Issues Using the Life History Calendar in Disability Research

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Abstract

Background—Overall, there is a dearth of research reporting mixed-method data collection procedures using the LHC within disability research.

Objective—This report provides practical knowledge on use of the life history calendar (LHC) from the perspective of a mixed-method life history study of mobility impairment situated within a qualitative paradigm.

Methods—In this paper the method related literature referring to the LHC was reviewed along with its epistemological underpinnings. Further, the uses of the LHC in disability research were illustrated using preliminary data from reports of disablement in Mexican American and Non-Hispanic White women with permanent mobility impairment.

Results—From our perspective, the LHC was most useful when approached from an interpretive paradigm when gathering data from women of varied ethnic and socioeconomic strata. While we found the LHC the most useful tool currently available for studying disablement over the life course, there were challenges associated with its use. The LHC required extensive interviewer training. In addition, large segments of time were needed for completion depending on the type of participant responses.

Conclusions—Researchers planning to conduct a disability study may find our experience using the LHC valuable for anticipating issues that may arise when the LHC is used in mixed-method research.

Keywords

Disability; Disablement; Life History Calendar; Mexican Americans

People do not always develop impairment, functional limitation, and disability in a predictable, linear and non-reversible pattern. Instead, people fluctuate in and out of disablement phases throughout their lives. This fluctuation results because disability, or the inability to carry out salient roles due to the social impact of impairment and functional limitation,[1] is a time-dependent phenomenon. Regardless of whether or not researchers use the international classification of functioning, disability and health[2] or the disablement process model to understand disability, variations in conceptual components occur with time. For instance, using the disablement process model theorists define disablement as a preventable path from an injury or pathology in the body to the experience of being disabled. Impairment being the actual injury to or deviation from what is considered normal cellular or organ system(s) function; functional limitation being the inability to carry out physical activities such as running, hiking, talking, or writing; and disability being the

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perceived inability to perform socially salient roles such as being a voter, mother, and/or employer due to a functional limitation. In reality, impairment, functional limitation and disability may stop and start at different times in a person's life, overlapping and reoccurring in a person's life. Given that time dimension is a fundamental aspect of the disablement process, researchers studying disability from a life course perspective,[3,4] may meaningfully theorize as to the nature of fluctuations over time, but have difficulty in finding a tool to measure both the time and meaning of the experience.

One method for capturing an experience and how it progresses with time is the life history calendar (LHC). The LHC is a useful tool for capturing transitions over the life course and can be used as the sole or supplemental method of data collection to capture time spent within phases of disability. In addition, it can also be used as a prompt to encourage the remembrance and discussion of influences on disability related life events and transitions. Given these combined uses, the LHC can be a tool for quantification of time, qualitative exploration of transitions, or both in a mixed-method study. Despite the potential for use in disability studies, few reports discuss this potential in detail. We hope our experience using the LHC will inform data collection in disability studies.[5]

Our experience with mixed-method data collection using the LHC to study women's experiences with mobility impairment provided the opportunity to share the issues that may arise when using the LHC. In this paper we explored the background and use of the LHC in disability research. We examined the epistemological underpinnings of the LHC that lend to its use in different types of studies. Finally, we presented data from our study to illustrate the challenges in using the LHC for the study of mobility impairment using mixed methods situated primarily within a qualitative paradigm.[5] The following section will begin this exploration by providing a brief overview of the LHC.

Background of the LHC

Initial use of the LHC emerged out of a post-positivist need for accurate and reliable retrospective accounts of events and transitions in a linear time format. For researchers with objectivist claims to science who want to study events over the life course, it can be difficult to gather accurate retrospective accounts. The LHC is constructed and administered in a manner conducive to eliciting reliable, sequential data because it is organized using a calendar format to prompt respondent recollection of significant life events and transitions. We focus on the use of the LHC in disability studies and refer readers to articles detailing varied uses of the LHC[6–10] and issues associated with the use of the LHC[6,8,11–13]

According to Freedman and colleagues,[6] a primary advantage of using the LHC is that respondents are provided a structure for remembering transitions and then go through the process of continually contextualizing details surrounding those transitions. In other words, the researcher shares the calendar with the participant while providing prompts to help them remember events that happened during that period of time. This guidance helps the participant pin-point the phenomenon of interest along the axis of the calendar, indicating when the phenomenon started and ended. Further, the LHC allows the researcher to link individual timelines to societal timelines to understand historical influence, which is particularly useful for life course research.[14] The LHC has also been useful to psychological, sociological, and nursing researchers when trying to encourage participants to remember life experiences prompted by contextual cues.

The LHC is also particularly beneficial to researchers because it can be used to gather data on complex phenomenon that participants are less likely to recall and describe in a strict, sequential manner. The complexity of a phenomenon of this nature may not be realized until

its influences are mapped out and described at various points over the life course. For example, Séguin and colleagues[15] used the LHC to ascertain detailed information from the families and friends of persons who committed suicide in an attempt to capture the "burden of adversity"(p.1575) experienced over their life span. In their study, the LHC was used to map the timing of significant life events among participants, in addition to the occurrences of the personal, family, and psychosocial dynamics leading up to their suicide. The researcher can use the LHC by incorporating events into the calendar sequentially regardless of how they may be recalled by participants.

Use of the LHC in qualitative research suggests that the LHC could be used as the basis for an interpretive approach to data analysis. After all, temporal landmarks are known to trigger and structure memories on issues of importance to people.[16] Frequently, different cultural groups use different temporal landmarks to structure their memories, such as relationships and ritual events, therefore using a calendar to help people recall events for qualitative analysis may be useful for entry into conversations with groups who represent different cultures and backgrounds. Harris and Parisi[17] used open-ended questioning as the method for data collection with their LHC in an attempt to capture trustworthy data concerning transitions on and off welfare. The simple comparisons of participants' LHC time dimensions without the interpretive data were considered insufficient at providing an in-depth understanding of why they were or were not receiving welfare benefits. Harris and Parisi[17] discovered that in many cases, the participants' explanation of the factors influencing the receipt of benefits were much different than their own, thus creating the opportunity for subjective interpretation of and insight into the motivations and deciding factors surrounding their transitions on and off welfare. This "panoramic"(17, p.54) assessment provided a unique opportunity for the underlying influences and meanings associated with their welfare transitions to be examined. As well as being a tool useful for interpretation, their data suggested that the LHC is a valuable tool for eliciting discussions with participants on the meaning of transitions.

Less research was available that reported use of the LHC in mixed-method studies. According to Brewer & Hunter,[18] mixed-method data collection is based on the premise that all single methods of data collection are fallible; mixed-methods should be used in a way that highlights the strengths of each method while not allowing weaknesses to overlap. Achieving this balance may require that researchers formulate their questions in a way that is amenable to mixed-method research while having ways available to evaluate and reconcile results in a coherent fashion. It is our suggestion that the LHC uses both the measurement and understanding of time within the phenomenon studied in a way that lends to evaluation and reconciliation.

According to Bryman,[19] mixed methods researchers frequently ignore epistemological issues surrounding data collection and design, opting to take a pragmatic approach to study design. Perhaps a barrier to the use of the LHC in mixed-methods studies is lack of epistemological clarity on how to use the tool. Given that functional limitations are both objectively measured and subjectively experienced, we suggest that varied approaches to understanding functional limitations might provide important information for future intervention work. Hence, the epistemological issues surrounding the use of LHCs in quantitative, qualitative and mixed-method research was reviewed in the next section. Next, we described how the LHC was used as a mixed-method tool for data collection using our study of mobility impairment over the life course as an example.

Epistemological Underpinnings of the LHC

Life decisions and transitions may be influenced by a number of social and historical circumstances.[20] In contemporary research, the LHC has been used mainly as a quantitative data collection tool to document and measure those decisions and transitions. When quantitative researchers use the LHC, they use it as a tool to calculate data on objective time surrounding transitions. When qualitative researchers use the LHC, they use it as a tool to prompt memories for understanding the meaning behind those transitions. Mixed-method researchers may choose to ground their work in either a positivist or interpretive paradigm or they may chose to ignore paradigmatic claims all together in favor of pragmatic concerns. [21] The decision on how to use the LHC is controlled by the overarching study's methodology and purpose. Researchers using the LHC should understand the epistemological interface likely to occur in research situations and be alert to the issues that may arise when attempting to capture a phenomenon.

The primary use of the LHC in a research study will depend on the epistemological perspective guiding the research. Quantitative researchers will find the LHC useful for gathering data appropriate for statistical analysis although this approach may limit the "relevance"[22](p.106) or transferability of study findings to other contexts. Without data describing the circumstances surrounding the transitions, it might be difficult to translate the data to other situations. The time sequencing of events is, however, useful independent of context. For instance, knowing when different groups lose insurance coverage along the life course may provide information on time up to the point when poor health outcomes are experienced.

A qualitative approach to life course research using the LHC incorporates the contexts in which participants' lives unfold; however, this approach limits the call for the objective time data within the analysis. Using the LHC within a constructivist approach to knowledge development reflects the belief that the researcher and the participant co-construct knowledge and personal realities are likely shaped by a number of factors. When using the LHC within a qualitative interview structure, the researcher may find it useful to be able to understand how the experience of certain events in early life governs the decisions and experiences that occur in later life.

Finally, when using the LHC from a mixed-method perspective, both the objective time dimension and descriptive accounts of context may be garnered from the interview. The approach to the data, however, should be consistent with the overarching paradigm behind the analysis and synthesis of the data.[23] For instance, if using an interpretive approach, the meaning of events should lead the analysis while the objective time data should support the interpretation of events -- not drive the analysis. On the other hand, if using an objectivist approach, the numeric calculation of time should lead the analysis and the description of events may only supplement the evidence by providing a context for the sequencing of phenomenon according to time. This becomes clear when examples are provided from an on-going study.

The next section will detail data collection issues in a life course study of mobility impairment. First, the theoretical background for life course experiences with mobility impairment along with how the LHC was used to capture that phenomenon is provided. Next, issues in data collection on mobility impairment using the LHC are discussed from a mixed-method perspective. Finally, excerpts from LHC interviews are presented to demonstrate its use in a disability study.

Mixed-Method Example: Capturing Disablement over the Life Course

Within the life course paradigm, aging is viewed as a process of changing events and socio-cultural meanings across time within the historical and cultural context of a cohort.[24] The life course paradigm incorporated four distinct areas of social life that when brought together comprise a life course view of aging. The four elements, which make up the paradigm, are: 1) lives in time and place, 2) human agency, 3) the timing of lives, and 4) linked lives.[3,25] The major point to remember is that the life course is more than time. Given that aging is not viewed as pure chronology, but as both meaning and time, it implies the need for a mixed-method approach to understanding a developmental phenomenon, such as the progression of disability.

Disablement, based upon the work of Nagi[26] and Verbrugge and Jette,[1] is an avoidable path from a bodily injury or pathology to the experience of disability, which is the perceived inability to perform socially salient roles such as being a volunteer, mother, and/or manager due to a functional limitation. When disability is viewed from a life course perspective[3,4] it has trajectories and transitions that occur over time. The transitions are influenced by meaningful events set within a historical context. Although a person may have impairment starting at one age, functional limitation related to that impairment may come and go over the life course. This is also true for disability, which may or may not be a direct result of impairment over the life course. Most research documents age of onset of functional limitation and disability as though they are fixed phenomenon, but they are not.

With the time dependent nature of disablement in mind, data from a sample of Mexican American (n=54) and Non-Hispanic white women (n=51) ranging in age from 55 to 75 participating in a mixed-method study of disablement over the life course will be presented. To date, a total of 351 interviews have been completed. The purpose of the study was to understand both the timing and the meaning of disablement in order to capture reasons for health disparities. Interpretive accounts of the meaning of the phenomenon, supplemented by objective accounts of degrees of impairment and time spent in different phases of disablement, was the focus of data collection using mixed methods. The degree of impairment was collected with demographic and health data questionnaires prior to the interviews. Typically, the data collection on time and meaning of mobility impairment required four interviews: one to collect time related data with the LHC and three to understand the *meaning* of mobility impairment. The first interview was usually dedicated to gaining demographic and LHC data. The LHC interview was a semi-structured interview on levels of impairment, functional limitation, disability and specific influences on disability over the life course. The LHC was used primarily for providing information on time spent in various phases of disablement, but the LHC also provided a framework for interpreting the intersections between phases of disablement and the biological, psychological, and socio-cultural factors that influence the disablement process. Completion of the LHC, however, was only one aspect of data collection; the core data describing the cultural meaning of disablement was gained using three multiple open-ended, conversational style, topical-biographical interviews. In this way, data collection was mixed-method using questionnaires, semi-structured LHC interviews and open-ended conversational style interviews.

Specifically, during the first interview, the principal investigator gained informed consent, as well as demographic background, and survey questionnaires on disablement. Next, the PI interviewed each woman using the LHC as the framework to capture data about the processes of transitioning from one state of disablement (impairment, functional limitation and disability) to another state in the context of a specified time frame. For each woman, the LHC was designed to study disablement over the period ranging from their birth to present.

Figure 1 is a representation of one section of the LHC tool. The domain of the study was placed on the vertical axis of the LHC while time was recorded on the bottom along the horizontal axis. During data collection, an (x) was placed in the calendar to document the beginning and possible ending of impairment, functional limitation and disability. These periods began and ended at multiple times throughout the women's lives. Explanatory notes were then written to document details on the domains and the transitions, which could be referred to later to help understand the context. If the LHC was not completed during the first interview, then the LHC interview continued into the next interviews until completed. The results of the LHC, which included actual time in months as well as percentage of their lives spent in impairment, functional limitation, and disability, were entered into a data sheet for entry into SPSS 18.0.

The next three meetings were scheduled to complete the LHC (if needed) and the topical biographical interviews. The interviewer placed notes on the LHC during the first meeting to use as prompts when the audio-taped topical biographical interviews were done later to ensure that certain salient events were discussed in-depth. Prompting memories with a LHC or similar tool has been particularly useful in life course studies by the PI (_) because women were prompted to remember events prior to telling their stories.[27,28] This ensured a higher level of trustworthiness because the LHC could be referenced prior to, during, and after subsequent topical biographical interviews to guide the interviews and analysis and to provide multiple data sources for analysis of events.

The challenge for mixed-method interviewing was the difference in philosophical approach to interviewing when using both semi-structured and conversational style interviews in one study. Interviews were co-constructed accounts of events for which both researcher and participant were responsible. When undertaking an interview, informal rules were negotiated between the researcher and interviewee as to how they related to one another. In semi-structured interviews, the researcher has more control over the data collection process while in open-ended conversational style interviews the participant typically has more control than in the semi-structured interview. Overall, given that our study was driven by a constructionist, interpretive epistemology, an open-ended conversational style drove overall data collection. This resulted in variations in how the LHC was completed because philosophically the data was co-constructed information amenable for interpretation and control of content was given to the participant whenever possible. It is suggested that if objective post-positivist epistemology drove data collection, the LHC interviewee could be pressed to stay within an objective format but that was not the case in this study. During completion of the LHC some women explained transitions and influences on disablement in great detail. Time was always given for the women to complete those explanations when they arose. Our study revealed three variations in how women responded to the LHC questions and the time needed to complete the LHC varied. The first type of LHC interview was the linear interview, which was undeviating in nature. The participants seemed comfortable with the semi-structured questions that required they answer with objective, goal oriented responses. Questions were asked about the onset of impairment, functional limitation, and disability and answers were given in a succinct and linear format. This resulted in a relatively quick completion of the LHC, usually within 1.5 hours. The defining characteristic of the linear interview was the clear, sequential progression with concise answers. The linear data collected provided a common understanding of events and made future interviews on the meaning of experiences easier to understand. Theoretically, these typify how LHC interviews might progress.

The second type of LHC interview was open-ended and conversational in style. These ladies were waiting to tell the researcher about an event as soon as she (_) walked in the door. The researcher had little time to get out the recorder and obtain consent before the participant

told the researcher what happened to them during an event. The reporting of events were usually out of chronological sequence and thus more non-linear in character. They were episodic stories. Participants typically answered LHC questions only after they told the researcher about other events. An exemplar of this interview type follows. No questions were asked.

P We've been diabetic 20 to 25 years, so it's not something that came with the immobility, it came before that. How? Why? I have no idea, because we were not, we didn't, we were not at this weight that we are now. We were, we were mobile, we moved, we walked, we did all kinds of things and we got, we became diabetic. And then when we became diabetic other issues started coming out for them, for all of them they've had high blood pressure; they've had cholesterol problems, and all those kinds of things. So thank God I, I have not. But, but the immobility, the ability, the, the inability to do what you wanna do. "Oh, I wanna climb those stairs. Oh God, that's the only way I can get up that way, is to climb up those stairs." Well, I can't climb those stairs. And if you try, you'll end up paying the price, you know? So you know you know what's gonna happen. So you either decide am I stupid or am I stupid? And so that's how we give up a lot of the things because we know we pay the price of the pain. And what can you take to relieve that pain? Nothing really, nothing. Because a pill won't, the pill doesn't work, you know? It does not work. So for me, I'm looking forward to that, to that laser and, and, and having lasers out there in the malls and that kind of stuff where they can give you, it's like a 3 minute thing, you know? It's like a 3 minute thing. You penetrate 6 inches and it, it restarts the, it starts the circulation. And where there is good circulation, there is healing, you know?

Participants, who approached the initial interview from a broader perspective, were always capable of answering the LHC questions but, as suggested earlier, were eager to share other information with the researcher. Upon greeting, these participants generously provided detailed description of an incident concerning their health. This interview format required flexibility on the part of the researcher, setting aside the researcher's own agenda to complete the LHC. The participant who provided non-linear interview data was usually unable to complete the LHC in one meeting during our study. At the end of data collection, all participants provided complete data, but other episodic stories of importance to the participant were relayed to the researcher prior to completion of the LHC.

The final type of LHC interview type was linear in nature with additional pertinent data provided. During these interviews, participants answered the LHC questions but each question triggered a story with considerable context. LHC completion required two to four interviews, which then became LHC/topical biographical interviews in a combined format. These participants jumped around in time when they told their stories to the researcher so that the result was a mixed linear and non-linear interview. The women always returned to the question asked initially. The following interview excerpt illustrates participants who tended to remain in chronological order while providing extended descriptions of her answers.

TH During this [period of your life] 43 to 45, after this has happened, were you out of work?

P No I came straight back to the job. They were holding my job.

TH For three months though? You were, during rehab?

P Rehab and the hospital. Right. And when I came back to work, I came back to work as close to full-time as I could until they could get my office all set up so that I could get

around in a wheelchair and that sort of thing. But no, I came straight back to work. Of 'course I was useless for a while cause my brain still wasn't banging on all cylinders yet.

So uh. They were. They were holding the job for me because I had been a whistleblower and it was the whistle blowing that precipitated the stress that led to the stroke. So when that happened. See I'm, I'm hard driving. I'm Type, I'm sorry. Uh so when I got back into the office, they didn't really have any choice to hold my job for me 'cause it's against the law to fire a whistleblower. And so, you know, it. I made it real clear if they did fire me I was going to drag them all through the courts and all through the front page of the paper and so it was real easy to keep my job. Yea. Blackmail works every time.

TH So did you. I mean. That takes a lot of thought though, at a very hard time. I mean, to think yes I need to protect my job and I need to make it clear that…so that's hard.

P It's safe to say that I am what I do. And if you take away my job, you take away my life. So that doesn't happen. Never been fired. I had quit in anger and burned a bridge that I'd wished I never burned, but you know, that what teaches you, you know, don't do it that way.

TH Right.

P But no. I am what I do. So. So. I was focused totally on getting back to work. In fact, if I could have left the hospital earlier, my just doctor wouldn't let me.

Participants who engaged in this type of interview provided short chronological answers to the interview questions but also explained in detail the reason for their answers, which was not interrupted nor discouraged. All of the information provided was important to gaining insight into their disablement experience and each participant was encouraged to discuss this topic more during the topical biographical interviews. If the researcher were only interested in the time dimension of disability however, the detailed responses would not be necessary. Very rich descriptive data combined with objective time sequencing of events resulted from this type of interview with the LHC, making it useful for mixed-method analysis from an interpretive paradigm.

Despite challenges to gaining the objective time data within mixed-method studies from an interpretive perspective, the LHC data can be objectified and used as proposed. In Table 1, data is provided from the LHC detailing percentage of life in phases of disablement. The trustworthiness of this data is supported with the data in Table 2, which summarizes the mean number of years with a functional limitation and a diagnosed illness. Table 2 data comes from the questionnaire that asks at what age they were when they lost the ability to do many things they would like to do and at what age they were when they were diagnosed with an illness. In both the LHC data and the questionnaire data, the Mexican-American women had fewer years of impairment and functional limitation than the Non-Hispanic White sample. Unique to the LHC, these numbers were calculated by combining all the various times in the women's lives when they experienced impairment and functional limitation—not just time since onset of a typically disabling condition. The LHC, however, offers much more detailed information than what is found in the demographic questionnaires. For instance, events coinciding with the development of the disability are found in the LHC.

The integration of the data to support thematic analysis can be exemplified using findings from a case study analysis.[29] The thematic results of data from a Mexican American woman were labeled 'Shifting social and cultural expectations'. This theme exemplified how the woman shifted her expectation for role performance within her social cultural environment based on her physical function over the life course. The 74-year-old Mexican American

woman stated, "I know that is a must that you should get up [in church]. But I end up...people know me there, they know if I don't get up it's because I just can't." The LHC time sequence data supported the shifts in the meaning of her functional limitations as it related to her role performance during the disablement process. Although 40% of her life was spent with a diagnosed illness, only 14% of her life was spent unable to perform her roles; the functional limitation was sporadic during that time period and did not always limit her role performance despite diagnosed illness until later in life. Again, these numbers do not mean that she had an illness since age 44 that became a disability at age 64. It means that over time she had three major time points where impairment led to disability for a total of 14% of her life. The expectations for role performance shifted over time as her functional limitation was more or less severe.

Discussion

We know of no other tool that allows researchers to collect data on phases of impairment, functional limitation and role disability over the life course. This makes the LHC a uniquely valuable tool for studying disablement. There were, however, challenges that made the LHC more time consuming when using it during our mixed-method study. Those were detailed using the three types of participants that we encountered. This is by no means an exhaustive list of challenges that might be experienced.

It is our position that the study of disability with the LHC is feasible using multi-methods within a life course approach. It is suggested that the issues experienced using the LHC may inform the use of the LHC in other disability studies. Researchers may find that data gathered via the LHC may provide a more detailed picture of the disablement experience than cross-sectional disability data. In addition to the onset of impairment, LHC data is able to show how role disability and functional limitations change over time given role expectations such as wife or motherhood.

Currently the research literature provides little guidance on mixed-method data collection[19] and ways in which the LHC is used may provide some initial guidance in mixed-method research. According to Brewer and Hunter,[18] mixed-method studies must begin with the research question and all methods should be theorized from this starting point if evaluation and reconciliation of findings is to be actualized. In this effort, we provided the epistemological back ground and theoretical perspective for the study of disablement using the LHC.

It has been asked if it is necessary for methods in mixed-method research to be linked by paradigms.[30] Some researchers might suggest that regardless of the epistemological approach the same type of problems would be faced when using the LHC and reacted to in the same manner as we specified. It is our position that when collecting data using the LHC, choosing a paradigm was necessary and we followed the guide provided by Morse and Niehaus.[23] This allowed the researchers to make necessary decisions for the approach to data collection. Being aware of the issues prior to using the LHC is of particular importance for mixed-method researchers because it may alter the specific interviewer skills needed. Although the LHC has been used with multiple groups, researchers have not reported what interviewer skills are needed in mixed-method application of the tool. It is our suggestion that the skill of the researcher should coincide with the overall epistemology that drives the larger study.

In our study, an interpretive paradigm influenced mixed-method data collection resulting in specific consequences. The paradigm had practical importance. More specifically, in using an interpretive approach to research design, the narrative exchange of information was

encouraged even while collecting data on objective time transitions. The literature revealed limited information on how use of the LHC impacted the interaction between the interviewer and the participant during data collection. Brief mention was made by Harris and Parisi[17] in their study of welfare transitions when they suggested that use of the LHC improved the interaction between study participants and researchers. They indicated that participants stated that the LHC format helped them feel more at ease and it promoted a general feeling of pride in their ability to remember and provide personal life histories when prompted by the interviewer. This interaction often times fostered mutual respect while lessening anxiety and annoyance on both sides of the research relationship.

It has been suggested that illness narratives are a way that people negotiate their moral standing in the world.[31] The interview encounter is laden with ethical judgments that may influence the response of participants to the researcher.[32] We suggest that approaching the encounter from an interpretive perspective while simultaneously attempting to objectively control the interview content might interrupt that disclosure process, especially if moral standing is in question within the interview encounter. Our solution was to approach mixed-method data collection purely through the interpretive paradigm while collecting objective data on time related phenomenon.

Researchers might plan for training team members regarding the proper use of the LHC depending on the overall design of their study. Interviewers might need to learn the skills needed to ensure that participants complete the LHC within a designated timeframe if they are using an objective approach to data collection. Or they may need to learn skills in flexible interviewing that still enable trustworthy data collection. We offered knowledge on three different ways interviews were constructed using the LHC as a tool within a mixed-method study. These are important to be aware of prior to using the LHC because variations in interviewer skill and time are needed. In the interest of time and resources, researchers planning to use the LHC may want to consider the amount of interviewer training required that encourages a heightened sensitivity to respondent preferences.

Conclusion

This report was meant to provide practical and theoretical knowledge on use of the LHC from the perspective of a mixed-method life history study of mobility impairment situated within the qualitative paradigm. Our use of the LHC may be beneficial to researchers in the design phase of a disability study who wish to anticipate issues with use of the LHC. Researchers should be able to balance the types of data collection needed set within the paradigmatic constraints with the types of interviews that evolve from the associated interview encounters.

Acknowledgments

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Domains & Sub-domains	Notes	Age (years)																			
		46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65
Impairment	Residual effects of early onset Polio	●————————————————————————————→																			
Impairment	Hearing impairment in right ear													●———————————————→							
Functional Limitation	Decreased walking/climbing stairs, weakness, unable to hear,													●———————————————→							
Disability	No longer able to work; Leisure time activities decreased;													●———————————————→							
Role	Teacher	●————————————————————————→																			
Role	Wife/Mother	●————————————————————————————————————→																			
Functional Limitation	Paralysis of right arm	●————————————————————————————————————→																			

Household Family Size _4_
Family members _Spouse, self, 2 kids_
Own home _Yes_
Language preference _English_
Accommodations used _None_
Health Insurance _Yes_
Education during this time period _0_
Approximate Weight _140_ by Age 65
Approximate Height _5'6"_ by Age 65
Health problems _lost hearing in right ear, tinnitus, early onset polio_
Employed _Yes, but retired in 1992 (stopped work at age 58)_
Menopausal _60_
Age at last menstruation _60_

Domains & Sub-domains	Notes	Age (years)											
		66	67	68	69	70	71	72	73	74	75		
Roles	Wife /Mother/ Grandmother/ Friend with social club	●——————————————————→											
Impairment	Infection in Caribbean, left hospitalized						→						
Impairment	Post-polio syndrome, hearing impairment	●————————————————→											
Impairment	Ischemic colitis, breast cancer, neurogenic bladder with frequent UTIs	●————————————————→											
Functional Limitation	Impaired balance, steps with difficulty, decreased dexterity in hands, hearing loss, fatigue	●————————————————→											
Functional Limitation	Self-catheterization every 3 hours				●——————————→								
Disability	Unable to work; limited leisure time activities; decreased housekeeping	●————————————————→											

Household Family Size _2_
Family members _Self and spouse_
Own home _Yes_
Language preference _English_
Accommodations used _cane for balance outside, bag & catheters, massage therapist, stretches_
Health Insurance _Yes_
Education during this time period_0_
Approximate Weight by current age _150, highest weight was 172 at age 73("felt worst")_
Approximate Height by current age _5'5"_
Health problems _HTN, high cholesterol, breast cancer, ischemia colitis, early onset polio with subsequent post-polio syndrome, hearing loss, frequent UTIs, infection during Caribbean trip_
Employed _No_
Menopausal _Yes_

Figure 1.
Completed Life History Calendar, Age 46–75

Table 1

Time Dependent Data from Life History Calendar[**]

	None-Hispanic White (n=27)				Hispanic (n=41)			
	Mean	Stdev	Minimum	Maximum	Mean	Stdev	Minimum	Maximum
Percent of impairment in entire life	62.7%	26.02%	22.00%	100.00%	51.6%	29.93%	2.00%	100.00%
Percent of functional limitation in entire life	50.9%	29.03%	8.00%	100.00%	39.3%	29.44%	0.10%	98.00%
Percent of disability in entire life	32.7%	24.98%	7.00%	90.00%	20.1%	21.75%	0.00%	93.00%

[**] Non-Hispanic White = 27, Hispanic = 41, Total = 68

Table 2

Age of Disability and Illnesses Onset

	None-Hispanic White		Hispanic	
	Mean	**Std.Dev.**	**Mean**	**Std.Dev.**
Respondent age when lost ability	46.0	14.0	51.0	15.9
Respondent age when doctor diagnosed the illness	41.5	16.4	40.5	17.7