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Exploring the experience of children who have provided cardiopulmonary resuscitation (CPR) and the impact of CPR training

Submission date	**Recruitment status**	[_] Prospectively registered
22/01/2024	No longer recruiting	[X] Protocol
Registration date	**Overall study status**	[_] Statistical analysis plan
20/02/2024	Completed	[_] Results
Last Edited	**Condition category**	[_] Individual participant data
08/01/2025	Other	[_] Record updated in last year

Plain English summary of protocol

Background and study aims

There is an absence of research on children and young people's experiences of providing cardiopulmonary resuscitation (CPR), despite the recent inclusion of CPR training in the secondary school curriculum in England. Therefore, this study seeks to increase our understanding of what it is like for those young people who try to help someone having a cardiac arrest outside of the hospital setting. With a focus on mental well-being, the aim is to understand the emotional and relationship impacts on children and young people who provide CPR. The effectiveness of CPR training and the support offered to young people who carry out CPR in a real-life emergency will be explored. Recognising the potential for psychological distress, this project seeks to contribute evidence for effective prevention strategies.

Who can participate?

Children and young people aged between 11-23 years old who lived in England when they provided CPR (when aged between 11-18 years old)

In addition, the cardiac arrest event that the young person responded to must have happened in the UK. If the young person intervened in the cardiac arrest as part of a health-related work or training role, they will not be able to take part, because they may have processed the incident differently and had different support available.

What does the study involve?

The study team will interview young people who have been involved in a resuscitation attempt (cardiopulmonary resuscitation or CPR) and ask about:

- Their experience of this event;
- The support – formal and informal – they had (or would have liked to have) following the event;
- Their feelings about the possibility of helping again in a future resuscitation attempt;
- Any CPR training that they underwent before the event.

The researchers will look carefully at what participants told them to work out what the key

messages are. To do this, they will use a method called reflexive thematic analysis. The aim is to create a greater understanding of what kind of support should be offered to those who carry out CPR in the real world.

What are the possible benefits and risks of participating?
No direct benefits are expected from taking part, but participants will receive a £25 voucher to thank them for their contribution.

This could be a challenging topic to discuss and the questions participants are asked may trigger difficult and upsetting thoughts and feelings. This risk is explained in the study information leaflets for young people and parents, and there is a plan for supporting any young people who become upset during or after their interview.

Where is the study run from?
The study is being led by researchers at King's College London. Other members of the research team include researchers at The University of Warwick and The University of Oxford, and members of the public who have relevant experience (for example, they may have had a cardiac arrest themselves, witnessed one, and been involved in delivering CPR training in schools or with supporting survivors and co-survivors of cardiac arrest).

When is the study starting and how long is it expected to run for?
September 2023 to December 2024

Who is funding the study?
The National Institute for Health and Care Research (NIHR, ref: NIHR204360) is funding this project through its Research for Patient Benefit programme.

Who is the main contact?
Dr Claire Hawkes and Dr Michael Smith are leading this study. Dr Freya Brown is the lead researcher on this study. You can contact them at childcprstudy@kcl.ac.uk.

Contact information

Type(s)
Scientific, Principal investigator

Contact name
Dr Claire Hawkes

ORCID ID
https://orcid.org/0000-0001-8236-3558

Contact details
Joint Principal Investigator
King's College London, James Clerk Maxwell Building, 57 Waterloo Road
London
United Kingdom
SE1 8WA
None provided
claire.hawkes@kcl.ac.uk

Type(s)
Scientific, Principal investigator

Contact name
Dr Michael Smith

Contact details
Joint Principal Investigator
King’s College London, James Clerk Maxwell Building, 57 Waterloo Road
London
United Kingdom
SE1 8WA
None provided
michael.smith83@nhs.net

Type(s)
Public, Scientific

Contact name
Dr Freya Brown

ORCID ID
https://orcid.org/0000-0003-3516-8690

Contact details
Research Associate
King’s College London, James Clerk Maxwell Building, 57 Waterloo Road
London
United Kingdom
SE1 8WA
+44 (0)20 78482303
childcprstudy@kcl.ac.uk

Additional identifiers

Integrated Research Application System (IRAS)
335871

Central Portfolio Management System (CPMS)
59124

Study information

Scientific Title
Exploring the experience of children who have provided cardiopulmonary resuscitation (CPR) and the impact of CPR training

Acronym
Child CPR Study

Study objectives
Qualitative methodology is being used to explore, and better understand the experiences of children and young people who try to resuscitate someone having a cardiac arrest and how well prior cardiopulmonary resuscitation (CPR) training prepared them for this.

Ethics approval required
Ethics approval required

Ethics approval(s)
Approved 22/11/2023, King's College London Research Ethics Committee (3rd Floor, 5-11 Lavington Street, London, SE1 0NZ, United Kingdom; None provided; rec@kcl.ac.uk), ref: HR/DP-23/24-34646

Primary study design
Observational

Study design
Observational

Study type(s)
Treatment

Health condition(s) or problem(s) studied
Experiences of young people who have provided CPR in the community: Generic health relevance

Interventions
This study will explore the experiences of young people who have provided CPR in the community, and this learning will inform CPR training for children and young people and the support offered to those who perform CPR during a real-life emergency. Therefore, this preliminary study (because there is no research in this area) could inform the development of an intervention in the future.

Young people (11-23 years of age) who agree to participate and, if <16 years of age, whose parents have consented for them to do so, will be recruited to the study. Participants will be invited to a one-to-one interview with the researcher. Interviews will last approximately one hour, but the young person will be able to stop the interview at any time. With consent, the interview will be audio-recorded. Most interviews are expected to be face-to-face. However, the option of virtual interviews (via MS Teams) will be offered if the young person and parent have a strong preference for this.

If the young person still attends school, the researcher will ask for their and their parent's verbal consent to liaise with the school and, if possible, to arrange for the interview to take place on school premises. Again, with the agreement of the young person and parent, the researcher will link in with the school support services so that the young person can access support in school should they become upset during or after the interview. For young people who are not still at school, or who do not want their interview to take place at school, the researcher will liaise with them (and their parents if <16 years old) to arrange another convenient location for their interview, where there will be access to a private room.

Discussing a CPR attempt could be upsetting for the young person. The young person will be able to have their parent or a trusted member of school staff in the room with them during the

interview if they wish. The researcher will not put pressure on the young person to talk about anything they do not feel comfortable sharing. The researcher will stop the interview if the young person becomes upset to check whether they are OK to continue or wish to stop. The young person will also be able to stop the interview at any time. The researcher will assess the situation and signpost to support services that the young person can access in their local area, including school support services if still attending school, university support services, GP, helplines etc. Before, leaving, the researcher will check that the young person is OK, and that they (and their parent) know how to access support should they need it. If any urgent mental health concerns arise, the researcher will alert emergency services in line with our study safeguarding protocol. Finally, the researcher will arrange a follow-up call with all participants (and parents if <16 years old), to take place approximately two weeks after their interview. This will be an opportunity for the researcher to check on the participant's well-being and, if necessary, direct them to sources of support.

At the study's end, the research team will hold an online event to present and discuss findings with stakeholders. A written summary of findings and stakeholder event materials will be available on our website and will include a video animation of key findings. If the young person /parent consents to be contacted about future related research with Ethics Committee approval, they may be contacted again by King's College London researchers after the study ends, for this purpose only.

Each participant will be interviewed once between 3 months and 5 years after they were involved in providing CPR to someone having a cardiac arrest. Qualitative semi-structured interviews will be used to explore the following with participating young people:
- What they were thinking and feeling during and after this event;
- What support they had after the event and what support they would have liked;
- What was helpful and unhelpful during and after the event;
- What impact this experience had on their mental health and relationships with family, friends, teachers, and others;
- What CPR training they had undergone before the event, if any;
- How well they think this CPR training prepared them for performing CPR in a real-life emergency situation;
- Their views on what should be included in CPR training for children and young people.

The data collection time-point will be the time of the interview, which will be between 3 months and 5 years after the young person's involvement in a CPR attempt. The young person will also be asked to reflect on their experiences at the time of any CPR training they underwent, the time of the CPR attempt, immediately after the CPR attempt, and at any other significant time points for them between the CPR attempt and the interview. Reflexive thematic analysis will be used to analyse the data and generate theories relating to best practices in the provision of CPR training for children and young people and the support offered to those who attempt CPR in a real-life emergency situation.

Intervention Type
Other

Phase
Not Specified

Primary outcome(s)

Experiences of young people will be measured using data recorded in qualitative semi-structured interviews at a single time point between 3 months and 5 years after they were involved in providing CPR to someone having a cardiac arrest

Key secondary outcome(s)
There are no secondary outcome measures

Completion date
31/12/2024

Eligibility

Key inclusion criteria
1. Young people who live in England at the time of recruitment
2. Young people who are between 11-23 years old at the time of recruitment
3. Young people who were between 11-18 years old when they were involved in providing CPR in the community
4. Young people who attempted CPR in the community between 3 months and 5 years before recruitment
5. The out-of-hospital cardiac arrest which the participant was involved in occurred in the UK
6. Young people proficient in English can participate in an interview

Participant type(s)
Healthy volunteer

Healthy volunteers allowed
No

Age group
Mixed

Lower age limit
11 Years

Upper age limit
23 Years

Sex
All

Key exclusion criteria
1. Young people who intervened in cardiac arrest as part of a health-related work or training role
2. Young people who were not resident in England at the time of the event as their post-event experiences potentially occurred within a different culture with different support mechanisms available
3. Young people ≥16 years old who are not able to give informed consent
4. Young people <16 years old whose parent is not able, or willing to give informed consent

Date of first enrolment

22/11/2023

Date of final enrolment
31/12/2024

Locations

Countries of recruitment
United Kingdom

England

Study participating centre
Community organisations
Community organisations across England, such as schools and relevant charities, will be asked to help identify and share study information with potentially eligible young people (or parents if the young person is <16 years old)
United Kingdom
-

Sponsor information

Organisation
King's College London

ROR
https://ror.org/0220mzb33

Funder(s)

Funder type
Government

Funder Name
Research for Patient Benefit Programme

Alternative Name(s)
NIHR Research for Patient Benefit Programme, Research for Patient Benefit (RfPB), The NIHR Research for Patient Benefit (RfPB), RfPB

Funding Body Type
Government organisation

Funding Body Subtype
National government

Location
United Kingdom

Results and Publications

Individual participant data (IPD) sharing plan
The datasets generated during and/or analysed during the current study will be stored in a non-publicly available repository. Pseudonymised transcripts will be archived in electronic format for 10 years in the KCL Digital Records Management Service, which provides central storage for records that need to be archived securely for a set period.

The datasets generated during and/or analysed during the current study are not expected to be made available because of the nature of the qualitative data being collected, in addition to the likelihood that there will be a relatively small number of eligible young people in England, meaning that – even when thoroughly pseudonymised – it will not be possible to guarantee anonymity.

IPD sharing plan summary
Stored in non-publicly available repository, Not expected to be made available

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Protocol file	version 3.1	02/04/2024	06/08/2024	No	No
Study website	Study website	11/11/2025	11/11/2025	No	Yes