PARTICIPANT INFORMATION SHEET

Study title.

Heart Attack Alert System: Early Prediction for Patient Safety

Brief summary, including inclusion/exclusion criteria.

This study investigates the use of convolutional neural networks to predict heart attack risks using user-inputted health data (blood pressure, cholesterol) via a smartphone application. Participants ideally should have access to smartphones and be willing to provide personal health data. Those unwilling or unable to provide consent or health data are excluded.

Who is doing the research and why, and what is involved in the overall study?

I, Oluwadamilola Dammy Ademola, a student at Nottingham Trent University, am conducting this research to improve preventive healthcare practices by enabling users to manage their cardiac health using a smartphone app. The study involves collecting health data through the app, analysing it to predict heart health risks, and improving the app's predictive accuracy.

What would taking part involve for the participant, and what is the time commitment?

Participation involves downloading the application, inputting personal health data periodically, and optionally participating in follow-up surveys or interviews to provide feedback on the app's usability and effectiveness. The estimated time commitment is variable, depending on the participant's engagement level with the app and optional feedback mechanisms.

What are the possible benefits and disadvantages / risks of taking part?

Participants may benefit from personalised insights into their heart health, potentially helping them to prevent heart-related issues. There are no direct risks from participating, but participants should be aware of the confidentiality risks associated with providing personal health data.

What if something goes wrong?

If participants experience any distress or problems related to their participation in this study, they can contact the research supervisor, Arshad Sher. Participants are covered by Nottingham Trent University's indemnity for any injuries or issues directly resulting from participating in this research, under the standard terms and conditions of participating in academic research.

What will happen if I don't want to carry on with the study?

If at any point participants decide not to continue with the study, they can withdraw by notifying the research team. No reason for withdrawal is needed. Depending on whether the data has been anonymised, it may or may not be possible to withdraw their data from the study. This will be clarified at the start of participation.

How will my information be kept confidential?

Participant information will be handled with strict confidentiality and stored on secure university servers. Identifiable information will not be collected, and all data will be processed

anonymously to ensure privacy. Access to the data will be restricted to the research team and will be used solely for the purpose of this study. Data may be shared with academic peers but only in an anonymised and aggregated form that does not disclose participant identity.

Further supporting information (full guidance covering further supporting information)

Contacts

Sher, Arshad: arshad.sher@ntu.ac.uk

RA TEMPLATE

Activity Risk Assessment Form

Title of Activity/Procedure:	Public Opinion on Heart Attack and Failure Prediction App	Is this assessment confidential? ☒

Description of Activity (outline the task or experiment with words and formula if appropriate)
I will interview ten people on their heart health and the techniques used to forecast and monitor it.

Who is exposed to this activity (Check Appropriate Boxes or describe):				
STAFF ☐	POSTGRAD. ☐	UNDERGRAD. ☐	VISITORS ☒	OTHER:

Location of activity:	Frequency:	Duration:
Online		10 questions

Hazards To Health (for substances include volume, concentration or mass used):	Adverse Effects (injuries that could result from this activity – consider worst case scenario)	Control Measures in place:
N/A	N/A	Same questions asked to everyone.

If this activity involves chemicals, substances, high-risk work, or equipment; are separate risk assessments, COSHH substance assessments, or local codes of practice in place?			
Chemical: ☐	Biological/GM: ☐	Other: ☐	N/A ☒
List any documentation and where it can be found in this box. N/A			

If applicable, who will provide any necessary information, training, or supervision for this activity?
N/A

Emergency contact person (name and phone number):
N/A

Overall Risk Severity Calculation: (see below for notes)

Severity (S)	Probability (P)	Impact (I)	Score (SxPxI)
1	1	1	1

- **Score = 1-3** No further action required.
- **Score = 4-6** Identify additional control measures, reduce scale or substitute part of the activity for safer alternative. Work can proceed but action should be taken within a month, action should be described below.

- **Score = 7-9** Work should not start unless additional control measures are in place. If activity is already in progress, action should be taken ASAP to reduce the risk. Additional actions should be described below.
- **Score = 10+** Work must not start unless measures to reduce the risk are introduced.

Are the risks adequately controlled? YES / NO *(delete as appropriate)*
If not, specify action required below:

Action (Can include training):	**Timescale:**
N/A	**N/A**

Assessed By:	**Signed:**	**Date:**
***Supervisor: Sher, Arshad**	**Signed:**	**Date: 19/04/2024**

***Students should obtain a supervisor's signature to approve the assessment**

DECLARATION:
I have read this Risk assessment and understand the risks and the measures that must be taken to control such risks.

NAME	**SIGNATURE**	**DATE**
Oluwadamilola Dammy Ademola	Ademola	19/04/2024

Assessment must be reviewed annually		
REVIEWED BY	**SIGNATURE**	**DATE**

Scoring Risk Severity:
Consider all control measures in place and assess the risk associated with this task or activity.

Severity: 1= Injury could require first aid or could resulting brief absence from work.
2= Injury could result in hospital treatment or more than 3 days of work.
3= Injury could result in death or long-term illness.

Probability: 1= Low; accident or injury will seldom occur.
2= Medium; accident or injury could occur occasionally.
3= High; accident or injury will occur frequently.

Impact: 1= Individual; Only single individual likely to be affected.
2= Group; Activity puts individuals in the vicinity at risk (room or lab)
3= Wide; Activity puts whole building or wide area of people at risk.

INFORMED CONSENT FORM FOR PARTICIPANTS

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Study Title	Heart Attack Alert System: Early Prediction for Patient Safety
Name of Investigator(s)	Oluwadamilola Dammy Ademola

	Initial Each Box
1) I, [name of participant] agree to partake as a participant in the above study. I understand that my participation is voluntary and that I am free to withdraw without giving any reason and without my rights being affected	E.O
2) I understand from the participant information sheet (Dated… Version…), which I have read in full, and from my discussion(s) with [name of investigator] that this will involve me [provide details of investigation in this space, including the procedure involved and time commitment expected of participant]	E.O
3) It has also been explained to me by [name of investigator] that the risks and side effects that may result from my participation are (delete as appropriate) negligible following a risk assessment **OR** as follows: [provide details of any risks or side effects the participant may experience].	E.O
4) I confirm that I have had the opportunity to ask questions about the study and, where I have asked questions, these have been answered to my satisfaction.	E.O
5) I undertake to abide by university regulations and the advice of researchers regarding safety.	E.O
6) I understand that any personal/sensitive information I have provided will be treated as confidential and in accordance with university policies. Confidential data will only be handled by those working on the study. Anonymised data may be shared with third parties for wider dissemination.	E.O

Participant name and signature	Ej Obhayujie	Date	18/04/2024
Primary Researcher name and signature	Oluwadamilola Dammy Ademola	Date	18/04/2024

*When completed: 1 for participant; 1 for researcher site file.

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3) It has also been explained to me by [name of investigator] that the risks and side effects that may result from my participation are (delete as appropriate) negligible following a risk assessment **OR** as follows: [provide details of any risks or side effects the participant may experience].	F.M
4) I confirm that I have had the opportunity to ask questions about the study and, where I have asked questions, these have been answered to my satisfaction.	F.M
5) I undertake to abide by university regulations and the advice of researchers regarding safety.	F.M
6) I understand that any personal/sensitive information I have provided will be treated as confidential and in accordance with university policies. Confidential data will only be handled by those working on the study. Anonymised data may be shared with third parties for wider dissemination.	F.M

Participant name and signature	Faith Mbachu	Date	18/04/2024
Primary Researcher name and signature	Oluwadamilola Dammy Ademola	Date	18/04/2024

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3) It has also been explained to me by [name of investigator] that the risks and side effects that may result from my participation are (delete as appropriate) negligible following a risk assessment **OR** as follows: [provide details of any risks or side effects the participant may experience].	D.A
4) I confirm that I have had the opportunity to ask questions about the study and, where I have asked questions, these have been answered to my satisfaction.	D.A
5) I undertake to abide by university regulations and the advice of researchers regarding safety.	D.A
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Participant name and signature	Daniella Ademola	Date	18/04/2024
Primary Researcher name and signature	Oluwadamilola Dammy Ademola	Date	18/04/2024

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Name of Investigator(s)	Oluwadamilola Dammy Ademola

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Participant name and signature	Jared Awiti	Date	18/04/2024
Primary Researcher name and signature	Oluwadamilola Dammy Ademola	Date	18/04/2024

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Nottingham Trent University

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Participant name and signature		Date	
Independent witness name and signature		Date	
Primary Researcher name and signature		Date	

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Participant name and signature	Daniel Muse	Date	18/04/2024
Primary Researcher name and signature	Oluwadamilola Dammy Ademola	Date	18/04/2024

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Participant name and signature	Anthony Ukome	Date	18/04/2024
Primary Researcher name and signature	Oluwadamilola Dammy Ademola	Date	18/04/2024

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Participant name and signature	Junior Samuel	Date	18/04/2024
Primary Researcher name and signature	Oluwadamilola Dammy Ademola	Date	18/04/2024

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3) It has also been explained to me by [name of investigator] that the risks and side effects that may result from my participation are (delete as appropriate) negligible following a risk assessment **OR** as follows: [provide details of any risks or side effects the participant may experience].	W.B
4) I confirm that I have had the opportunity to ask questions about the study and, where I have asked questions, these have been answered to my satisfaction.	W.B
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Participant name and signature	William Banagala	Date	18/04/2024
Primary Researcher name and signature	Oluwadamilola Dammy Ademola	Date	18/04/2024

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3) It has also been explained to me by [name of investigator] that the risks and side effects that may result from my participation are (delete as appropriate) negligible following a risk assessment **OR** as follows: [provide details of any risks or side effects the participant may experience].	H.N
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Participant name and signature	Harrison Ndugba	Date	18/04/2024
Primary Researcher name and signature	Oluwadamilola Dammy Ademola	Date	18/04/2024

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