
5-7-2023

Using Timeline Methodology to Facilitate Qualitative Interviews to Explore Sexuality Experiences of Female Pakistani-Descent Immigrant Adolescents

Neelam Saleem Punjani Dr.
University of Alberta, npunjani@ualberta.ca

Elisavet Papathanassoglou Dr.
University of Alberta, papathan@ualberta.ca


Kathleen Hegadoren
University of Alberta, kathy.hegadoren@ualberta.ca

Zubia Mumtaz
University of Alberta, zmumtaz@ualberta.ca

Saima Hirani
University of British Columbia, saima.hirani@ubc.ca

See next page for additional authors

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Recommended APA Citation

Punjani, N. S., Papathanassoglou, E., Hegadoren, K., Mumtaz, Z., Hirani, S., & Jackson, M. (2023). Using Timeline Methodology to Facilitate Qualitative Interviews to Explore Sexuality Experiences of Female Pakistani-Descent Immigrant Adolescents. *The Qualitative Report*, 28(5), 1329-1341. <https://doi.org/10.46743/2160-3715/2023.5822>

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Using Timeline Methodology to Facilitate Qualitative Interviews to Explore Sexuality Experiences of Female Pakistani-Descent Immigrant Adolescents

Abstract

In qualitative research, there is a growing interest in understanding the use of timelines in combination with other qualitative methods. In this paper, we will address how the creation of timelines facilitated and informed the process of semi-structured interviews. We used an interpretive descriptive qualitative study to understand the perceptions and experiences of developing sexuality among female adolescents of Pakistani descent, and timelines were used as a part of the semi-structured interview process. Timelines were created in a participatory way in which girls were asked to recount significant events related to their sexuality. We found that the methodological combinations within qualitative research such as semi-structured interviews and timelines have the potential to advance knowledge regarding the experience of immigrant female adolescents' sexuality. Using the timeline strategy to collect data helped in building rapport with the participants, allowed the participants to become active partners and navigate the process, and helped them to think about future resolutions through reflection.

Keywords

timelines, qualitative methods, immigrant, female adolescents, interviews, sexuality

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Acknowledgements

This study was generously supported by funding from Aga Khan Foundation Scholarship (AKF), Izaak Walton Killam Memorial Scholarship, Women & Children's Health Research Institute (WCHRI), Alberta Registered Nursing Educational Trust (ARNET), and Delta Kappa Gamma World Fellowship (DKG).

Authors

Neelam Saleem Punjani Dr., Elisavet Papathanassoglou Dr., Kathleen Hegadoren, Zubia Mumtaz, Saima Hirani, and Margot Jackson

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Neelam Saleem Punjani¹, Elisavet Papathanassoglou¹, Kathleen Hegadoren¹,
Zubia Mumtaz¹, Saima Hirani², and Margot Jackson³

¹University of Alberta, Canada

²University of British Columbia, Canada

³MacEwan University, Canada

In qualitative research, there is a growing interest in understanding the use of timelines in combination with other qualitative methods. In this paper, we will address how the creation of timelines facilitated and informed the process of semi-structured interviews. We used an interpretive descriptive qualitative study to understand the perceptions and experiences of developing sexuality among female adolescents of Pakistani descent, and timelines were used as a part of the semi-structured interview process. Timelines were created in a participatory way in which girls were asked to recount significant events related to their sexuality. We found that the methodological combinations within qualitative research such as semi-structured interviews and timelines have the potential to advance knowledge regarding the experience of immigrant female adolescents' sexuality. Using the timeline strategy to collect data helped in building rapport with the participants, allowed the participants to become active partners and navigate the process, and helped them to think about future resolutions through reflection.

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Introduction

Qualitative researchers are constantly in pursuit of approaches that will produce in-depth and high-quality interview data. Integrating timelines complements a visual representation related to the experience that can anchor the interview and facilitate focus for the participant on key elements. In the last decade, researchers have focused on using a wide variety of methods to promote participant reflection that might otherwise not be easily expressed in words (Gauntlett, 2007; Kolar et al., 2015; Shirani & Henwood, 2011; Wheeldon & Faubert, 2009). Visual methods such as the use of art-based formats, photographs, films, and drawings have emerged as particularly promising. These methods gained attention in the 1980s and were largely used in the 2000s (Eisner, 1981; Fraser & Sayah, 2011; Heras & T'abara, 2014; Liamputtong & Rumbold, 2008). Timelines are one approach to visual depiction of a life history, where events are displayed in chronological order. While the visual methods are gaining attention, less attention has been given to the use of timelines.

The use of timelines is a graphic, arts-based data collection strategy that is acquired from a graphic elicitation designs framework (Bagnoli, 2009; Sheridan et al., 2011; Umoquit et al., 2008). Timelines are developed from important life events of a study participant, positioned in a sequential fashion, with a visual demonstration of the importance or meaning attached to

a particular event (Berends, 2011; Patterson et al., 2012). The construction of timelines is one method for participants to reflect on the trajectory of their lived experiences. Timelines facilitate recollection and sequencing of personal events, and they are useful for combing the other sources of data to confirm or complete a life history or to place a particular research construct or clinical issue in the context of other events (Gramling & Carr, 2004). Sometimes, timelines for a group of individuals are aggregated to aid the detection of patterns and sequences over time (e.g., Berends, 2011). Timelines can act as a tool to keep participants focused during the interview and facilitate them to better understand the scope of research. Combining visual timelines with narrative interviews can uncover the layers of experiences related to past and present which may not be readily represented through language alone (Gauntlett, 2007; Shirani & Henwood, 2011).

The use of narrative interviews can provoke anxieties when working on sensitive issues with vulnerable populations and can interfere in developing a rapport that can hinder the meaningful engagement with participants (Holland, 2007; Nicholls, 2009). Timeline development in combination with the narrative interviews has the potential to minimize participants' anxiety while sharing the potentially traumatic events or difficult experiences (Hollway & Jefferson, 1997). In recent times, researchers have adopted the timeline approach to understanding the stories of vulnerable youth and young adults on sensitive issues. Examples include exploring inpatient opioid treatment (Monico et al., 2020), studying the resilience of marginalized groups (Kolar et al., 2015), understanding the use of substance abuse and treatment (Berends, 2011), studying the process of weight loss (Sheridan et al., 2011), exploring the influence of financial incentives on clinical behavior (Umoquit et al., 2008), and investigating health equity and people experiencing homelessness (Patterson et al., 2012). The available literature on the use of visual timelines suggests that the combination of narrative interviews and timelines may improve the data collection experience and data quality, particularly when researching sensitive topics or marginalized populations (Berends, 2011; Harper, 2003; Sheridan et al., 2011).

The purpose of our study was to explore the experiences of developing sexuality and their relationship to well-being in middle- to late-adolescence females of Pakistani-descent living in Canada using the interpretive descriptive approach (Thorne, 2016). In our study, the use of timelines facilitated discussions around issues of sexuality in relation to social categories such as race, class, gender, age, and sexual orientation. We propose that timelines in combination with narrative interviews could provide an opportunity for youth to tell their stories on sensitive topics, even when socially proscribed issues are explored, such as the development of sexuality.

Methods

Study Setting, Design, and Recruitment

This study was conducted in a large, urban setting in Canada. A purposive sample of 21 female adolescents who were first- or second-generation Pakistan-descent was obtained via purposive sampling. The call for participation was circulated through recruitment material such as emails, flyers, posters, and social media platforms such as Twitter, Instagram, etc. containing information about the study, eligibility criteria, and researcher name and contact information. Female adolescents who were willing to participate in the study contacted the researcher directly. Additionally, snowball sampling was used as a strategy to recruit female adolescent participants. The interpretive description approach, a qualitative research design, was used to examine and interpret sexuality experiences in female adolescents. Ethical approval for the study was obtained from the Human Research Ethics Board of the University of Alberta.

Particular attention was paid to ethical issues across this study due to the vulnerabilities of this young population and the sensitivity of the topic due to the taboo attached to sexuality-related issues.

Data Collection

After the informed consent process, data were collected using a semi-structured interview guide and a timeline technique. A total of 28 in-depth interviews including follow-up interviews were conducted. An initial ten interviews were conducted in person, organized in a private space in the university, while the other 18 interviews were conducted via the Zoom video conferencing platform due to pandemic restrictions. Each interview lasted 90 minutes on average. Interviews were tape-recorded and transcribed. All the interviews were conducted in the English language.

As part of the interview process, the opportunity to create visual timelines was presented to study participants with a brief explanation of the timeline as an instrument to support better understanding the important life events and experiences of female adolescents during pubertal age. Female adolescents were then shown a few hypothetical sample timelines created by the researcher. The sample timelines were intended to encourage innovative engagement by study participants and to offer them a sense of flexibility in creating their own timelines. Different types of sample timelines were shown to participants comprising linear and nonlinear representations, for example, circular. During the in-person interview, participants were provided with some stationary and cardboard sheets and asked to create their own timelines. For Zoom interviews, participants were provided prior information about the interview process via email, and they were asked to keep A4 size paper and some stationaries to create timelines.

After introducing the study and obtaining informed consent, the participants then participated in interviews and developed timelines. The researcher explained the format of the interview to the participants and started with the timeline activity followed by questions on the experiences of sexuality. As an interviewer, I introduced the timelines to participants as a tool to allow them to start thinking actively about their sexuality experiences and to help the interviewer to better understand their experiences.

Data Analysis

We used a four-phase model of the timeline process to conduct this research (Marshall, 2019). The process includes introduction and process elements, timeline application, immediate reflection, and analysis/reporting (Marshall, 2019). During the introduction and process element phase, we started to have rapport building, introduction of the research, and provided all the details related to study to participants. In the timelining application phase, all the participants were provided flexibility in the interviewing and timeline creation process. Also, continuous verbal consent was obtained during this process. In the immediate reflection phase, field notes were taken and reflection sessions done in order to understand and analyze the diverse experiences of the participants. In the final phase of analysis and reporting, the self-developed timelines and participants' debrief interviews were analyzed and interpretation decisions were taken to report research findings.

Narrative interviews and timelines were thematically coded (King & Horrocks, 2010). The interview data included transcribed narratives of the participants and interviewer reflection notes. Coding of timelines involved analysis of both *content* and *form*. Interviews were coded using NVivo 12 software and timelines were coded manually by hand. The thematic open coding framework was developed to examine how timelines as a tool could assist the researcher

in better understanding the experiences discussed by participants. The thematic coding of interviews and timelines were conducted by one team member first. This initial set of codes was then reviewed and refined by all other team members over the course of several group meetings before consensus on codes was reached.

Findings

Demographic Characteristics of Participants

A total of 21 Pakistani-descent female adolescents were included in the study. The mean age of female adolescent participants was 17 years [standard deviation (SD)=5.2], with ten percent of the participants being in early adolescence (ages 14-15), 33% in middle adolescence (ages 16-17), and 57% were in late adolescence (ages 18-19 years; see Table 1).

Table 1

Demographic Characteristics of Female Adolescents (N=21)

Characteristics		Number (N=21)	Percentages (%)
Age of the participant Mean: 17 Standard Deviation (SD): 5.2	14-15	02	10%
	16-17	07	33%
	18-19	12	57%
Gender	Female	21	100%
	Non-binary	00	0%
Education	Garde 10	02	10%
	Grade 11	05	24%
	Grade 12	08	38%
	Post-Secondary	06	28%
Language	English	21	100%
	Urdu	21	100%
Religion	Islam	19	90%
	Hindu	01	5%
	Christianity	01	5%
Parent's birthplace	Pakistan	17	81%
	Canada	04	19%
Parent's Education Mother Father	None	00	0%
	Less than high school	04	19%
		02	10%
	High school	05	24%
	College	10	47%
	University		
		00	0%
	None	02	10%
	Less than high school	02	10%
	High school	05	23%
College	12	57%	
University			
Length of Stay in Canada	For all life	08	38%
	>10 years	06	28%

	4-9 years	05	24%
	1-3 years	02	10%
	<1 year	00	0%
Any Mental health Issue	Yes	05	24%
	No	16	76%

Unique Approach to Develop Timelines

Female adolescents used distinct methods to create timelines, each in their own unique way. The two prominent styles that they came up with were list-like timelines and continuous timelines. In the list-like timelines, participants defined their life events related to sexuality chronologically. In continuous timelines, participants mentioned the list of years from the time they started experiencing their sexuality to the present, depicting the complex experiences (refer to Figures 1, 2, and 3 to view different types of timelines). After the timelines were created, the participants were able to refer back to events discussed in the timeline during the subsequent interview. Moreover, the participants spontaneously shared contextual details while referring back to their timelines without being prompted, which increased the depth of understanding of their experiences. Regardless of the type of timeline they created, timelines helped in keeping female adolescents' stories central during the interview process and resulted in contextual depth. Also, a few participants initially hesitated to create timelines as they were not familiar with the visual methods, this was overcome through the researcher's encouragement. The researcher's reflection notes showed that more time helped participants to integrate timelines better during the interview process.

Rapport Building

While conducting the thematic analysis of timeline-facilitated interviews, we realized that using the timeline strategy helped us in building rapport with the participants. It also allowed the participants to become active partners and navigate the process and helped them to think about the future through reflection. During the creation of the timeline, participants chose a life story approach where they shared the significant life events, and the interviewer became an active listener of that story. This approach shifted the power dynamic away from the traditional approach of interviews and allowed participants to have more control over the direction of the conversation. For example, when Anum (pseudonym) created a chronological timeline, she mentioned the negative life event of having experienced sexual harassment, for which she did not provide details in verbal interviews. Aligning with the way Anum created a timeline framed chronologically, the interviewer was able to probe questions regarding the experience and coping strategies. By elaborating on the timeline, Anum had primary control over the direction of the interview. Simultaneously, the interviewer was able to gain richer descriptions.

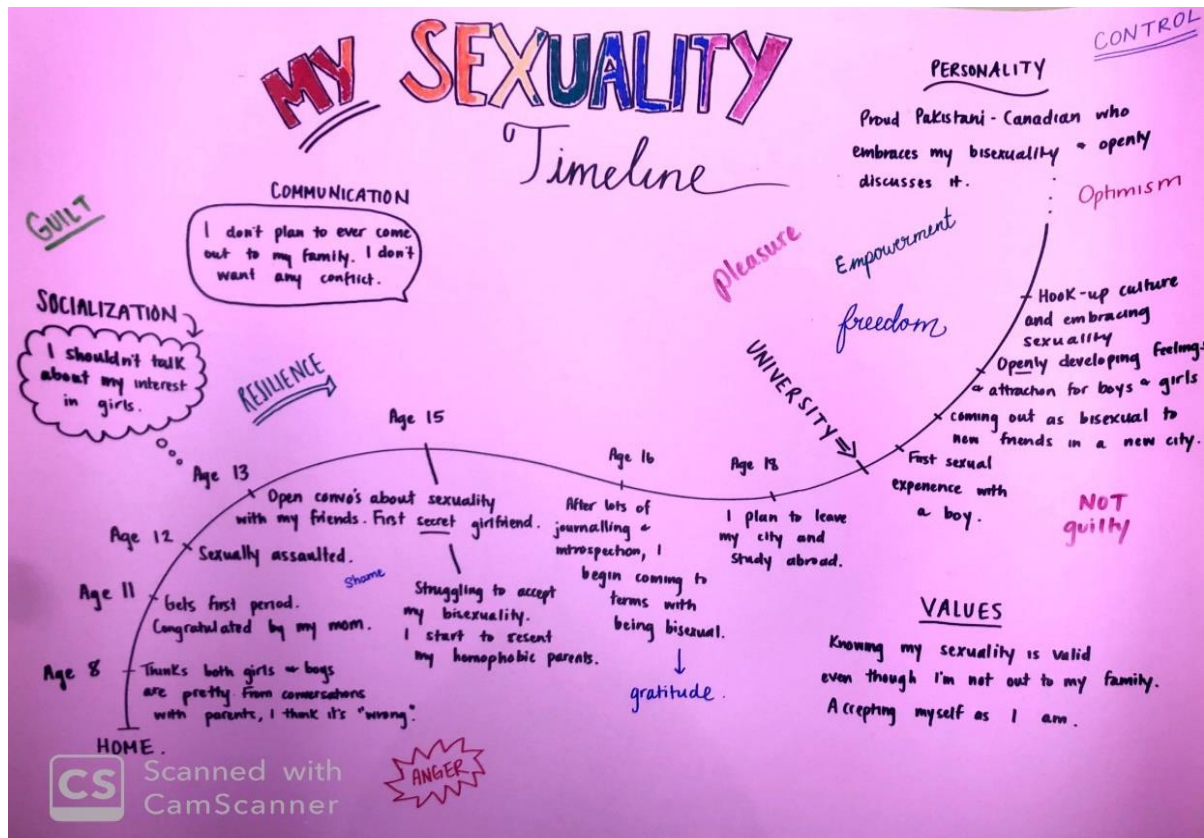
The notion of self-disclosure by the interviewer in showing their timelines helped to build rapport with the participants. For example, when the interviewer started explaining the timeline, the interviewer showed several examples to the participants on how to draw a timeline with hypothetical events. This interaction made female adolescents more comfortable and enhanced rapport building. For example, participants instantly connected themselves with the sample timelines and appeared more comfortable in sharing their personal stories. The interviewer also mentored and encouraged participants to reflect on the major events related to their sexuality in making their timeline. This was followed by the reassurance of not worrying about missing anything as they can always go back and add more details as needed. The

interviewer also facilitated participants in providing ideas as they explain their stories; for example:

Sara: When I was in grade 5, my mother said I cannot attend the sex-education classes, I was feeling sad and angry.

Interviewer: Okay, you can write how you were feeling like “sad” or “angry” in a timeline.

Figure 1
Participant Timeline 1



Participant Engagement

The collaborative nature of the timeline improved participants' confidence in providing appropriate details and expanding on their descriptions. Participants' engagement during the interview process also yielded richer and more complete data. Moreover, the shift of topic strategy helped the interviewer to redirect participants from upsetting situations and to focus on other experiences of sexuality they have as immigrants and how they feel about it, which was the focus of the interview. For example, if the participants became visibly distressed due to any traumatic event, the interviewer used the timelines to subtly redirect the topic and pointed out the positive reflection and strategies that helped them to cope with the situation. This strategy allowed the interviewer to redirect participants away from highly distressing situations while keeping the intended focus of the interview.

Hina: Well, my mom was monitoring me. I started making other accounts, for a bit, I had to ghost my boyfriend [Participant crying]

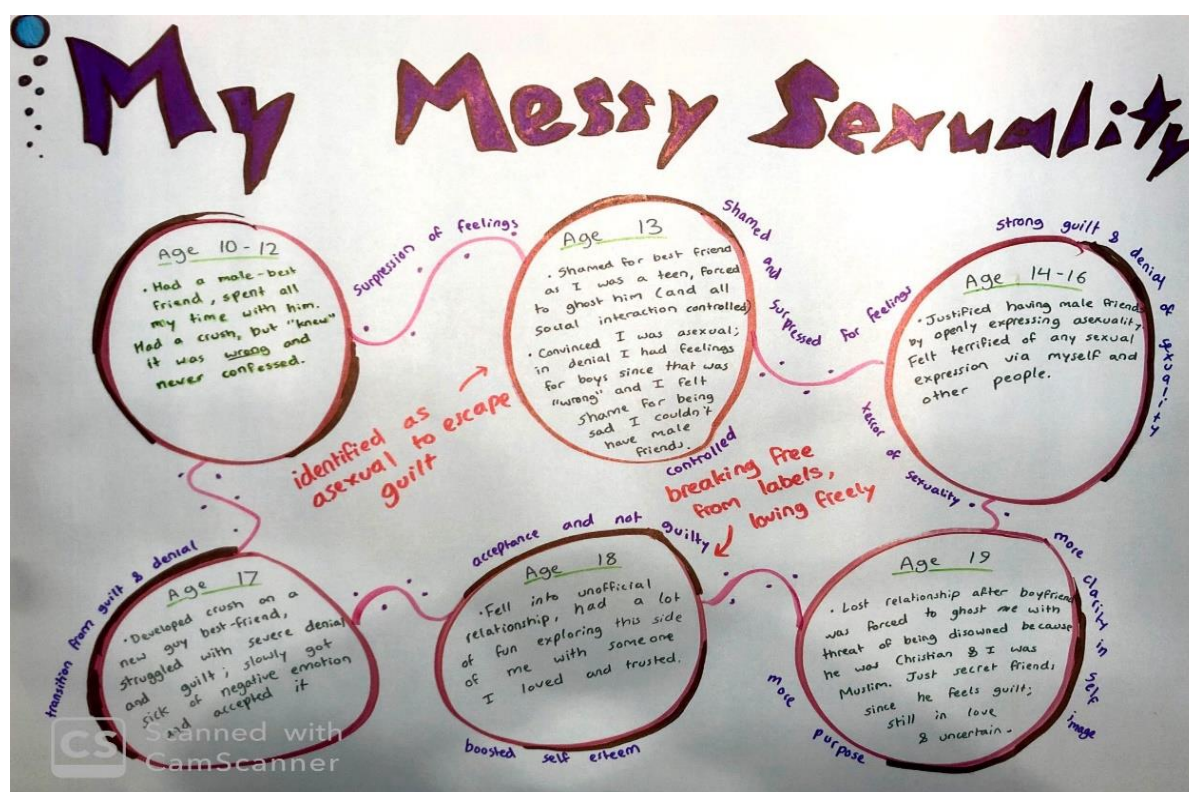
Interviewer: I can see you reunited with your boyfriend [pointing out at the timeline], How did you cope with the situation.

Data Visibility and Transparency

Timelines not only made data visible to both researchers and participants but also facilitated the iterative research process. Timeline development increases participants' engagement through the reflection of a significant life event that they can draw and see on the paper. A participant by the pseudonym Nida indicated, "I have never seen my sexuality through a birds-eye view, this activity [referring to the timeline] is very helpful in reflecting my experiences and how I can make things better in the future."

Figure 2

Participant Timeline 2



The act of reflection and making timelines while breaking down life events in a chronological manner allowed female adolescents to create a sense of direction of what and how much they want to share about their experiences during an interview. This gave participants control over their information and they became the navigators of their content. Apart from the events, the way the timelines were depicted also added richness to the data. For example, participants represented their life events in ups and downs (using dips or spikes) or expressed emotions by adding small diagrams for a particular event and highlighting the feelings attached with each sexuality event, which they made in clouds such as "fear," "stigma," "anger," "regret," etc. (refer Figures 1, 2, and 3). This visual distinction of life events facilitated female adolescents to choose what they were comfortable talking about, and with this, they had the opportunity to take control of the interview content. For example, Reema shared her experience of hiding her sexual identity from their parents due to fear of resentment, and she expressed her emotions in the timeline by making a double sad-faced emoji. The

interviewer also took additional notes during the interview process that provided detailed explanations of key events.

Figure 3:
Participant Timeline 3



Reflection Towards Future Goals

The timelines helped female adolescents to acknowledge both pleasant and unpleasant events they have experienced or are experiencing in developing and exploring sexuality. Timelines also enable these participants to reflect on their future plans. In our study, participants were not directly asked to think about their future plans but some of the participants added resolutions for the future, which facilitated positive closure of the interview. Anita in her interview expressed that "I don't want my parents to control my sexuality anymore, I want to be myself, I am glad I am starting university later this year, it will provide me more independence away from my parents to experience more." The interviewer noted that the female adolescents found the process of making future timelines on a piece of paper to visualize their sexuality to be therapeutic, and this created an enriching emotional shift that offered reflection towards future goals to the participants. As participants mentioned at the end of the interview,

Kinza: I found this activity (pointing towards timelines) very therapeutic; I have never thought about my sexuality in this much detail.

Meena: I never realized I have been hiding and suppressing so much about my sexuality; this reflection (pointing towards timelines) is very therapeutic for my mental health.

Discussion

We provide examples and evidence that the use of timelines in conjunction with semi-structured interviews can increase the depth and richness of data collection in studies involving youth as it helped to navigate personal matters of sensitive and taboo nature. The main advantages that timelines can offer include rapport building with the participants, improving participants' engagement, and ongoing reflexivity through an interactive approach. The development of timelines helped in building rapport among research and female adolescents as they worked collaboratively and iteratively to make the timeline accurately reflect their experience (Chen, 2018; Crilly et al., 2006; Kolar et al., 2015; Sheridan et al., 2011). We found out that female adolescents were comfortable to describe their life stories via timelines, serving as a memory aid and visual guide for them while sharing their narratives. In addition, their timelines assisted in improving the communication and openness of the participants while talking about a sensitive issue. As a result, timelines helped uncover sensitive details and experiences of sexuality that otherwise may have remained unspoken and consequently inaccessible to the researcher (Märtsin, 2018).

The timeline approach helped participants to narrate their perceptions and experiences in a storytelling manner, which helped the researcher to understand their perception of sexuality as they grow from children to adolescents. The researcher encouraged participants' discussion by asking, "What's happening here when you were in grade 7?" or, "This sounds interesting, tell me about this." These prompts helped participants provide more information about the events and the researcher was able to connect the timelines with participants' narratives to facilitate later data analysis. Kolar et al. (2015) has observed that timelining facilitated bringing participants' life stories to the forefront and the complementary contextual richness. The use of narrative interviews while working on sensitive issues or with vulnerable populations can provoke concerns related to exploitative research relationships and can interfere with developing a rapport that can hinder meaningful engagement with participants (Holland, 2007; Nicholls, 2009). Timeline development in conjunction with the narrative interviews has the potential to minimize participants' anxiety while sharing the potentially traumatic events or difficult experiences (Hollway & Jefferson, 1997). Therefore, in qualitative research, thoughtful selection of data collection methods can increase participants' engagement, decrease any undue distress, and facilitate the trusted relationship between researcher and participants (Holland, 2007; Nicholls, 2009). The combination of visual timelines with narrative interviews provides the possibility to address issues like participants' engagement and rapport building, which can increase the visibility of the participants' life experiences.

A primary concern for researchers exploring sensitive topics is to consider emotional trauma or distress among participants (Goodrum & Keys, 2007). This is particularly true when investigating topics like sexuality in a vulnerable population such as immigrant adolescents. The timeline technique helped the researcher to provide a safe and empathetic environment to the participants in sharing their experiences related to sexuality, and also allowed participants to switch to positive aspects of the event or other parts of timelines in case the discussion of a particular event becomes stressful (Horsfall & Titchen, 2009; Osei-Kofi, 2013). The interview approach combined with the timelines provided a safe and supportive space for participants to discuss any traumatic experience like violence, harassment, or rape. Furthermore, timelines acted as a goal-setting tool for the participants and provided them with the opportunity to reflect on their future possibilities related to sexuality. The researcher remained mindful of the emotional distress that could potentially be triggered by sharing difficult or socially unacceptable experiences. At the end of the interview, all the participants were provided with a hotline number where they can talk with a psychologist in the event of stress.

In the exploration of female immigrant adolescents' sexuality, timelines can be interpreted as the life story that is representative of intersections of social structure and individual experience. This approach helped the researcher in carrying out a comprehensive analysis of narratives and timelines. The different types of timelines developed by participants helped the researcher to see temporal relationships and how social structures influence how participants make meaning of the particular event. Similar findings were noted by Patterson and her colleagues (2012) who found that constructing timelines in conjunction with narrative interviews facilitated rich data and allowed them to examine trajectories of events and experiences. The use of timelines allowed for the more interactive interview as timelines remained the central aspect of researcher-participant interaction. Also, participants use timelines as a map to walk the researcher through their experiences and life stories.

We used several strategies suggested by Morse (2015) to ensure the validity of data such as prolonged engagement with participants, thick and rich description, debriefing, member checking, and triangulation. The use of timelines in our study also contributed to the triangulation of research data. Having more than one source of data collection strategy helps in getting a more complete sense of participants' experiences. Multiple data sources such as writing, drawing, and speaking can represent different aspects of the same stories that can be analyzed side by side, thereby creating triangulation for interpretive confirmation (Saarelainen, 2015). During the process of data analysis, the timeline helped the researcher obtain a full understanding of the interviews. Timelines allowed the researcher to compare and confirm immigrant female adolescents' perceptions and experiences of sexuality as they speak to it during interviews. The findings of the current study showed that the implementation of timelines and verbal interviews can inform one another in achieving rigor in a qualitative study (Berends, 2011).

The innovative approach of this research study guided our interest in using the timeline to act as a middle ground between the researcher and participant, giving immigrant female adolescents voices through nonconventional forms of communication by giving them control in directing the interview process using timelines. This data collection approach of using interviews in combination with timelines resulted in highlighting very critical aspects of immigrant female adolescents' sexuality, which usually remains unspoken given the sensitivity of the issues.

We identified few strengths and limitations in using timelines. In this study, the researcher did not plan to ask participants to reflect on the future in the timeline; however, it was noted during the data analysis process that participants found it helpful to make a future timeline to plan for future strategies in exploring their sexuality. Moreover, the use of timelines in our study contributed to the triangulation of research data and uncover novel aspects of phenomenon being studied. One of the limitations that the researcher found was that being physically present during the interview process and during the development of timelines helped in developing rapport with participants. Due to COVID-19 restrictions, most interviews were completed via Zoom, so the researcher was unable to be physically present with the participants while they were making their timelines; therefore, it took some time to make participants comfortable. Future research is needed to explore the full potential of timelines in combination with semi-structured interviews using online interview formats with other diverse groups to guide analysis and interpretations.

Conclusion

Our study concluded that timelines have the potential to supplement interviews in investigating the sensitive, socially sanctioned, and complex phenomenon. The use of timelines in our study provided participants with a flexible and creative space for nonconventional and

nuanced communication of meaning, struggle, emotions, and experience through a graphic depiction of meaningful events. We identified several advantages of using timelines in combination with semi-structured interviews. Timelines helped develop rapport with the participants and engaged them in conversation about sexuality, which is oftentimes otherwise difficult. The use of the visual aspect of timelines gave participants control of the interview process and helped to minimize issues related to the power relationship between interviewer and participants. Additionally, the iterative process of timelines facilitated participants to analyze their past within the context of social and interpersonal environment considering race, ethnicity, gender, and sexual identity and help them envision their future. Timelines show great promise for extending and enriching qualitative interviewing; therefore, more specific research and descriptions of timeline processes, adaptations, and applications are needed to overcome limitations.

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Author Note

Neelam Punjani is a post-doctoral fellow with the ECHO team in collaboration with the AHS Department of Healthy Children and Families. She also works as an Assistant Lecturer at the Faculty of Nursing, University of Alberta. Neelam has a deep passion for promoting positive sexual health outcomes among children and young people using innovative approaches. Please direct correspondence to npunjani@ualberta.ca.

Elisavet Papathanassoglou is a Professor at the Faculty of Nursing, University of Alberta and a Scientific Director, Neurosciences, Rehabilitation & Vision Strategic Clinical Network, Alberta Health Services. Her research interests combine basic science with the nursing management of acutely ill patients. She explores the effects of non-pharmacological, integrative interventions and stress responses in critical care. Please direct correspondence to papathan@ualberta.ca.

Kathleen Hegadoren is a Professor Emeritus at the University of Alberta, Faculty of Nursing. Her area of research expertise is examining factors that increase women's vulnerability for stress-related disorders and psychopharmacology. Please direct correspondence to kathy.hegadoren@ualberta.ca.

Zubia Mumtaz is a Professor at the School of Public Health, University of Alberta. Her research focuses on social determinants of maternal health in the global context, looking at how factors like gender, class, and caste influence health. Please direct correspondence to z mumtaz@ualberta.ca.

Saima Hirani is an Assistant Professor at the UBC, School of Nursing. Her research interests relate to mental health and mental health promotion, particularly for vulnerable and high-risk populations. Please direct correspondence to saima.hirani@ubc.ca.

Margot Jackson is an Associate Professor in the Faculty of Nursing at MacEwan University. Her research and professional interests focus on the area of Child and Youth Mental Health as well as vulnerable populations and community health. Please direct correspondence to jacksonm5@macewan.ca.

Acknowledgement: This study was generously supported by funding from Aga Khan Foundation Scholarship (AKF), Izaak Walton Killam Memorial Scholarship, Women & Children's Health Research Institute (WCHRI), Alberta Registered Nursing Educational Trust (ARNET), and Delta Kappa Gamma World Fellowship (DKG).

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Article Citation

Punjani, N. S., Papathanassogou, E., Hegadoren, K., Mumtaz, Z., Hirani, S., & Jackson, M. (2023). Using timeline methodology to facilitate qualitative interviews to explore sexuality experiences of female Pakistani-descent immigrant adolescents. *The Qualitative Report*, 28(5), 1329-1341. <https://doi.org/10.46743/2160-3715/2023.5822>
