

1 **Title:** Using Visual Timelines in Telephone Interviews: Reflections and Lessons Learned
2 from the Star Family Study

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6 **Abstract**

7 Visual timeline methods have been used as part of face-to-face qualitative interviewing with
8 vulnerable populations to uncover the intricacies of lived experiences, but little is known about
9 whether visual timelines can be effectively used in telephone interviews. In this article, we
10 reflect on the process of using visual timelines in 16 telephone interviews with women as part
11 of the ‘STarting a family when you have an Autoimmune Rheumatic disease’ study (STAR
12 Family Study). The visual timeline method was used to empower women to organize and share
13 their narratives about the sensitive and complex topic of starting a family. We conducted a
14 thematic analysis of the audio-recorded interview data, using researchers’ field notes and
15 reflections to provide context for our understanding of the benefits of using timelines, to
16 understand the process of using visual timelines during telephone interviews. Resource packs
17 were sent to women before study participation; 11 out of 16 women completed a version of the
18 timeline activity. Six themes were identified in the methodological data analysis: 1) Use and
19 adaptation of the timeline tool; 2) Timeline exchange, 3) Framing the interview: Emphasizing
20 that women are in control; 4) Jumping straight in; 5) Taking a lead, and; 6) Disclosing personal
21 and sensitive experiences. The use of visual timelines facilitated interviewee control and
22 elicited rich narratives of participants’ experiences in telephone interviews. Women created
23 their visual timelines autonomously and retained ownership of their timeline data; these
24 features of the data generation process need to be considered when using visual timelines in

1 telephone rather than face-to-face interviews. Use of visual methods within telephone
2 interviews is feasible, can generate rich data, and should be further explored in a wider range
3 of settings.

4

5 *Keywords:* Communication; data collection; life stories; lived experience; power,
6 empowerment; interviews, marginalized or vulnerable populations; reflexivity; research
7 participation; qualitative methods; visual methods.

8

9 What is already known?

10 Timelines have been used effectively as a visual method in qualitative face-to-face interviews
11 with vulnerable or marginalized groups. Telephone interviews are becoming recognized as a
12 valuable way to collect rich data.

13 What this paper adds

14 This paper presents a study where timelines were used effectively as an elicitation tool within
15 telephone interviews. This facilitated participant control and generated rich, detailed narratives
16 of their lived experiences, providing an opportunity to potentially develop the use of visual
17 methods in telephone interviews. However, there are some nuances in the data generation
18 process relating to women's autonomy and ownership of the timelines that need to be
19 considered when using visual timelines in telephone interviews.

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Introduction

Background to the STAR Family Study

The ‘STarting a Family when you have an Autoimmune Rheumatic Disease’ (STAR Family Study) adopted a mixed-methods approach to help construct a holistic picture of women’s transitions to motherhood when they had an autoimmune rheumatic disease (ARD, Phillips, Pell, Grant, Bowen, Sanders, Taylor, Edwards, Choy, & Williams, 2018a; Phillips, Williams, Bowen, Morris, Grant, Pell, Sanders, Taylor, Choy, & Edwards, 2018b). ARDs are debilitating and painful long-term conditions where the immune system attacks its own tissues, such as inflammatory arthritis, Systemic Lupus Erythematosus, and vasculitis (Goldblatt and O’Neil, 2013). Women with ARDs encounter a range of challenges when they begin to approach a transitional journey during their childbearing years, including: fertility; timing pregnancies; increased risk of miscarriage; changes in disease activity; risks and benefits of medication and treatment during pregnancy and breastfeeding; and managing pain and physical limitations when caring for young children (Ostensen & Ceti, 2015; Nightingale & Farmer, 2006; Signore, Spong, Krotoski, Shinowara, & Blackwell, 2011). Research has highlighted the lack of information available to women during this emotive and challenging time, and more integrated care has been recommended (Ackerman, Ngian, Van Doornum, & Briggs, 2016; Phillips et al., 2018b).

1 Therefore, the topic we wished to explore in the STAR Family Study was of a sensitive
2 and complex nature, with a vulnerable group of women. We adopted a woman-centered
3 approach to address the power-imbalance between the participants and researchers, as we
4 wanted to place the women in control of sharing their narratives as experts in their own
5 experiences, highlighting and reinforcing women's autonomy. For the purposes of this
6 manuscript, we conceptualized power as something one possesses as we focused on locally
7 situated power dynamics between the interviewee and interviewer within the context of the
8 research interview. However, we acknowledge there are other definitions of power (e.g. Sarup,
9 1993). Our study ethos was consistent with feminist approaches to qualitative research (e.g.
10 Tong & Fernandes Botts, 2017; Hesse-Biber, 2011; Brooks & Hesse-Biber, 2007; Landman,
11 2006), but also has relevance to other marginalized groups, aiming to achieve a better
12 understanding of participants' lived experiences that might otherwise be invisible or only partly
13 observed.

14 In line with our study ethos, we wanted to use visual methods within this study, as
15 graphic elicitation is a valuable method to uncover the intricacies of lived experience that might
16 not come to light through discussion alone, particularly when exploring sensitive issues
17 (Cornwall, 1992; Gauntlett, 2007; Rose, 2007; Aarsand & Aarsand, 2018; Bravington & King,
18 2018). Qualitative studies have used an array of visual methods for more creative interviewing
19 methods, including photographs (Frith & Harcourt, 2007; Heng, 2017; Radley & Taylor, 2003;
20 Rose, 2007, 2012), Lego (Gauntlett, 2007), paintings and artwork (Irving, 2007), possessions
21 in the home (Grant, Mannay & Marzella, 2017; Miller, 2008) and sandboxing (Mannay, Staples
22 & Edwards, 2017). However, methodological reflection around the appropriateness of visual
23 tools in different contexts is essential (Mannay, 2016).

24 **Visual timeline methods**

1 Timeline methods involve forming a visual chronological representation of significant
2 life events (Berends, 2011; Patterson & Somers, 2012). Participants are able to organize their
3 thoughts and share their lived experiences in their own way by reflecting on their past, present
4 and future (Bagnoli, 2009), enabling rich and unique explorations of data (Mannay, 2010,
5 2016). Timelines are particularly useful in illustrating narratives of individuals' journeys
6 (Sheridan, Chamberlain, & Dupuis, 2011) and capturing the meaning and context attached to
7 specific events (Lueng, 2010), which was an important focus within the STAR Family Study.

8 Previous studies have used timelines as a method of qualitative data collection to
9 address some of the challenges arising in more traditional qualitative interviews. These include:
10 altering traditional power imbalances between the interviewer and interviewee; adopting a
11 more person-centered approach to interviewing; facilitating interactivity to enhance the
12 understanding of experiences; and negotiating potential barriers associated with interviewing
13 vulnerable or marginalized groups (Berends, 2011; Kolar, Ahmad, Chan, L & Erickson, 2015;
14 Goldenberg, Finneran, Andes & Stephenson, 2016; Harris & Rhodes, 2018).

15 In the STAR Family Study, it was anticipated that the women's journeys would be
16 evocative and poignant, causing potential distress when sharing their personal stories which
17 can generate ethical and practical challenges for the researcher-participant relationship
18 (Hollway & Jefferson, 1997). Creating a timeline has been reported as cathartic; aiding
19 reflection on positive and negative personal experiences by acting as a visual guide, framing
20 participants' journeys, and highlighting participants' resilience during transitions between
21 significant life events (Kolar et al, 2015).

22 We chose to use timeline-facilitated interviews in the study, over other available visual
23 methods, as this would enable women to visualize their journey chronologically, helping them
24 to organize their narratives and reflect on important life events along their journey so far. This

1 would ultimately facilitate an exploration and conceptualisation of the women's personal
2 experience and perspective.

3

4 **Use of visual timelines in telephone interviews**

5 Our population of interest in the STAR Family Study were a hard to reach group, who were
6 widely geographically dispersed across the UK. Consequently, some of the interviews needed
7 to take place over the telephone to fit within the study's budget and staff resources.

8 Telephone interviewing is becoming recognized in its own right as having the capacity
9 to produce rich and high-quality data (Grant, 2011; Irvine, 2011; Vogl, 2013; Ward, Gott, &
10 Hoare, 2015), with tools and strategies being developed to help qualitative researchers use them
11 appropriately (Farooq & De Villiers, 2017). The literature on visual methods timelines has
12 focused on their use within face-to-face interviews as a co-production method, where the
13 participant and interviewer can interact with the visual timeline to explore the complexities of
14 participants' experiences (Gauntlett, 2007). However, there have been arguments around the
15 co-productive nature of the timeline method and the potential shifts in power imbalance, as
16 well as the possibility of participants' feelings of over-sharing experiences that they may, in
17 hindsight, regret disclosing (Adriansen, 2015), whereas there would be limited opportunity for
18 co-production within telephone interviews.

19 The aim of this study was to assess the feasibility of using visual timelines in telephone
20 interviews as part of the STAR Family Study, reflecting on the process of data generation and
21 the quality of data produced when using this method.

22 **Research Questions**

23 We set out to answer the following research questions:

24

- 1 1. How were the visual timelines used by women and researchers in the telephone
2 interviews (e.g. what visual form did they take, who was involved in generating the
3 timelines, were the timelines shared with the researcher and if so when)?
- 4 2. What impact did their use have on the generation of data in terms of the interviewee-
5 interviewer dynamic and formation and sharing of women's narratives?
- 6 3. What impact did visual timelines have on the quality of data produced in telephone
7 interviews in terms of narrative length, detail, and coverage of sensitive and emotive
8 topics?

9

10 **Method**

11 The STAR Family Study used timelines as a methodological tool to facilitate face-to-face and
12 telephone interviews with women who had an ARD and were thinking about starting a family,
13 were currently pregnant, or were a parent to young children. We reflect on the experience of
14 using timelines over the telephone through analysis of reflective field notes, audio recordings
15 and interview transcripts. The article will focus on the interactions and behavior of interviewers
16 and participants in order to highlight methodological lessons through keys areas of study
17 context and ethos.

18

19 **Participants**

20 Our interview sample was derived from women who had taken part in the online survey aspect
21 of the STAR Family Study, which had been advertised on social media, and who had reported
22 willingness to participate in an additional in-depth interview about their experiences (Phillips
23 et al, 2018a). The women who took part were UK residents, aged 18-49 years, with a diagnosed
24 ARD, who were thinking about starting a family, currently pregnant, or had young children.
25 Women were purposively sampled based on their family situation, aiming for an equal

1 representation of women at different stages of their journey (i.e. pre-conception, pregnant, or
2 already had young children). Data collection took place between December 2016 and April
3 2017.

4

5 **Interview preparation and study ethos**

6 Authors 1 and 2 facilitated the interviews, both of whom are cisgender white British women
7 who do not identify as having a disability. Author 2 has children, whereas Author 1 does not.
8 Both interviewers had previous experience of conducting qualitative interviews and were
9 trained in study specific processes by the CI (Author 3) and Qualitative Lead (Author 7).
10 Neither of the interviewers had an ARD and they had no previous experience or expertise in
11 this disease area. Interviewers maintained a broadly consistent approach to introducing
12 themselves and the timeline before the interview, introducing themselves by email initially,
13 and aiming to be friendly and informal in order to put women at ease.

14 Participants who agreed to an interview received a study resource pack approximately
15 one week before the arranged interview date. The pack included stationary items consisting of
16 paper, a timeline template, emoticon and colored stickers and colored pens, as well as an
17 example key of colors to represent different feelings and physical symptoms, which they could
18 choose to use or adapt. An example of the blank timeline template is provided in Figure 1.
19 Alongside the stationary, participants were given colorful, easy-to-read documents which
20 contained a list of topics in which we were interested, along with a set of instructions making
21 it clear that participants could adapt the template, write as much, or as little as they wished, or
22 even not write anything at all (see supplementary file 1). We clearly stated that women did not
23 have to talk about anything they did not want to. We highlighted that this exercise was to help
24 them tell their own story, in whatever way they felt reflected their experiences.

1 The interviewers explained the study, their role, and the purpose of the timeline.
2 Presenting the purpose of the timeline allowed the interviewers to highlight women's
3 ownership over the timeline elicitation tool and help to encourage the women to lead the
4 interview and exercise more control over its direction. The process of outlining the timeline
5 exercise and interview expectations is important for the purposes of obtaining informed consent
6 (Groenwald and Bhana, 2015; Marshall, 2009)

7

8 [INSERT FIGURE 1 HERE]

9

10 **Ethical approval and informed consent**

11 Ethical approval for the study was granted by the Cardiff University School of Medicine
12 Research Ethics Committee on 20/10/16. All women provided written informed consent to
13 participate in the interviews. The resource pack sent to women prior to interviews included a
14 consent form for the participants to complete and return, with at least 48 hours provided to
15 consider taking part, before interviews took place. Interviewers ensured that participants had
16 an opportunity to ask questions and verified consent before the interview commenced, to ensure
17 that participants were happy to take part and to be audio-recorded.

18

19 **Data collection and processing**

20 We completed 22 interviews with women in the STAR Family Study; 16 of these were carried
21 out over the telephone and 6 face-to-face. All interviews were audio-recorded and were
22 transcribed verbatim by a professional transcription company. Face-to-face interviews took
23 place in the women's homes. Telephone interviews took place over loudspeaker in a private
24 space, enabling researchers to audio-record the interviews while maintaining confidentiality.
25 Interviewers took field notes reflecting on the interview and the timeline elicitation approach.

1 They wrote these up as soon as possible after the interview took place, to ensure accuracy of
2 the notes and to contextualize the interview.

3

4 **Data analysis**

5 We analyzed data from three sources; interviewer field notes, qualitative interview transcripts,
6 and audio-recordings of the interviews, which needed a flexible approach suited to
7 methodological analysis incorporating data from multiple sources. We adopted Braun and
8 Clarke's (2006) approach to thematic analysis, a highly adaptable analysis which can highlight
9 comparisons and encourage insight into unanticipated themes (King, 2004; Braun & Clarke,
10 2006). Field notes and interview transcripts were imported into NVivo V11 to facilitate
11 analysis.

12 The first stage of analysis was familiarization, identifying areas of interest within
13 different interactional concepts. Author 1 created an initial coding framework for both the
14 telephone and face-to-face interviews, focusing on the methodological aspects of the data to
15 provide context to the telephone interviews and examine the interaction between the researcher,
16 participant, and the timeline (when present). Author 1 searched for and identified themes within
17 the telephone interview transcripts, using field notes and audio-recordings to contextualize the
18 information extracted. Discussions were held within the core qualitative research group to share
19 reflections, review, refine and name the themes identified (Authors 1, 2, 3 and 7), and reach
20 agreement on the interpretation of the data. This approach has been deemed appropriate for
21 qualitative research (Barbour, 2001).

22

23

Findings

24 Table 1 presents participants' demographic characteristics. The majority of participants had
25 children, were employed and educated to degree level, and all participants identified as white.

1 The overall mean length of the telephone interviews were 48 minutes and ranged from 20
2 minutes to 70 minutes in length.

3

4 **Table 1.**

	Telephone interviews, (n=16) n (%)
Family situation	
Thinking about having children	5 (31)
Pregnant	1 (12)
Have young children	9 (56)
Ethnicity	
British, English, Welsh, Scottish, or Irish	13 (81.3)
Other: non-European	2 (12.5)
Other: European	0 (0)
Employment	
Full-time employment	7 (37.5)
Part-time employment	6 (43)
Not employed or seeking work	1 (6)
Education – university degree or above	12 (82)
Age	Mean 33 (SD 4.8)
	Range 24 - 41

5

6 Table 1 - Demographic Characteristics of Interview Participants

7

8 Six themes relating to our research questions were identified in our methodology-
9 focused thematic analysis: 1) *Use and adaptation of the timeline tool*; 2) *Timeline exchange*,
10 3) *Framing the interview: Emphasizing that women are in control*; 4) *Taking a lead*; 5)
11 *Jumping straight in*; 6) *Disclosing personal and sensitive experiences*. The source of the data
12 from which quotes are extracted and how the timeline was used (if present) in the
13 corresponding interview are indicated at the end of each quote to provide context.

14

1 **Research Question 1: How were the visual timelines used by women and researchers in**
 2 **the telephone interviews?**

3 Table 2 provides a summary of how interviewees used the visual timelines.

4

5 **Table 2.**

	Telephone interviews (n=16) n (%)
Copy of timeline returned to researcher	
Yes	3 (18.8)
No	8 (50)
Not applicable	5 (31.2)
Participant use of the timeline	
Timeline template	0 (0)
Bought medical notes to facilitate discussion	0 (0)
Created their own version of the timeline in note form	6 (37.5)
Created a version of the timeline using prompts and notes	2 (12.5)
Created a spider diagram version of the timeline	1 (6.3)
Participant used guidance notes to structure narrative	2 (12.5)
No timeline used	5 (31.3)

6

7 Table 2 - Participant Timeline Completion Details

8

9 Five of the sixteen women interviewed by telephone did not complete the timeline or
 10 an adaptation of the timeline, whereas in the face-to-face interviews, five of the six participants
 11 completed a version of the timeline.

12

13 *Theme 1: Use and adaptation of the timeline tool*

1 One of the benefits of using the visual timeline tool in the interviews was that it helped women
2 to structure narratives and to talk about experiences that were important to them. In an instance
3 where no timeline was used a participant said: “I’m sorry if this is all jumping around a bit,
4 maybe I should’ve made notes” (telephone interview transcript and audio-recording, no
5 timeline used).

6 By contrast, another participant’s use of a timeline demonstrates how it prompted
7 reflection and an opportunity to understand how she had structured her narrative: “I was just
8 going to have another little look again, because I was having a look last night at the um, all the
9 bits of paper again so err right” (telephone interview transcript and audio-recording, timeline
10 used).

11 Similarly, for the women who used a version of the timeline in the telephone interviews
12 it was observed by the researchers, and sometimes directly reported by participants, that
13 making notes had helped to organize their thoughts chronologically. For example, one
14 participant reported using the timeline guidance notes to frame her narrative, without making
15 any written notes.

16

17 **Research Question 2: What impact did using the visual timelines have on the generation**
18 **of data?**

19 ***Theme 2. Timeline exchange***

20 In the STAR Family Study, timelines were included primarily as an elicitation tool and
21 our data analysis focused on participants’ verbal narratives, rather than on the timelines
22 themselves. We did not ask for the timelines to be shared with the researcher before the
23 telephone interviews, and we anticipated that women may add to or modify their timelines as
24 they moved through their narratives. Therefore, the timeline was not visible to the interviewer.

1 At the end of every telephone interview in which a visual artifact had been created, we did
2 request a copy of it as a picture sent by telephone, scan sent by email, or paper version returned
3 by post, as long as the women were happy to do so. Participants who had undertaken a
4 telephone interview appeared to display some hesitancy about sharing their timeline:

5 I: I also wondered whether you wouldn't mind, obviously I know that you, you
6 probably want to keep your spider diagram, but if you wouldn't mind taking a photo of
7 it and sending it to me?

8 P: Yes if you would like to decipher my handwriting that's absolutely fine (laughs)

9 I: Yeah that's absolutely, yeah no that would be great if you wouldn't mind sending a
10 photo that would be fantastic (telephone interview transcript and audio-recording,
11 spider diagram version of timeline)

12 All the timelines were received by the research team for the face-to-face interviews, but
13 none of the timelines produced by the telephone interviews participants were returned to the
14 research team. By retaining ownership of their timelines during telephone interviews, women
15 stayed in control of the data that they shared with the researchers, which was consistent with
16 the ethos of the study. However, this meant that the visual data was not available to the
17 researchers for analysis. In contrast, using the timeline as a tool during a face-to-face interview
18 naturally includes a visualization of the timeline by the interviewer. The presence of the
19 interviewer in person in the face-to-face interviews may have contributed to an expectation that
20 participants would present their version of the timeline to them and might have influenced the
21 content that they chose to include as a result.

22 The research team reflected that the timelines supported the primary analysis of the
23 interview data, in those instances where they had been returned in the face-to-face interviews
24 (reported in full elsewhere - Phillips et al, 2018a). The timelines provided a structure around

1 which to build a coding framework to organize the complex and varied content of narratives.
2 The women's experiences situated as a chronological journey within these timelines, enabled
3 us to identify key events and milestones. There was, therefore, a trade-off between
4 empowerment of interviewees and the availability of visual data for analysis.

5

6 ***Theme 3. Framing the interview: Emphasizing that women are in control***

7 The interviewers reiterated the purpose of the timeline and asked participants whether they had
8 used the timeline at the beginning of interviews. This framing of the interview was emphasized
9 in the telephone interviews, where the conversation was recorded from the outset:

10 Interviewer (I): I'd really love to hear about your experiences, what's been important
11 to you and to really let you lead on this so I'm happy to sit here and just listen

12 Participant (P): That's kind of what I'm doing – doing a bit of a spider diagram of all
13 factors that are important, or affect those, those decisions around that so it kind of really
14 helped me think about things that might be useful to share (telephone interview
15 transcript and audio-recording, spider diagram version of timeline).

16

17 I: This interview to be honest with you, it's not a typical interview I'm not gonna be firing
18 questions at you in any way, shape or form. It's really gonna be led by you and you telling
19 us your story. You know treat me as a blank slate. Did you make any notes or did you do a
20 little timeline at all to help tell your story. If you did you can use that, or you know you can
21 start at any point you want to talk about really'

22 P - Yeah I think I'm just gonna start from the start. I think that's the easiest way to do it
23 (telephone interview transcript and audio-recording, notes version of timeline)

1

2 In both examples, the interviewer attempts to shift the interview power balance,
3 continuing to set the scene of a women-centered approach by offering participants the
4 opportunity to lead the interview and initiating a space for the women to talk freely. The
5 framing of interviews from the outset by outlining the role of the participant as the narrator,
6 with freedom to choose the topics, is an important element of empowering people to take
7 control of their narratives (Veronesi, 2019).

8 The interviewer emphasized choice in the timeline activity when framing the interview:
9 I: did you manage to do anything with it ((the timeline))? Doesn't matter if you didn't, some
10 women find it helpful to have written down some thoughts on what's been important in their
11 journey before we start, but it's absolutely okay if you haven't managed to do so (telephone
12 interview transcript and audio-recording, notes version of timeline).

13 Indeed, some participants (n=5) chose not to use the timeline in the telephone
14 interviews. Most explained that this was because they were busy and didn't have the time,
15 although one woman highlighted the emotional challenge of putting her traumatic experiences
16 in writing:

17 P: Sure, I had a look through everything that you sent to me, um and I chose not to
18 write anything down.

19 I: Yeah.

20 P: Um I think, because I, I had a look at the sort of timeline part and um it just felt a bit
21 difficult to put it on that really so.

1 I: Uh huh absolutely. Yeah it, it's like I said, it's just one of the tools that some women
2 find useful, some women don't so yeah it's entirely up to you (telephone interview
3 transcript and audio-recording, no timeline used).

4 The timeline exercise was an optional activity, for the women to use as a tool to make
5 the interviews more woman-centered and to organize their thoughts. When participants had not
6 completed a timeline, the interviewers used politeness strategies, communicating acceptance,
7 emphasizing freedom of choice using warm and friendly tones, to prevent participants feelings
8 of guilt or shame before and after the interview process, for not completing the timeline
9 activity, whilst still orienting the interview and the respective roles of the participant and
10 interviewer.

11 ***Theme 4. Jumping straight in***

12 The timelines were important in enabling women to focus their interview on the topic at hand
13 and enabled them to move swiftly into their narratives. Once the interviewer had framed the
14 interview and taken the participant through the mandatory ethical statements, the participant
15 then progressed naturally into telling her story, as shown by the excerpt below. This suggests
16 comfort in the situation, rapport with the interviewer and a general desire to share experiences,
17 which might have been encouraged by reflecting on experiences: “Okay so, I got married in
18 2013 and I was taking Leflunomide I think at the latter of at the end of 2012, I'd been on
19 Leflunomide for oh a number of years like probably maybe 10 years, an awful lot of years and
20 I noticed that my RA started to decline at that point and then so at the end of 2013 my RA was
21 really quite bad” (telephone interview transcript and audio-recording, notes version of
22 timeline).

1 The timeline exercise helped participants reflect on and frame their journey before
2 telephone and face-to-face interviews, which may have reduced pre-interview anxiety about
3 ‘saying the wrong thing’, which has been reported in narrative interview studies (Holt, 2010).

4 *Theme 5. Taking a lead*

5 The timelines encouraged discussion around things that might not have been prompted by the
6 interviewer, but that the participant clearly felt were important to discuss as part of their
7 journey, demonstrating authoritative behavior as a result of using the timeline. There were
8 times in the telephone interviews where the timeline became a physical prompt, so the
9 participant could check whether they had covered everything they wanted to: “So yeah that’s
10 something and there was one other thing I was going to say about after the baby was born but
11 I can’t remember what it is now I’m trying to scan my notes ((laughs)). Once the participant
12 found the part in her notes she was referring to, she then continued with her narrative: “yeah
13 I’ve known about how my condition might affect the baby so just a bit of nervousness about
14 the <<condition>> a little bit of that and if there are any congenital heart defects ... I kind’ve
15 feel like there’s a couple more things because of my condition, those couple more things are
16 all very serious things” (telephone interview transcript and audio-recording, timeline in note
17 form).

18 The field notes indicated that at the end of the interview, one woman who took part in
19 a telephone interview requested for the recorder to be switched back on and for the interview
20 to be continued, so that she could raise something that she had written in her notes but not yet
21 spoken about:

22 ‘At the end of the interview the participant checked the notes that she had made and
23 realized that she had not covered one topic that she had previously written down. She
24 therefore requested permission for the recorder to be switched back on and for the

1 interview to be continued' (extract from researcher field notes and audio-recording,
2 telephone interview).

3 There were occasions when participants sought direction from the interviewer: "So
4 that's sort of, I don't know if you've got any questions around that, that would be helpful to
5 explore for you?" (telephone interview transcript and audio-recording, timeline in note form).
6 Here the participant assessed the relevance of their narrative in response to the interviewer's
7 research goals, thereby orienting to a new frame, which sought the interviewer's confirmation
8 and response. This indicates a subtle resistance to the original framing of the interview,
9 emphasizing women's freedom to share their stories in their own way, as there was still a desire
10 to provide information that was of interest to the researcher.

11

12 **Research Question 3: What impact did visual timelines have on the quality of data**
13 **produced in telephone interviews?**

14 *Theme 6. Disclosing personal and sensitive experiences*

15 Telephone interviews elicited personal and sensitive accounts of the women's experiences. The
16 timeline, coupled with our woman-centered study ethos, encouraged this by giving the women
17 freedom to navigate the interviews and tell their own stories. The process of holding pre-
18 interview conversations regarding the timeline could have helped in initiating the development
19 of a relationship and establishing trust prior to the telephone interview. Interviewers
20 emphasized choice, freedom and interest in the women's stories, as well as highlighting choice
21 in their interview setting, date and time. The rich quality of narratives elicited in the telephone
22 interviews in terms of the length of interviews, level of detail, and range of topics covered was
23 comparable with the face-to-face interviews carried out within the same study. This
24 highlighted the importance of developing a rapport before the interview. Developing and

1 building rapport with participants is a continuous process, which needs to be re-visited and
2 nurtured, to establish trust when it comes to the facilitating the interview.

3 Using the timelines helped capture the meaning attached to important events in the
4 participant's life (Leung, 2013), and illustrated the participant's lived experiences of ARD. The
5 telephone interviews within this study produced detailed and open accounts, with personal and
6 sensitive disclosures being made. Participants' innermost emotional and physical struggles
7 were discussed:

8 (I had to take time off work) every 3 or 4 months because the RA wasn't, it wasn't
9 completely stable, but it wasn't as stable as it could've been and that year was a huge,
10 huge struggle. I struggled to stay in work I had a lot of time off. I struggled emotionally
11 with it and me and (my husband) physically struggled to kind of, want for a better
12 phrase, to have enough sex to make a baby because I was in so much pain and so
13 exhausted all of the time (telephone interview transcript and audio-recording, no
14 timeline used).

15 **Discussion**

16 In this article, we reflect on how visual timelines were used in telephone interviews as part of
17 the STAR Family Study, what impact they had on the generation of data, and the quality of
18 data generated using this method. The visual timeline method enabled women to lead the
19 interviews, and elicited long, rich narratives and personal, sensitive accounts of their
20 experiences. Interviewer characteristics and study ethos were important in determining how
21 the timelines were introduced and used. Consideration of how these contextual factors interact
22 with the use of timelines is important when selecting appropriate methods for qualitative
23 studies.

1 Use of the timeline elicitation encouraged women to take control over the direction of
2 the interview, ownership of stories, and disclosure of rich, personal accounts. The interviewer's
3 position of dominance and control within a standard semi-structured interview is well
4 established (Gilham, 2005). Timelines can be used as a tool to reduce this power imbalance,
5 particularly amongst vulnerable or marginalized groups (e.g. Berends, 2011; Goodrum & Keys,
6 2007). In this study the woman-centered ethos that aligned with feminist research principles
7 (Tong & Fernandes Botts, 2017; Hesse-Biber, 2011; Brooks & Hesse-Biber, 2007; Landman,
8 2006), along with freedom to adapt the timeline, or not use it at all, ultimately set the scene for
9 participants to play a role in leading the interview from the beginning. The timeline tool can be
10 used to reduce some forms of power imbalance (Vogl, 2013). However, it is difficult to remove
11 this altogether (Packard, 2008), particularly with marginalized groups (Mannay, 2016), and
12 there were occasions where participants sought direction from the interviewer.

13 In addition to the tools used within interviews, interviewer characteristics and the
14 approach used can influence power relations in interviews (e.g. Lomax, 2015, Mannay 2016,
15 Rose, 2007, Coffey, 1999; Johnson, 2018). The data produced in this study's telephone
16 interviews elicited rich, long narratives where the women offered personal and sensitive
17 accounts of their experiences (Phillips et al, 2018a). While there is uncertainty and ambiguity
18 in the literature over telephone interviewing and its ability to elicit participant openness
19 (Novick, 2008), our study supports the growing notion that telephone interviews can be just as
20 powerful as face-to-face interviews in their ability to collect rich, in-depth data (e.g. Stephens,
21 2007; Trier-Bieniek, 2012, Lee, 2013). Although it can be more difficult to establish a good
22 rapport in telephone interviews than face-to-face (e.g. Hermanowicz, 2002; Shuy, 2003), the
23 timelines may help mitigate this by giving participants ownership over their narratives, an
24 opportunity to reflect and organize their thoughts prior to interview, and enable them to move

1 rapidly into discussing sensitive and emotive issues, creating a level of rapport that may still
2 be comparable (Deakin & Wakefield, 2013).

3 There have been debates previously, around the co-productive nature of the timeline
4 method and its integral part of the interview (Gauntlett, 2007). These include shifts in power
5 imbalance, questions of anonymity and confidentiality (Berends, 2011; Marshall, 2017), as
6 well as raising the possibility of participants' feelings of over-sharing (Adriansen, 2012). In
7 this study, we chose to use the timeline as a pre-interview tool, focusing our analysis on the
8 verbal data provided by participants rather than on the timeline itself. This enabled women to
9 complete the timeline autonomously, ahead of the interview, allowing time for them to decide
10 what not to share, rather than 'co-producing' the timeline with the researcher.

11 An unanticipated effect of women completing timelines autonomously prior to
12 telephone interviews was that participants chose to retain ownership of the timelines after the
13 interviews, rather than giving them to the researchers to use during analysis. In keeping with
14 our study ethos and woman-centered approach, we felt it was important for the women to
15 maintain ownership and control of their personal stories and thus their timeline, to give them a
16 platform to organize and frame their narratives before the interview and thus facilitate and elicit
17 in depth narratives. This could have had an impact on the researcher-researched relationship,
18 due to the researchers' potential dependence on the participants' willingness to share the
19 timeline, which again would have shifted power dynamics within the relationship (Råheim,
20 Magnussen, Sekse, Lunde, Jacobsen & Blystad, 2016).

21 Disadvantages of the approach that we used in this study are that visual data from the
22 timelines could not be used to query and prompt during telephone interviews, and visual data
23 was lost as timelines were not made available to researchers to use during analysis. The
24 research team reflected that timeline templates provided to them following the face-to-face
25 interviews completed as part of the STAR Family Study were useful in supporting data analysis

1 (Phillips et al, 2018a), enabling us to look at how the participants had organised their narratives
2 chronologically and words or images that were emphasised. This encouraged the interpretation
3 of complex, layered data in the visual timelines, which may not have been easily conveyed
4 through narrative. Understanding and balancing these issues is important in considering how
5 timelines are used and depending on the focus of a particular study, it may be useful to request
6 a copy of the timeline in advance of interviews.

7

8 **Reflection and future research**

9 Limitations of this study include a relatively small sample size of women, over half of whom
10 were highly educated to degree level and there was no ethnic diversity. There was a strong
11 element of self-selection in our study, and we are unable to tell how willing our participants
12 were to share their stories compared with the wider population of women of childbearing age
13 who have an ARD.

14 Interviewer positionality is well established as affecting all research, particularly in
15 vulnerable populations (Mannay & Creaghan, 2017; Rose, 2007). Most women had not
16 received adequate support or felt listened to by health professionals in their prior experiences
17 (Phillips et al, 2018a). The provision of a safe space for them to share their lived experiences
18 and feelings surrounding this might have been a rare opportunity, and consequently encouraged
19 honesty and richness in their accounts, due to the cathartic experience within this. Women's
20 possession of their own timeline may have validated the ownership of their stories and thereby
21 the freedom to share what they felt comfortable in sharing, perhaps reducing the ethical
22 dilemmas raised in previous studies (Adriansen, 2012; Berends, 2011; Lomax, 2015). Author
23 1 and Author 2's roles as white British women, and Author 2's experience as a mother might
24 have encouraged rapport due to relatability. This coupled with our genuine interest in the

1 women's journeys, appeared to have inspired the women to be open with the interviewer, which
2 might not have been the case if the interviewer were a different person. This helped them to
3 gain insight into their own experiences and therefore reflect on and process their painful
4 experiences in a healthy way, sometimes giving them a reported sense of closure (Gabb & Fink,
5 2015). This reciprocity and interactivity again helps to reduce patient discomfort and can
6 reduce power imbalance (Eder & Fingerson, 2002; Rose, 2007).

7

8 **Conclusion**

9 Timelines provide the opportunity for flexibility and diversity in the formation of narratives -
10 a way of straying outside the boundaries and thinking creatively - which can be adapted for
11 specific studies. In our study, we demonstrated that there using timeline-facilitated interviews
12 in telephone-based qualitative research is feasible and has value in encouraging a woman-
13 centered approach, enabling women to reflect on and organize their experiences, and giving
14 them control over their narratives. There was considerable depth and insight in the narratives
15 received from our participants in the telephone interviews. There were specific aspects of the
16 data generation process that were altered in the context to telephone (as opposed to face-to-
17 face) interviews with regard to the researcher-participant relationship and ownership of the
18 timelines that need to be considered when using this approach. The use of timelines as
19 elicitation tools within telephone interview studies should be further explored with a wider
20 range of populations to examine the value of these tools and methods in obtaining high-quality
21 data during telephone interviews. We also suggest further research to explore the utility of other
22 visual and creative methods in telephone (and other remote) methods of interviewing.

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