Methodological Considerations in Participatory Research with Adolescents

Frequently, there is insufficient guidance, or practical and effective solutions, to safely collect data directly or indirectly from children within a digital world.

> G. Berman and K. Albright, *Children and the Data Cycle:*
> *Rights and Ethics in a Big Data World*

Chapter Highlights

1. The issue of power between researchers and adolescents should be given careful consideration.
2. The use of language will have an impact on adolescent recruitment and on every part of the research process up to dissemination.
3. Strategies to ensure participants' engagement over time are necessary.
4. Adolescents can be involved in different parts of the research.
5. Successful participatory research requires a suitable setting and a research team sensitive enough to the needs and lives of adolescents.

This chapter is focused on challenges that researchers may face when adopting a participatory approach as an epistemological stance and working with participatory research methods. These potential issues are presented with the objective of enabling early reflection and stopping these issues from ending up as real ones during a research study. The potential issues are taken from empirical research and solutions or alternatives are provided so that research protocols and proposals already include plans to mitigate and prevent these issues from emerging and affecting the research process but, most importantly, to safeguard research participants and researchers themselves.

2.1 The Issue of Power

I have named this section the 'issue of power' as I think it is a complex and ongoing aspect of participatory research with adolescents. The limits of

power sharing with adolescents is controversial in participatory research. Participatory research in general means adults hand over power to adolescents to make decisions in the research study. How much power to give and in which circumstances should it be given requires careful thought.

Rodriguez and Brown (2009) believe power is not always oppressive, that power can be *used with* rather than *over* adolescents by building collaboration between participants and researchers in rigorous, engaging and inquiry-based learning. This use of power, according to Rodriguez and Brown (2009), is necessary and educational in the context of research with adolescents.

Mitra and McCormick (2017) state that there is often an assumption that giving adolescents power means adults lose it. Instead, it has been found that empowerment should be viewed from a perspective of abundance, not scarcity: the more empowered adults are, the more they will enable power in others, adolescents in this case. Adolescents' empowerment can strengthen the agency and empowerment of adults (Mitra & McCormick, 2017). Strong collaboration between researchers and adolescents enables both to achieve their goals and purposes (Vyas et al., 2022). Researchers can deliver more accurate research findings which can impact positively on future change in policy. Changes in policy can also have a positive impact on the lives of adolescents (Vyas et al., 2022). According to Chen et al. (2010), adults have roles and responsibilities in youth-led research and 'it is not about getting out of the way or giving up their power, rather it is about balancing and negotiating multiple roles and constantly adapting them to new situations' (p. 235). Adolescents benefit from participating in the design and critique of policies and interventions that affect their lives. At the same time, adults benefit by recognising the skills and expertise of adolescents in creating policies and interventions that are relevant and appropriate for youth (Wang, 2006) and therefore more successful, beneficial and cost effective.

Holland et al. (2010) defined power as 'dynamic and relational', beyond the dichotomy of researcher as the powerful one and participant as powerless. Participation is not static. As the research develops, Flicker et al. (2008) suggested that adolescents may demand more control and participation as they develop trust with the researchers as well as in their own skills and abilities. Power relations in research are shaped by the status of both the researcher and the adolescents (Healy, 2021). Power relations can be reinforced by institutional constraints regarding for example funding and publication of findings which might be very specific or restrictive for a specific age or social class (Wrede-Jäntti et al., 2021).

Theorists such as Olesen (2021), however, consider that data production will never be unaffected by power relationships, as the responsibility for analysis and interpretation of results falls on the researchers, independent of how close researchers and participants worked in producing the data. There is a fundamental imbalance between researchers and participants (Olesen, 2021), they are not equal. According to Aldana and Richards-Schuster (2021) there is a need to recognise power, bias and privilege within collaborative research.

According to Ozer (2016), youth-led participatory action research (YPAR) is an approach where power and equity are considered with intention regarding processes and outcomes. Power sharing is essential in the definition of the problem, research design, interpretation of data and actions. High-quality implementation of YPAR requires ongoing and intentional processes to build trust and balance power sharing in decision-making between adolescents and adult facilitators in different phases of the project (Gibbs et al., 2020). Youth researchers should share ownership over key aspects of the research design, data interpretation and the strategies to address the problem (Ozer, 2016).

Ethics is another important element interrelated with power. Ethical practices require constant attention and reflection to handle the inevitable power dynamics (Wulf-Andersen et al., 2021b). Sharing information and regular dialogue is essential to make the needed adjustments during the research process. It is a dynamic process (Krane et al., 2021). Power, therefore, is dynamic; involving adolescents in research is a complex, diverse and non-static process that fluctuates between different levels of power (Krane et al., 2021).

The reflexive approach (Healy, 2021) enables researchers to actively seek more inclusive research practices while recognising how the researcher influences who and what is included in the research. Anselma et al. (2020) suggest it is important to reflect constantly with participants on the aims of the study and together create a mutual understanding of its responsibilities and rationale.

There is a need to extend the definitions and boundaries of what research is, in order to include the wide diversity of adolescents and the contexts in which research currently takes place (Healy, 2021). According to Anselma et al. (2020), sharing power may not be possible for every research decision. On occasions, researchers must follow guidelines to ensure scientific integrity and methodological quality as well as follow the principles of any theoretical principles underpinning the study (Anselma et al., 2020).

2.2   Diversity and Inclusion

Providing equal opportunities for all adolescents who want to engage should be part of good practice in participatory research. This, however, is not always achieved. The participation approach is generally practised by adolescents who have volunteered or been selected by adult facilitators (Ozer & Douglas, 2013). These adolescents probably have an existing interest and the potential to become researchers (Krane et al., 2021; Ozer & Douglas, 2013). Involving a wide variety of adolescents can be time-consuming, challenging to manage and requires resources (Krane et al., 2021). Understanding, therefore, that you will never be able to capture all perspectives, the goal should be to include some adolescent voices that can help to contextualise and generate knowledge in a co-creational process (Krane et al., 2021).

Diversity in research is very important. Oridota et al. (2023) found in their systematic review on participatory action research with children and adolescents that only 27 per cent of studies included participants from developing countries. Shortt and Ross (2021) recruited participants from their schools but explicitly requested that these were:

1. students who do not get the opportunity to become involved in projects
2. young people with additional support needs
3. from different genders
4. from different ethnic groups.

Researchers should think about how best to include those adolescents who may struggle to join a group via means of an advocate or using video conference (Lightfoot & Sloper, 2002). Petrie et al. (2006) consider that involving a wide spectrum of adolescents in an effective manner can be difficult, particularly those who may have communication impairments, whose first language is not English (or the research language), whose legal status is in process and those who may be vulnerable and unsettled due to their ethnic background, for example. Responding to these issues means that the most effective methodologies may be developed together with participants while the research is in progress, meaning the study will not be defined at the outset and requires resources and willingness from researchers (Petrie et al., 2006).

Harper and Carver (1999) identified some recommendations provided by adolescents themselves on how to engage adolescents with high-risk

behaviours such as injection and drug use in research and programme activities. These recommendations are:

1. Programme activities should be easily accessible to out of school adolescents and those experiencing high-risk living conditions and behaviours.
2. Activities should be carried out away from schools.
3. All aspects of the research and programmes should be confidential.
4. Programme and research communications should be delivered in the 'language' (street talk) of adolescents themselves.
5. Research and programme activities should be culturally sensitive.
6. All materials must be presented in a 'gang-neutral' manner.

Being fair and representative is important for adolescents. Stafford et al. (2003) consulted children and adolescents who said they wished consultations were fair, representative and inclusive. This meant consulting with large numbers of different kinds of adolescents, being picked randomly instead of at the discretion of adults, involving whole schools in consultation, publicly recruiting adolescents to encourage participation (Stafford et al., 2003). Adolescents highlighted the need to be consulted by those who genuinely wanted to hear all their views and take them on board and not just those that fit their agendas. Listening to their views should also include acting on them and they regarded participation as their right and were willing to engage, if it served a useful purpose (Stafford et al., 2003).

Even though researchers wish to be inclusive, recruitment of adolescent research participants can be challenging. According to Van Staa et al. (2009), participatory approaches do not necessarily facilitate recruitment. Adolescents should be given a choice about their level of participation as it should not be assumed that 'more is always better' (Van Staa et al., 2009). Recruitment can be challenging as well due to busy school schedules, exams, geographical location and transportation needs of adolescents with disabilities (Van Staa et al., 2009).

Recruitment can be supported by familiar care providers, for example nurses (Van Staa et al., 2009) and hospital consultants (Beresford & Sloper, 2003), or carried out by investigators (Grady et al., 2014) in a snowballing manner. Beresford and Sloper (2003) also used leaflets for recruitment but had different versions for adults and older and younger adolescents. Leaflets can be distributed, for example, via mental health organisations, high schools, colleges and universities (Ito-Jaeger et al., 2022). Due to the design of their study, Bidargaddi et al. (2017) also advertised the study through a recruitment agency of clinical trials, schools,

youth organisations, community-based organisations, local councils. Other methods used to recruit participants have been websites (Van Staa et al. 2009) and paid advertising on social media such as Twitter, YouTube and Google Ads (Bidargaddi et al., 2017). The keywords for these advertisements were selected by adolescent participants themselves. Using a variety of methods may help to target and include a wider variety of adolescents into the study.

2.2.1   Language

Language is important in research, as the selection of it can have a different impact on the potential participants throughout the research, from participant recruitment to dissemination. The way participants are defined, described and labelled will resonate, or not, with who they are and how they perceive and describe themselves. It may provide a sense of belonging that interested them to be involved in your research, instead of exclusion and lack of identification where they decide not to engage because it is not relevant or interesting to them. Mallan and Singh (2010) described adolescents as 'tech-savvy'; however, this assumption did not necessarily mean that they were interested in participating in the online research. To support participant recruitment, Mallan and Singh (2010) produced a video which explored the concept of tech-savvy by incorporating different media such as images, song lyrics, videos, articles and characters from adolescent fiction. The video also had a fast pace, a strong musical score and quickly changing imagery (Mallan & Singh, 2010). The video, however, even if it appealed to adolescents, did not mean adolescents understood or perceived themselves as tech-savvy. This was confirmed by the research findings where participants reported that their knowledge of the term was low, and 60 per cent of the 57 participants who took part in the research did not consider the term appropriate to describe themselves (Mallan & Singh, 2010). The researchers interpreted this as participants' reluctance to see themselves in 'adult society's terms' (Mallan & Singh, 2010). Adolescents should probably be consulted on the adequacy of terminology and what language would be more appropriate to use to refer to them. More than adolescent reluctance, researchers should respect adolescents and spend time, energy and resources getting to know them before attempting to engage them in a research study.

Academic language has been described as an obstacle to authentic partnership and collaboration (Krane et al., 2021). Academic language and complex terminology may be difficult for adolescents, and for anyone

outside the specific discipline, to understand. Consequently, adolescents may lose interest or decide to not engage at all.

2.2.2 Acknowledge the Developmental Needs and Capabilities of Adolescents

Researchers should be aware and consider that adolescents (depending on their age and other factors) will have limited autonomy, which will affect their capacity to attend research-related activities (Merves et al., 2015). Adolescents may have limited control over their own time and schedule (Merves et al., 2015). One strategy used by Chen et al. (2010) in their study involving adolescent girls was to engage them according to their interest and expertise. Participants interested in data oversaw creating charts in Excel. Those girls who enjoyed writing completed the introduction and the overview of the project. There was a section on photography findings, so adolescents interested in editing photos and writing captions oversaw that (Chen et al., 2010). Overall, research with adolescents should focus on creating an environment where participants can develop their current abilities and continue to grow (Chen et al., 2010) and develop their skills.

Studies have identified the need to have a combination of ages in adolescent advisory boards as this can lead to a variety of opinions and strong ties with different groups (Oridota et al., 2023). Participation of younger groups is limited. This age group is underrepresented in research (Shamrova & Cummings, 2017). Including younger adolescents can make them feel appreciated when their input is genuinely valued and they are treated as equals (Oridota et al., 2023).

2.3 Participant Retention

Keeping participants engaged in a research study can be challenging. Age-appropriate designs and topics can be key for ensuring permanence but also giving feedback and continuing to provide activities and ways for them to engage throughout the research process can be useful strategies. Trained participants may outgrow the study and new participants may need to be recruited and trained (Anselma et al., 2020). This may require additional money and time to be invested, which should be included in the research plan otherwise it may mean delays in the overall research process.

Research studies may be subject to funding applications. According to Anselma et al. (2020), these processes can be lengthy and uncertain.

For this reason, engaging participants in the initial design of the study may be challenging when there is no certainty of the funding outcome. There is a risk, therefore, of losing an opportunity of mutual understanding between the researchers and participants early on about possibilities and boundaries (Anselma et al., 2020). Ballonoff et al. (2006) provided some ideas on how to support continued adolescent engagement:

1. Have a clear vision and a timeline of the full scope of the project.
2. Provide opportunities for adolescents to present their ideas and get feedback and encouragement of their content and process.
3. Provide opportunities for adolescents to reflect, initiate and engage in social action.
4. Network with larger social actions and movement organisations to provide support for action and enable adolescents to focus on the 'bigger picture'.

2.3.1 Facilitating Engagement and Research Retention

Training can be a way to support retention. Participants may benefit from developing their capacity for participation through training (Shamrova & Cummings, 2017) and these skills may be transferable to other aspects of their lives. Adolescents should be trained if the research involves equipment of any kind (e.g. photo and video cameras) as this will enable them to capture and express their voice in their own terms. Adolescents need to be trained in and informed about the rights and responsibilities of research involving human subjects, particularly the importance of confidentiality (Powers & Tiffany, 2006).

Shortt and Ross (2021) first worked with adolescent researchers to understand their base knowledge of the research topic, for example their ideas about health and well-being. One of the potential limitations of this method is that researchers used flash cards with determinants of health identified by researchers from topics from the literature and not from the adolescents themselves. Even though the adolescents were encouraged to bring their own concepts to the discussion, this did not happen (Shortt & Ross, 2021). Even though they stratified the concepts according to how important these were to them, the set of determinants may not have captured adolescents' views comprehensively. Some studies, such as TEEN HEED (Oridota et al., 2023), included training for adolescents before their involvement in the studies. Components of this training included:

1. team building
2. group facilitation skills
3. reviewing the workshop/intervention curriculum
4. skills for asking questions: ensuring participants provided open responses and knew how to avoid leading questions
5. skills to identify analytical skills
6. identifying and reducing bias in analysis and data collection.

Different strategies and activities were used with adolescents in training which were games, play and mix-match activities (Shortt & Ross, 2021). Chen et al. (2010) used interactive and hands-on activities, practical exercises, discussions and role play to train their research participants in research, training and photography skills as well as research ethics and protecting participant confidentiality. Van Staa et al. (2009) organised interview technique training with a national newspaper. Adolescents were trained for three hours on sample questions. They also carried out role play with hospital staff to evaluate their interviewing technique (Van Staa et al., 2009).

Training, until now, has been described as delivered from adults to adolescents. However, adolescents can also be involved in training adults on how to successfully engage adolescents in participatory research. Chen et al. (2010) described how girls, because of their involvement in the study, taught adult staff in the organisation involved in the research how to engage girls in participatory evaluation.

Training, however, may not be enough. Dunn and Mellor (2017), for example, trained adolescents to carry out literature reviews; however, this training was never put in practice. According to Dunn and Mellor (2017), smaller group sessions, extra time and extra budget were needed to turn this training into practice but there was no capacity for the research to achieve this.

Another way to engage adolescents in research is by having different roles for them. Involving adolescents in varying roles and stages of a research process is a crucial component of participatory approaches (Oridota et al., 2023; Winton, 2007), particularly the inclusion of adolescents in conducting the research and analysing results. Participation must be sustained throughout the research process for the research to be considered truly participatory (Winton, 2007). The challenge is, however, that adolescents and younger research participants tend to be involved at later stages of research and are underrepresented in the early stages of design and data analysis (Freire et al., 2022; Shamrova & Cummings, 2017).

Shortt and Ross (2021) carried out a study where young people ranging from 10 to 18 years of age were the researchers who designed the themes,

methods and conducted the research. According to Powers and Tiffany (2006), adolescents may gain the trust of other adolescents more easily than adults and may gather data that is valid and reliable.

Valdez et al. (2021) had an adolescent coalition group. This group approved the questions of the survey used in the study. Adolescents contributed to the regional, cultural and linguistic expertise to develop a community- and adolescent-informed instrument. Coad and Coad (2008) included an advisory board of 12 participants with diverse ethnic origins. The researchers met with the group and explained the need for the study, the roles for adults and children, time commitment, foreseen benefits and recognition for participation (vouchers). Participants were trained at a time convenient for them (e.g. after school or college for six weeks) and at a location and pace suitable for the needs and abilities of young people. The advisory group supported the design, pilot and verification of the interview schedule. Then it contributed to developing the questionnaire used in the study. A pilot study was carried out to validate the scale. Livingood et al. (2017) engaged adolescents through participatory research methods to develop a digital communication intervention to reduce adolescent obesity. As part of their methodology, they included an adolescent advisory board over the three years of the research. Adolescents were asked to attend a two-hour-long meeting bimonthly. One of the challenges, however, is adolescents ageing out or dropping out of a longitudinal project. Adolescents developed questions and probes together with the research team and led the focus groups themselves.

Petrie et al. (2006) also had an advisory board that had specific roles including:

1. sensitising the research team of local youth cultures
2. providing advice on local conditions and where to select research participants
3. drafting information leaflets
4. testing the interview schedule
5. supporting the development of interview schedules
6. acting as co-researchers
7. carrying out data validation and analysis
8. disseminating findings.

All these roles were on a voluntary basis; adolescents could take part in one or several of these roles if they wished to do so.

Maglajlic and RTK PAR UNICEF BiH Team (2004) had a research group in each country where the research study was conducted. The adolescent

Table 2.1 *Participant roles*

YPAR group	Children researchers and academic researchers
Action group	Consisted of the YPAR groups of children recruited in every school 6–8 children
	Met weekly or every two weeks, for 45–60 minutes
Planning group	Researchers, local government managers and members of the YPAR group
Youth Council	This group started in year 3 and consisted of representatives of three schools; it was more focused on community actions than school-based actions

members decided in conjunction with the research team the research topic, how to carry out the research, when and with whom was the research going to be conducted and the data analysis. They also worked on proposals to develop the strategy which was the main objective of the study.

Anselma et al. (2020) included children, in this case, through several stages of the study, in a longitudinal evaluation; however, the involvement of participants can work for adolescents as well. Participants were involved as partners from the research design stage, for example carrying out a needs assessment to identify two needs they had, which became the research aims (Anselma et al., 2020). Participants were engaged in different roles (Table 2.1).

One important consideration by Anselma et al. (2020) was to allow schools to make their own decisions about engaging participants. Some schools allowed all participants to engage in the research, whereas others selected those who could miss academic time without having a negative impact on their studies. Other schools allowed members of the student council to join. This selection process has implications for participation and may introduce bias in the participants; however, it also engaged schools that may have otherwise not engaged at all and the views of all these participants would have been excluded from the beginning.

Participants in this study were trained in research skills that they used to develop, implement and evaluate throughout the research process.

1. Action teams conducted research to validate the findings of the needs assessment.
2. Programme goals and research objectives were developed.
3. Participants selected the best ideas by voting and were involved in implementation plans.
4. At the end of the first year, these implementation plans were pilot tested.

Participant-driven recruitment is a peer-based method to recruit members of hidden and marginalised populations (Powers & Tiffany, 2006). Valdez et al. (2021) included an adolescent-led recruitment strategy. Adolescents recommended that the recruitment messages should be very clear about the benefits of adolescent participation. The youth coalition also provided insights into the general culture of the research participants, who to partner with and how to incentivise participation. Adolescents emphasised the need for participant confidentiality and safety (Valdez et al., 2021). Merves et al. (2015) consider the importance of placing the responsibility of engagement in the study on the adolescents. They put study information in youth-friendly spaces, but the adolescents had to contact the research team themselves. This exercise was done purposefully to build competency, and it increased the likelihood of engagement and commitment to the study.

De Winter and Noom (2003) involved adolescents in the design of a draft interview and they provided feedback on content and wording. The research team presented a draft protocol of the questions and adolescents provided feedback through in small groups; after that, the group provided additional feedback through email.

Studies need to ensure that they have age-appropriate data collection tools; however, this should be rigorous as well to ensure that the research findings are reliable (Shamrova & Cummings, 2017). For example, Chen et al. (2010) carried out data collection using adolescents themselves working together, in pairs, to support each other during the process. The research team met regularly with participants to evaluate their progress and share any experiences. The research team was still in charge of organising day-to-day activities, administration and coordination of research activities, for example coordinating data collection. Adolescents wanted to be involved in the design and wording of research questionnaires (Stafford et al., 2003; Van Staa et al., 2009).

Not involving adolescents in data analysis is a way to disregard adolescents' knowledge and meaning-making, replacing them with an adult interpretation which may not be accurate (Shamrova & Cummings, 2017). Involving adolescents in data collection, however, needs to be carefully considered. Very sensitive issues may not be suitable for certain ages, and, in some cases, these might negatively impact the data collection. To ensure the quality and validity of the data, adolescents should be involved in data collection training before carrying out the fieldwork. In some cases, data collected from adolescents by other adolescents may reduce anxiety and increase accuracy of results. Oridota et al. (2023), for

example, collected data on blood pressure which can be affected by participant stress; it may be more accurate when these external factors are controlled and reduced (Oridota et al., 2023).

To ensure the meaningfulness of participation, adolescents should be included in data analysis. This can be done with different techniques, for example reflection workshops that provide a space for children to voice their opinions on the findings (Shamrova & Cummings, 2017). Involvement in data analysis prevents researchers from drawing quick, shallow and naïve conclusions from the data (Krane et al., 2021). Holland et al. (2010) shared key themes with adolescents after a first level of analysis was carried out. They used photographs and diagrams as well as verbal or written media depending on the needs of each participant. It is important to consider that not all the adolescents will have the same reaction and interaction with the data. Holland et al. (2010) described that some adolescents were interested and engaged in discussion, but some had a passive response and no engagement. Some adolescents were also bored when reading texts. Alternatively, Holland et al. (2010) provided recorded transcripts that adolescents could listen to.

Adolescents were invited to comment on draft versions of the analysis of the research transcripts (Van Staa et al., 2009). This was done through email (Van Staa et al., 2009). Flicker (2008) engaged adolescents who were part of the research working group in the analysis. All identifiers were removed from the transcripts and a coding scheme was designed collaboratively. Adolescents were trained in Nud*ist, a qualitative data management software. The group met once a week over four months. In these meetings, the group reviewed worksheets and discussed main themes, and the collective notes were recorded in summary tables (Flicker, 2008).

Coad and Coad (2008) provided adolescents with an anonymous sample of interview for analysis. The participant advisory group read and coded the information on the margin using words and numerical codes. The group used arts-based techniques to agree on a range of key themes. The researchers supported the analysis by providing sections of published work; however, the coding was agreed by the group. This process was innovative but also described as time-consuming and required flexibility from researchers (Coad & Coad, 2008).

Livingood et al. (2017) also included adolescents in data analysis. They were trained on analysing focus groups notes using content analysis. This enabled them to identify themes. In a second session, adolescents completed a matrix for each theme identified and displayed it on a poster that included notes and quotes under each theme, and these were displayed around the room.

Overall, the inclusion of adolescents in data analysis can be sensitive as this may compromise confidentiality. Data may have been shared with a single researcher based on a relationship of trust and participants may not want to share their experiences with others. Considering this issue, Holland et al. (2010) asked adolescents to look at their own data only. This, however, meant that young people were not able to identify any similarities to, differences with or connections between the data from all participants.

Involving adolescents in data dissemination will enable the inclusion of adolescents' voices in conferences or publications such as supplementary presentations, panel discussion and texts (Wulf-Andersen et al., 2021b). Petrie et al. (2006) facilitated the involvement of adolescents in data dissemination. Members of the Advisory Group carried out a presentation at local conferences and universities. Flicker (2008) had an adolescent intensive dissemination strategy. For a peer research audience, three scholarly papers were written. Adolescents designed zines for community distribution. Zines are self-published, non-commercial magazines using, for example, collage techniques and with original text and images. The team were also involved in developing three community newsletter articles and 21 conference presentations. Flicker (2008) also organised a community-wide forum for youth and service providers. The findings of the work were used to inform practice across sectors. Service providers were advocating more effectively for adolescents. A website was also created to provide youth treatment information needs (Flicker, 2008).

Participatory Data Analysis

Chen et al. (2010) show an example of participatory data analysis, which was carried out in a group workshop.

This study used an inductive qualitative analysis method to analyse participants' responses:

1. Read participant responses. Participants try to identify patterns in the responses and discuss ways to group similar responses into categories.
2. Identify key themes and patterns. Pairs presented their categories on chart paper to the larger group where they received feedback from their peers, adult staff and other team members.
3. Tally responses and calculate percentages. Select quotes to illustrate the themes. Participants presented their findings to the group as a final report using PowerPoint.

Creating the infrastructure and the positive environment to enable interaction between stakeholders, adults and adolescents is another way

to promote engagement and retention. The space can induce feelings of safety and or belonging, feeling recognised and able to contribute, or completely the opposite (Wulf-Andersen et al., 2021b). Researchers can ask adolescents themselves to suggest spaces where they would feel comfortable to meet (Wulf-Andersen et al., 2021b).

Adolescents are more likely to open up about their experiences in a supportive environment which enables a meaningful contribution from them (Vyas et al., 2022). The regional context in which research takes place, including the youth culture, research practices and politics of participation, shape the discussion of adolescent participation (Wulf-Andersen et al., 2021a). The setting can have an important influence on the dynamics of a consultation with adolescents. For example, Stafford et al. (2003) suggest that school settings can inhibit adolescents from expressing themselves, so there should at least be a guarantee of anonymity and a choice of non-classroom spaces. The context in which adolescents and researchers meet for the research is a determinant in the involvement that will take place (Wulf-Andersen et al., 2021a).

Group meetings with adolescents can be held in venues that are geographically close, as this can facilitate access to adolescents with physical impairments (Beresford & Sloper, 2003). Meeting spaces and activities must be purposefully youth friendly (Merves et al., 2015). For example, round tables or board rooms may not facilitate interaction and engagement (Merves et al., 2015). In their research study, Merves et al. (2015) provided office spaces for adolescents with cubicles, computers, access to internet, printers and mailboxes for each one.

Creating a suitable environment requires time (Oridota et al., 2023). Lightfoot and Sloper (2002) described that time is needed to carry out social exercises at the beginning of group activities to enable participants to get to know each other and feel comfortable with each other. Activities should also include a balance between serious work and fun (Lightfoot & Sloper, 2002). Other recommendations are to avoid sitting in chairs, use a semicircle and to have drinks, snacks and music (Lightfoot & Sloper, 2002). Research has found that the way the content is presented is important. Workshops, for example, should seem more like a conversation than a lecture (Oridota et al., 2023).

The way in which activities are conducted with adolescents has an impact on their motivation to attend (Petrie et al., 2006). For example, Petrie et al. (2006) summarised past sessions, set the agenda and planned actions at every meeting. This enabled all adolescents to engage even if they had missed previous sessions. Meeting material was circulated in

written form (which was ineffective), so other methods were used such as texting (Petrie et al., 2006) as well. Therefore, adolescents could be kept up to date and interested in what was happening in the group. This, however, may not be ethical. Researchers should think about recommendations and restrictions about data keeping and sharing before circulating group information.

Like any other type of research, adolescent participatory health research takes place within an institutional, legal and policy context (Healy, 2021), which will have an impact on the overall process. According to Van Staa et al. (2009) a hospital is not an ideal setting to carry out community-based research. Van Staa et al. (2009) carried out a study with adolescents with chronic conditions in a discotheque. The disco had a radio DJ, graffiti and a breakdance artist. Interviews were held in a discotheque café.

Adolescents' homes can be safe spaces to carry out data collection (Beresford & Sloper, 2003) and it may be suitable for adolescents experiencing an illness or impairment (Birks et al., 2007). Birks et al. (2007) suggest that interviews should be carried out in a room where the child and interviewer are alone; however, due to child protection issues, doors and windows should be open and the child should be visible to other adults in the house. In line with new child protection guidelines, researchers should avoid being alone or behind closed doors with children and adolescents during interviews; however, this can be overwhelming for participants. Small purposeful actions, such as allowing participants to control the recording equipment themselves, can give adolescents a sense of control.

Having an appropriate research team is fundamental (Flicker & Guta, 2008). The team, ideally, should have research, community and clinical experience to meet the professional and ethical standards of research. It is also important to deal with emerging issues with adolescents in a sensitive and responsive way (Flicker & Guta, 2008). Researchers and facilitators should have experience of working with adolescents or, if starting in the field, they should have a commitment, interest and training in the field (Merves et al., 2015). Harper and Carver (1999) highlighted that establishing the initial cohesion with participants was facilitated by a project coordinator and researcher with extensive experience in working with high-risk adolescents who were, therefore, familiar with the norms and 'language' of research participants.

Similarities with peers can also contribute to engagement and retention. Studies should ensure that adolescents who are part of the research team closely resemble study participants to create a sense of comfort and trust (Oridota et al., 2023). Adolescent researchers should be of similar ages to

research participants (Shortt & Ross, 2021), have similar ethnic backgrounds and share other similarities with the population targeted by the programme and research studies (Harper & Carver, 1999). In the specific case of Harper and Carver (1999), due to the nature of their study and population, adolescent researchers had to feel confident working on the streets with other adolescents and not be involved in situations where encountering other adolescents may lead to conflict or danger.

Similarities with peers can have a very significant impact on participant recruitment and retention. Harper and Carver (1999) hired adolescents to carry out phone calls to research participants to recruit them for the study follow-up. According to the authors, the adolescents were especially skilled in finding hard-to-reach participants. Having a sense of identification is also important in other aspects of the research. For example, an adolescent designed a logo for the study, and this logo was printed on t-shirts and all materials used in the programme (Harper & Carver, 1999).

2.4   Setting Realistic Expectations

Adolescents may have a variety of reasons for joining a study (Oridota et al., 2023). Maglajlic and RTK PAR UNICEF BiH Team (2004) found adolescents joined to do something useful for their communities, learn something new, become more confident, develop work habits, meet new friends and spend time with them, as well as earn money. Understanding the motivation can contribute to retention: adolescents would be eager to engage in the study if it meets their interests.

It is important to set realistic boundaries in the research study from the start, based on the resources, data and time available, and even on the researchers' skills and capacities; otherwise adolescents may feel let down or betrayed by the researchers. It would be ideal if research could give adolescents exactly what they want or imagine, but this is not always possible. Research, therefore, needs to set some realistic boundaries to avoid disappointment or upset from everyone involved. Shortt and Ross (2021), for example, proposed a qualitative research approach from the outset and then enabled adolescents to select from a variety of qualitative methods.

Merves et al. (2015) developed ground rules in partnership with the adolescents, for example including attendance policies and the consequences of or exceptions to these rules. Additionally, these guidelines included: the role of respect, personal responsibility, responsibility to the research team and accountability. Rules were also agreed upon through a voting process with a two-thirds majority agreement (Merves et al., 2015).

Boundaries should also include ethical and appropriate limits for adolescents involved in the research and research participants (Harper & Carver, 1999). Adolescent researchers should not get involved with co-researchers or other adolescents as this may have a negative impact on research objectivity; for example, participants should not be recruited for inappropriate reasons such as a sentimental interest or attraction (Harper & Carver, 1999). Adolescents should also separate their work life from their social life; no research information should be shared with their friends (Harper & Carver, 1999).

Research that includes adolescents as part of the research team should be flexible. Harper and Carver (1999) worked with adolescents experiencing high risk; this meant there were circumstances where they may not be able to engage in the research, for example due to incarceration, pregnancy, homelessness, depression, substance abuse or trauma. It is important not to exclude adolescents immediately; their circumstances should be evaluated and the necessary changes should be made to accommodate them if possible (Harper & Carver, 1999).

Researchers must set realistic expectations regarding the capacity of the research to generate change and the speed at which this may happen. Aldana and Richards-Schuster (2021) described adolescents getting frustrated with the slow pace of change. Adults must help adolescents to recognise the efforts they are making, visualise the 'big picture' and celebrate small victories along the research process (Aldana & Richards-Schuster, 2021), as well as after it. This means dissemination of findings and the impact of these should be followed up over time and provided for adolescent participants, even if the research process has ended. This, of course, requires resources in terms of time and money and ways to keep engagement over time. Since changes do not happen immediately, this is a crucial component of the research.

2.5   Selecting the Most Suitable Research Method

Stafford et al. (2003) consulted participants themselves about their thoughts about different research methods. These small group discussions were described as positive because adolescents felt less shy around other adolescents, and as a space to share ideas, it was described as fun, quick and convenient. These groups would work better if carried out in privacy, away from teachers and led ideally by an outsider. Adolescents liked having their friends but, importantly, thought sensitive topics would be easier to discuss with other adolescents who they knew they would never see again.

Individual interviews were described by adolescents as a very personal method, which made them feel listened to and they were an opportunity to express themselves in more detail (Lightfoot & Sloper, 2002). This method was described as time-consuming for researchers. Additionally, adolescents recommend that these interviews and group discussions should be carried out by external personnel so that they could express themselves more freely, particularly if they had a criticism or a negative idea to express (Lightfoot & Sloper, 2002).

Questionnaires were perceived as good because many adolescents can take part from different schools and geographical areas. These are also confidential and anonymous, easy and convenient. Questionnaires, however, can be limited in presenting an accurate picture of people's views and some participants can struggle to write about their personal experiences. Questions should not be boring but easy to understand (Stafford et al., 2003). Written methods are a quick and easy way to obtain information; however, the response rate can be poor. Participants are usually limited in the amount of information they can provide and their capacity to accurately express their ideas and feelings in written form. Asking for follow-up clarification from adolescents may not be possible (Lightfoot & Sloper, 2002).

Adolescents suggested that questionnaires must be short, taking no more than 10 minutes to complete (Lightfoot & Sloper, 2002). This, however, may be an unrealistic task as certain research questions and methodologies may require more information and therefore more and longer questionnaires must be designed. Time should be carefully considered; questionaires can't be too long as to avoid causing fatigue; however, making them too short may result in poor quality produced or incomplete data which may be detrimental for the quality of the study and its capacity to respond appropriately to the research question. In this case, it would be beneficial, for example, to have a pilot questionnaire completed by participants like those targeted by the research to determine how long they take to complete the questionnaires, then shorten them if needed or even divide data collection into different sessions.

The Society for Adolescent Medicine (2003) described that parents may have an underlying fear of questionnaires harming adolescents by promoting or inducing unhealthy behaviours. The authors, on the contrary, explained that completing surveys can increase understanding of adolescents' behaviour and facilitate care seeking (Society for Adolescent Medicine, 2003).

Other writing methods, such as writing a letter, can be more suitable for adolescents who like writing and wish to express their feelings and thoughts in more detail (Lightfoot & Sloper, 2002).

Youth forums and councils are perceived as positive because adolescents can express their views in a space where adults are encouraging them to speak, and they feel listened to. Participants, however, perceived a lack of achievements and changes due to inflexible institutional policies (Stafford et al., 2003).

Role play can be used to explore participant experiences of doctors, healthcare settings and healthcare experiences. Beresford and Sloper (2003) asked adolescents to act out a 'nightmare outpatient appointment' and an 'ideal outpatient appointment'. The content of the role play was not analysed, instead the debriefing of the role play and a subsequent discussion and brainstorm were used to achieve the research objectives.

2.5.1 Selecting the Most Appropriate Technology

Researchers need to appropriately select the best technological platform to match the outcome expected and the best suited for their research objectives and design. For example, platforms such as Zoom may be useful for real-time discussions about data analysis (Gibbs et al., 2020). Adolescents may benefit from in-person meetings to develop group norms and upcoming scenarios surrounding decisions within online environments (Gibbs et al., 2020).

Researchers need to identify the most suitable technology for their study before making a purchase. They should consider price, functions and user friendliness, as well as that these are compatible with the software and hardware available for the subsequent analysis and dissemination of the data (Chen et al., 2010). Both researchers and adolescents should be familiar with the equipment before initiating data collection (Chen et al., 2010).

Letter Writing (Lightfoot & Sloper, 2002)

The researcher asked adolescent participants (in-patients) to write her a letter about their experience in the ward and what changes they would make. The contents of these letters helped to identify participant concerns and supported the creation of an adolescent unit in the ward.