undergraduate degree
- Be an undergraduate (up to a maximum of 5-years; excluding Honours degree) or College student
- Be able to understand, read, and answer in English
- Be able to regularly receive and access emails
- Be able to travel to Monash Clayton campus
- Possess a smartphone that runs either Android OS or iOS (with enough storage to

download mobile applications)

- Have both parents still living
- Have never lived in foster care; have not been adopted

**If you agree to take part, we ask you to complete up to 4 Parts.**

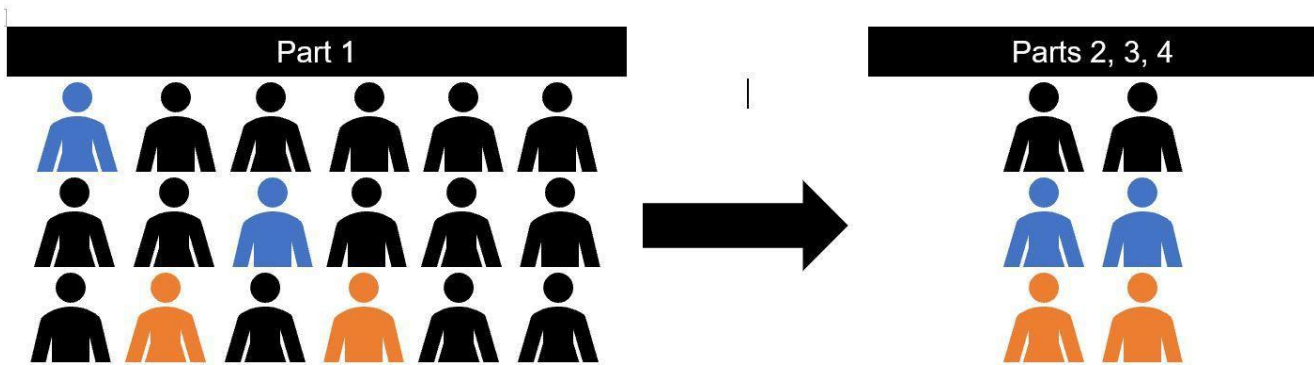
This figure summarises each part. Details follow



## Part 1. 45-minute online survey, completed one time

- After signing up for the study, if you are eligible, we will contact you to schedule you to complete an online survey that takes about 45 to 60 minutes. The survey asks about your background, feelings, behaviours, and family experiences growing up.
- You can answer the questions on your own time. You can save your progress and resume completing the questionnaire later, *as long as you complete the questionnaire within 2 days*
- We ask everyone who consents and is eligible to complete this part (Part 1).

We have space for as many people as are interested in Part 1. However, we only have space for about 100 people in Parts 2, 3, and 4. We want to make sure that people from more and less chaotic environments growing up and who are more and less resilient are equally represented in Parts 2, 3 and 4. Therefore, after Part 1, not everyone will be invited to Parts 2, 3, and 4. We will invite people *until we have enough of each type of person*.



## Part 2. 15-Day Study, Device Collection and Return

After completing Part 1, we will invite you to Part 2, which involves daily assessments at home across 15-days. It is really important that everyone who completes Part 2 also completes Part 3. Therefore, to take part in Part 2 you **must agree to take part in Part 3** (described later).

We will call to schedule a 45-minute, appointment at Monash University Clayton Campus **on Mondays**.

During this appointment, we will show you how to:

- (1) use devices that monitor sleep and physical activity,
- (2) install and use a mobile application to answer short surveys throughout the day,
- (3) report what you eat throughout the day online, and
- (4) collect saliva samples to measure stress.

At the end of the appointment, we will give you the device kit and schedule when you can come back after 15 days to return all the devices.

Here are more details about what we will ask you to do each day:

### 1) Answer surveys about your experiences on your mobile phone.

- A mobile app (MetricWire) will prompt you to complete 5 short surveys each day. Surveys ask about your sleep, emotions, hassles you may have experienced, and through a maximum of 1-minute audio recordings, to describe in your own words about your experiences.
- The questions stay the same each day, so you may find it takes less time to complete after your first day. In total, the surveys should take 10 minutes per day.
- The mobile app also will use your smartphone to collect location information to help us understand the environmental factors that may influence results. For example, people may feel differently when answering surveys at home or at school. If you do not wish location information to be collected, you may request this information not to be collected and we will show you how to turn it off in the app

Survey	Time period for completion	Duration
Morning sleep	6am – 6pm	< 2 mins
Morning survey	6am – 11am	< 2 mins
Afternoon survey	12pm-3pm	< 2 mins
Evening survey	4pm-7pm	< 2 mins
Pre-sleep survey	830pm – 430am	< 4 mins
<b>Total time per day</b>		<b>~ 10 mins</b>

## 2) Dietary record:

- We ask you to report every meal, snack, and beverage as you consume throughout the day for the first 7-days of Part 2.
- You report what you eat through an online platform. Please report as you eat any snack, meal, or beverage, because it is harder to remember exactly what you ate if you wait.
- Typically, it takes about 30 minutes per day to report everything. However, time can vary depending on the type and how many different foods or drinks you have.

## 3) Salivary cortisol samples:

- We ask you to supply 2 saliva samples each day. These saliva samples let us measure cortisol, which is a biological indicator of stress.
- The two saliva samples happen: 1) in the morning **when you first wake up** (before brushing your teeth, drinking water, or consuming foods), and 2) **before bed time**.

## 4) Wear a wrist-watch actigraphy device (ActiGraph) that measures physical activity and sleep

- We ask you to wear the actigraphy device on your non-dominant hand for both the day and night throughout the 15-day study period.
- Wearing the ActiGraph is easy and not painful. It feels like wearing a watch and it works like fitness trackers (e.g., Fitbit).
- You can remove the ActiGraph during water activities such as swimming or showering.

## 5) Apply a sleep-monitoring device (Z-Machine Insight+)

- We ask you to wear an electroencephalography sleep-monitoring device each night while you sleep throughout the study period.
- Wearing the Z-Machine is easy and not painful.
- Each night before bed, you clean and put on three sensors: one below each ear and one

at the back of the neck. Putting these on is like putting a piece of tape or band-aid on your skin. When you are ready to go to sleep, you attach a cable to each sensor that allow the Z-machine to measure electrical activity from your brain. When you wake up for the day, you remove the sensors.

### **Part 3. SINGLE In-person session (MONDAY)**

This session will take place at Psychological Sciences Unit of the Biology Building, 18 Innovation Walk, Clayton Campus **on Mondays for 2 hours. To take part in this component, you must also take part in Part 2.**

1. On the day of your appointment, we will ask you to avoid doing a list of activities (e.g., consuming caffeine) as outlined in the instruction booklet provided to you. **If you do any of these activities before the session**, we ask that you inform our research staff so we may **reschedule** your appointment.
2. During this session you will be completing cognitive tasks involving speech and numbers. Some of these activities may be videotaped ('Confidentiality' outlined below).
3. We ask you to complete four, short surveys throughout the visit.

Throughout the visit, we will collect your height and weight, ask you to supply five saliva samples and also ask to take your blood pressure five times. We also ask you to wear a watch-like device that measures heart rate and skin conductance (a measure of stress) throughout the whole visit.

### **Part 4. OPTIONAL. 7-day study (examination period).**

This part is optional. You must complete Parts 1, 2, and 3 to complete Part 4. We will schedule your start date approximately 4-days before your first examination to end 3 days after. We are very interested in how you feel and sleep may change during examination periods. However, we also understand you have many other demands during exams, which is why we made this part completely optional. If you choose to take part, we ask that you:

#### **A. Schedule a visit to pick up and drop off the ActiGraph device and saliva sample kits.**

These will be very short visits, just about 2-3 minutes as all the procedures are the same as in Part 2. All you need to do is pick up and drop off the device kits.

#### **B. Each day: answer questions about your feelings and experiences.**

These are identical to Part 2. They will be completed at home, on your mobile phone and in total take about 10 minutes per day.

#### **C. Each day: wear a wrist-watch actigraphy device (ActiGraph) that measures physical activity and sleep.**

This is identical to the ActiGraph described in Part 2. You wear it on your wrist, like a watch.

#### **D. Each day: supply two saliva samples.**

This is identical to the saliva samples in Part 2.

Upon completion of the 15-day (part 2) or 7-day (optional, part 4) study, we will call you to collect your academic examination results when published.

### **Why were you chosen for this research?**

You were chosen because you responded to online, printed, or in-person advertisements for the study.

### **Consenting to participate in the project and withdrawing from the research**

Participation in this study is voluntary. If you do not wish to take part, you do not have to.

***At the end of this explanatory statement are several questions. By clicking “I consent, begin the study” and providing your contact details, you are consenting to be part of this research.***

*If you choose not to take part in this study, your option is to click “I do not consent, I do not wish to take part” or not provide us your contact details.*

**If you decide to take part and alter change your mind, you are free to withdraw at any stage** by contacting the research team at [psych.stress@monash.edu](mailto:psych.stress@monash.edu) or (03) 9005 7297.

- You will still be compensated based on the number of Parts and days of the study that you completed.
- You also have the option to withdraw all data collected by requesting the research team to erase your data.

**Risks for you as a participant.** There are no major foreseen risks in taking part in this study.

- i. *Personal questions* may make you uncomfortable or could produce stress (for example, “what type of stressor did you experience today?”). You may decline to answer any questions or to disclose information during your participation.
- ii. The *in-person session tasks* also may induce stress or discomfort. However, you may choose to discontinue the task during your participation should you feel distress.

- iii. If you do experience any significant distress from this study, you may contact a list of counselling/support services provided below.
  - iv. There are *no known risks associated with the collection of saliva*. For people who tend to have a dry mouth and produce little saliva, there can be some discomfort in providing saliva samples.
  - v. You may *experience minor skin irritation from the nylon band while wearing the ActiGraph watch*. If you experience any irritation or discomfort while wearing either of these watches, please remove them and let us know.
  - vi. Although access is restricted to study personnel only, we use secure passwords, and data encryption, there is a *small possibility that theft or hacking could compromise your data*. In the unlikely event that occurs, others may find out your contact details and responses to study questions.
  - vii. The analyses to determine cortisol from saliva are conducted by an outside lab. We will only send your saliva samples identified by a numeric code so the outside lab will not have anyway to link them back to your name or contact details. Further, as part of our arrangement with this lab, they promise to keep all data confidential and to only conduct the analyses we ask them to.
- However, every saliva sample contains genetic information and although we are not analyzing your data for genetic information, during shipping or while being stored by the outside lab, there is a small chance they could be stolen or misused by someone else.

### **Services on offer if adversely affected**

*24/7 Mental Health Support Lines for Monash Students and Staff (free and confidential)*

- Students: 1300 STUDENT (1300 788 336), Staff: 1300 360 364
- From elsewhere outside Australia (students and staff): +61 2 8295 2292

*Anxiety, depression or suicide - 24-hour service*

- Lifeline: 13 11 14, Suiceline: 1300 651 251, Suicide Call Back Service: 1300 659 467
- Obsessive Compulsive Disorder and Anxiety Helpline: 1300 269 438 or 9886 9377
- Kids Helpline (5 to 25 year olds): 1800 551 800

*Sexual assault - 24-hour service*

- Sexual Assault Crisis Line: 1800 806 292 or 9349 1766, Centre Against Sexual Assault: 9635 3610
- MensLine: 1300 789 978



### *Drugs, alcohol and gambling - 24-hour service*

- Turning Point: 1800 888 236, Gamblers Help: 1800 858 858

### *Grief and loss - 24-hour service*

- The Compassionate Friends: 1800 641 091 or 9888 4944, GriefLine: 9935 7400 (12pm to 3am)

## **Payment**

As a token of our appreciation, you will be compensated via electronic Coles voucher as follows:

You will receive up to **\$152** for completing this study, broken down as follows.

- Part 1. By completing the online survey for Part 1, you will have a 1 in 20 chance to win \$40
- Part 2. For each day:
  - \$2 for 2x cortisol (extra \$5 if complete >85%)
  - \$2 for completing surveys (extra \$4 if complete >85%)
  - \$1 for applying sleep machine (Zmachine; extra \$5 if complete >85%)
  - \$2 for completing dietary record (for 7 days; extra \$1 if complete all)
  - You will receive up to \$102 if completing **all daily assessments**
- Part 3. You will receive \$10 for taking part in the in-person session.
- Part 4. This part is optional and does not include additional pay.

We also will email a personalised report to everyone who completes at least Part 1. This report will include data from each Part of the study, so the more Parts you complete, the more information we can give you in your report. We will email you this report at the end of the study, after we have had time to prepare the data and write your personalised version. Examples of what the report will include for each part of the study are below.

Part 1. From the online survey part, your personalised report will include:

- a. Information about your mental health, how your mental health compares to the general population, and whether you are at any elevated risk. If you are at risk, we will supply some suggestions for getting help.
- b. Recommended levels of sleep and whether your sleep (based on self-report) is meeting recommendations or not.
- c. Information about your typical stress levels and how those compare to the general population.
- d. Information about what strategies you use to respond to stress along with a brief

summary of what we know are some effective approaches.

Part 2. From the daily part, your personalised report will include:

- a. Information about your daily stress and feelings across the 15-days of the study
- b. Information on the amount and quality of your sleep, based on high-quality data from the Z-machine, across the 15 days of the study. We also will supply notes on current sleep recommendations, and if you have at risk sleep, where to seek help.
- c. Information on your level of physical activity across all 15 days from the ActiGraph and current recommended levels of activity for Australian adults.
- d. Information on your diet, including the quantity you are eating, and how that compares with the estimated amount you need each day (based on your age, sex, height, weight, and activity levels).
- e. Summaries of how each of these pieces fit together. For example, on days when you were more stressed than usual, did you also feel worse and have poorer sleep that night? After a good night sleep, do you eat more or less the next day?

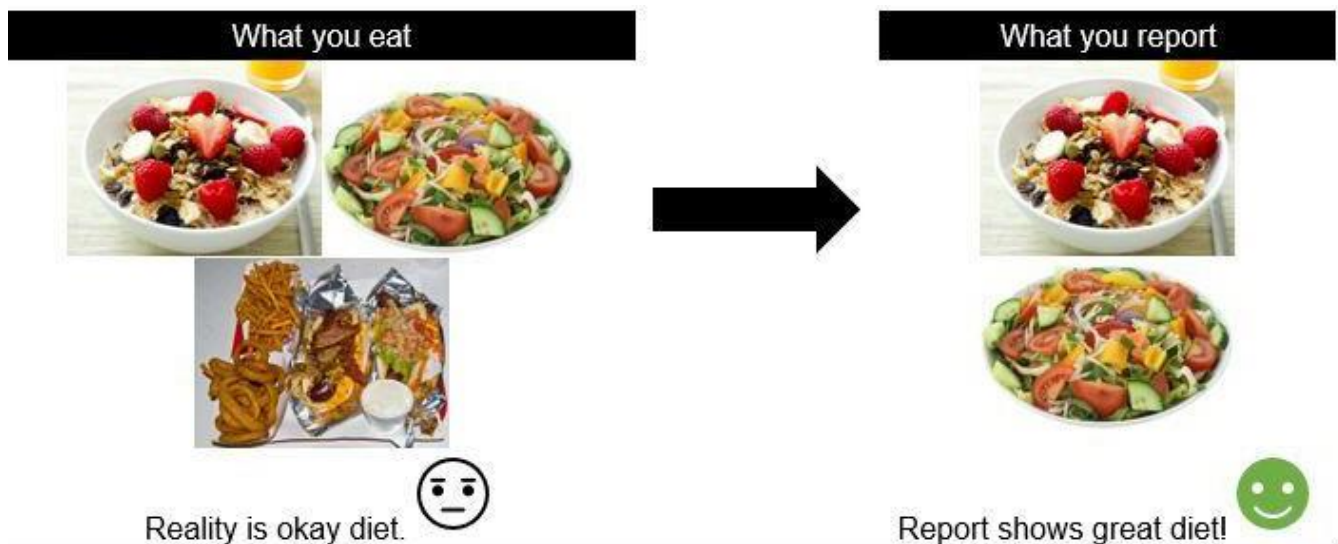
Part 3. From the in-person part, your personalised report will include:

- a. Your height, weight, and body mass index, along with recommended body mass index for optimal health.
- b. Your resting blood pressure and heart rate. If at risk, we will supply information about where to seek help for further follow-up and management.

Part 4. From the daily part during the exam period (optional), your report will include:

- a. The same summaries as for the first daily part (Part 2)
- b. A comparison of how your stress, feelings, sleep, and physical activity differ during the semester and during exam time.

Your personalised report is **based on the data you give us**. The more accurate and complete



your data, the more accurate and comprehensive your report. For this reason and to ensure our results are accurate, we ask that if you take part in the study, please try to answer everything truthfully and complete as many measures as possible. The example shows how **incomplete reporting can make your report and our recommendations inaccurate for you.**

### **Confidentiality**

Only authorised study personnel listed and approved by the Monash University Human Research Ethics Committee will have access to your data. Confidentiality is kept through rigorous passwords and encrypted connections to all online databases, and restricted access to and password protection of all local computers with any personally identifying information (such as your name, email, address).

The video recordings from Part 3 will be used for research purposes only and your identity will not be disclosed. No identifying information (e.g., name) will be included in the recordings, although you may be identifiable from the video recordings. Any publications or presentations that make use of your data will only be presented in aggregated summary form that will not name you or any other participants individually.

### **Storage of data**

The baseline survey data will be collected and stored on Qualtrics, with which Monash has a licensing agreement. Daily survey data and location data will be collected and securely stored on MetricWire, which meets stringent criteria for data security of health-related information. Dietary data will be collected and stored securely on computers managed by the United States National Cancer Institute (NCI). Online research data on both Qualtrics, MetricWire, and the NCI will be secured by passwords, and your data will not be identified by your actual identity, but a numeric code. Local computers that store raw data with personally identifiable information (e.g., names, date of birth, location data) will be password protected and use encryption. After seven years, we will de-identify the data by removing names, date of birth, addresses/contact details, and all location data. These personally identifying data will be completely erased and destroyed. The de-identified database will be made publicly available through Monash Figshare to maximize the potential benefit to the scientific and research community.

### **Use of data for other purposes**

Data collected for this study may be used for future research purposes. After seven years when all personally identifying information have been erased and completely destroyed from all online and local computers, a de-identified dataset will be made publicly available to researchers through Monash Figshare.

### **Results**

Approximately 12-months after the completion of the entire study, you will receive a short summary of the main findings from the study written in plain language (separate from the personalised report you will receive). Findings from this study will form the basis for Doctorate theses and will be submitted in aggregate form as research articles and conference presentations. If you would like any of these other reports or further information, you may

contact the principle investigator (Dr. Joshua Wiley) whose contact details are on the first page.

### **Complaints**

Should you have any concerns or complaints about the conduct of the project, you are welcome to contact the Executive Officer, Monash University Human Research Ethics (MUHREC) and reference **Project ID 17281**

Executive Officer

Monash University Human Research Ethics Committee (MUHREC)

Room 111, Chancellery Building E,

24 Sports Walk, Clayton Campus

Research Office

Monash University VIC 3800

Tel: +61 3 9905 2052

Email: [muhrec@monash.edu](mailto:muhrec@monash.edu)

Fax: +61 3 9905 3831

Thank you,

A handwritten signature in black ink that reads "Joshua Wiley". The signature is written in a cursive, flowing style.

**Dr. Joshua F. Wiley**