

# Shattered childhood: Experiences of polio survivors in Finland 1950s and 1960s

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## Abstract

**Aim:** To describe the childhood experiences of patients with polio from the acute phase of the disease during post-war Finland in the 1950s and 1960s.

**Design:** Qualitative empirical study based on self-reported history of nursing rooted in the past, a history of experiences.

**Methodology:** Interview materials were gathered in the form of themes (45) and written interviews (4) (29 September 2018 to 30 June 2019). Data were analysed by reflexive thematic analysis to highlight hidden and latent experiences. This approach generated the study's main theme, themes and subthemes.

**Results:** The main theme, 'shattered childhood', generated from the study results and was then divided into two themes, both of which were influenced in part by the loss of a familiar childhood, the changed environment, the breakdown of the body and the absence of control. Through their childhood memories, polio survivors described their broken childhoods using the following themes: 'betrayal by their bodies' and 'isolation'. In the narratives, the theme 'betrayal by one's own body' was generated by the following subthemes: 'suddenness of the affliction', 'paralysis' and 'being moved to the hospital'. The 'isolation' theme developed from the subthemes 'isolation from the body and surroundings' and 'emotional and social loneliness'.

**Conclusion:** Polio survivors' experiences during the acute stage of the disease were traumatic and demonstrated children's inferior nursing position in Finland in the 1950s and 1960s.

**Impact:** The study increases our understanding of the history of caring for children and families who were affected and disabled by polio and the importance of their experiences in society and healthcare settings.

**Patient or Public Contribution:** The authors collaborated with the Finnish Polio Association to recruit study participants and plan the study. Patients with polio during childhood underwent interviews, and their experiences formulated the data, which were analysed and the basis of the results.

**Reporting Method:** Consolidated criteria for reporting qualitative research (COREQ), a 32-item checklist for interviews and focus groups, have been used as a reporting and checklist tool. All authors have agreed on the final version and the use of the COREQ

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criteria, relationship with participants, theoretical framework, setting, data collection and data analysis and report.

**KEYWORDS**

caring, childhood, experiences, nursing, oral history, polio, polio victims, poliomyelitis

## 1 | INTRODUCTION

Polio is a disease caused by an RNA virus that spreads from person to person through physical contact or droplet infection via the gastrointestinal tract before entering the bloodstream. Its symptoms include fever, headache, fatigue, a stiff neck or back and pain in the extremities. The virus may also destroy the nerve cells and cause paralysis of the extremities, difficulty swallowing and breathing muscle paralysis. Polio has no medical cure, but it can be treated. Vaccination is the most effective means of prevention (Altenbaugh, 2015; Khan, 2010; Oshinsky, 2005; Trevelyan et al., 2005). Polio still occurs in some regions of Asia and Africa (World Health Organization, 2021).

At the beginning of the 1900s, polio spread in North America and Europe and caused the worst epidemics before the Salk vaccine in 1955 (Altenbaugh, 2006; Nathanson & Kew, 2010; Rutty, 1996). As was the case in North America (Rutty, 1996; Trevelyan et al., 2005), infections in the Nordic countries peaked between the 1940s and 1950s. More than 34,000 infections were reported in the United States in 1955 (Gensowski et al., 2019) and 9000 in Canada in 1953 (Rutty et al., 2005). In Europe, the disease spread in Denmark with >5600 reported cases in the mid-1950s (Gensowski et al., 2019), whereas 790 people were diagnosed in Finland in 1954, 632 of whom were paralysed (Muiluuvuori, 2010). In Finland, a vaccination campaign did not begin until 1957. Finland's national vaccine programme eventually eradicated polio in the 1960s. In 1984, Finland saw a resurgence of the disease, and the last case was reported in 1985 (Finnish Institute for Health and Welfare, 2019. <https://thl.fi/fi/web/infektiotaudit-ja-rokotukset/taudit-ja-torjunta/taudit-ja-taudinaiheuttajat-a-o/polio>).

## 2 | BACKGROUND

At the start of the 20th century, polio cases began to multiply in North America and Europe (Aitken et al., 2004; Rutty, 1996; Trevelyan et al., 2005). The disease spread suddenly, and the mode of transmission was unknown; however, poverty and contaminated water were believed to be the chief culprits (Carter, 2001). Polio symptoms included a stiff neck, fever, nausea and debility. Some patients with polio became paralysed, whereas others experienced fatal respiratory failure (Altenbaugh, 2006; Carter, 2001; Wilson, 2005). Because diagnosing polio was challenging as its origins and mode of transmission were not yet fully understood, it stirred up hysteria and fear (Carter, 2001; Rutty, 1996; Wilson, 2005). In the 1930s, it was discovered that the infection was spread via the nose and mouth, much like influenza. This was an important breakthrough from the standpoint of developing a

vaccine (Oshinsky, 2005; Wilson, 2005). Polio vaccine studies began around 1910 in the United States but did not bear fruit until the 1950s, when the first human trials began. Although the vaccine was tested mainly in the United States and Canada (Oshinsky, 2005; Rutty et al., 2005), about 20,000 Finns were also included in the study. In 1954, Finland's vaccination programme focused on Helsinki and especially the eastern part of it, where the disease was most prevalent. Dr. Salk's 1954 vaccine was instrumental in ending the epidemic. The next vaccine was invented by Dr. Sabin in 1962 (Muiluuvuori, 2010; Oshinsky, 2005; Rutty et al., 2005).

When children or teens were diagnosed with polio in the 1900s, it meant immediate isolation from family and friends. Some patients with acute-stage polio were isolated at home (Altenbaugh, 2006; Shell, 2005; Wilson, 2005) during the entire acute phase, when the risk of contagion was highest. The disease was painful because it damaged and destroyed the nerve cells in the spinal column and could even cause paralysis. Its acute stage lasted nearly 2 weeks. Thereafter, patients began the difficult rehabilitation phase, which could take from a few weeks to years and depended on the extent of damage the virus had done to the patient's body (Altenbaugh, 2006; Wilson, 2005). Young polio survivors' physical, psychological and social suffering were not acknowledged, nor were childhood experiences sufficiently examined from a nursing perspective (Altenbaugh, 2006; Highley, 2016).

## 3 | THE STUDY

### 3.1 | Aim

This study aimed to describe the childhood experiences of polio survivors in Finland in the 1950s and 60s during the acute stage of the disease. It is part of a broader study on polio victims and their families in Finland. In this paper, the acute stage refers to patients' experiences from the onset of symptoms and being diagnosed to isolation. This study also aimed to increase our understanding of the history of caring for children and families who were affected and disabled by polio and to broaden our understanding of polio survivors' history and their current experiences to date as a client or patient.

### 3.2 | Design and participants

This qualitative empirical study was conducted based on a verbal history of nursing rooted in the past, a history of experiences.

A total of 49 people diagnosed with polio during childhood participated in this study (interviewing dates 29 September 2018 to 30 June 2019): 45 were interviewed and 4 provided written accounts of their experiences based on the study themes provided. The study participants consisted of 32 women and 17 men, and their ages ranged from 66 to 80 (mean 72) years at the time of the interview.

Thirteen of the study participants were under the age of 3 years when diagnosed with polio, whereas 15 of them were between 3 and 6 years old. The ages of participants 17, 2 and 1 ranged 7–10 years, 11–14 years and 15–16 years respectively. One participant was unsure of the age of disease onset but was estimated at between 15 and 16 years based on written background information. Overall, 13 participants remembered falling ill, whereas six did not remember getting the disease, although they recalled receiving hospital treatment during the acute phase of polio ( $N=39$ ). This lack of recall was largely due to the respondents' ages at disease onset. Participants who were aged >3 years when they contracted the disease were able to describe their experiences while receiving acute stage care, whereas those who were younger than 3 years described what they had been told by family members. Their recollections were accepted for use in the study because they were similar to narrations based on personal experience.

### 3.3 | Theoretical framework

The goal is to recall events that occurred in the past and reveal the significance that people attach to past experiences (Fingerroos & Haanpää, 2012). The memories of polio survivors also contained echoes from other life stages, such as their youth, adulthood and late adulthood. Memories, recollections and their narratives are therefore tied to the life phases of the study participants (Boschma et al., 2008; Thompson, 2009).

This study is based on the childhood theory (James et al., 1998) and trauma theory (American Psychiatric Association, 2000; Hart, 2021; Paivio & Pascual-Leone, 2023). It focuses on the idea that a child is socially constructed and belongs to several social communities, such as their families, after-war generation, agricultural growth environment and habits, school communities and eventually to hospitals and the nursing culture (James et al., 1998). In this study, polio survivors also experienced a lack of trust, loss of family contact and abusive and neglectful care. Loneliness played a major role during the acute phase of the illness, which might cause trauma to polio survivors and result in feelings of guilt and shame (Hart, 2021; Paivio & Pascual-Leone, 2023).

### 3.4 | Data collection

A combination of thematic and dialogical interview methods was used in this study (Boschma et al., 2008; Shopes, 2011). In this

study, the dialogical interview method means that the participants were asked to gather meaningful objects related to past events before the interview, including photographs, diaries, newspapers and magazines and other memorabilia. During the interview, both the researcher and the participant looked at the photos, objects, newspapers or other items that held meaning for the participant, which facilitated easier recall of past experiences and triggered sensory memory (Denzin, 2001; Kvale, 2006; Tanggaard, 2009). The interview themes were background information about the participants and their families, childhood, and family life before falling ill; hospital care during the acute and recovery stages, return home, impact of their illness on their families and family support. This report focuses on childhood experiences of disease and the treatment received during the acute phase (approximately 2 weeks) of the disease.

The researcher called prospective participants and explained the nature of the study and the themes of the interview. Each participant received both oral and written information about the nature of the study. During the interview, if the interviewee wished, a relative or next of kin could be present. The interviews always ended with the present moment and positive life events. The researcher verified the mental state of the participants and was prepared to refer the study participants to healthcare practice if necessary. Each participant was allowed to talk about and share their experiences. This is also a sign of mutual trust and empathy during interviews (Strandèn, 2009).

### 3.5 | Data analysis

The primary study material, that is, interviews and transcriptions of participants' interviews, was reviewed using reflexive thematic analysis (Braun et al., 2022; Braun & Clarke, 2006; Clarke & Braun, 2020), allowing the collection of collective and subjective experiences. The reflexive thematic analysis was used to interpret the data, as well as to find out the latent meaning after semantic reading. In reflexive analysis, researchers place their own role and experience in an active dialogue with the research material. The analysis steps were familiarization, coding, generating initial themes, reviewing and developing themes, refining, defining and naming themes (Braun & Clarke, 2006). The main theme, themes and subthemes were conceptualized and shown in Figure 1.

### 3.6 | Ethical considerations

The study complied with the guidelines for responsible scientific procedures laid down by the Finnish National Board on Research Integrity (TENK) and its ethical guidelines for the study with human participants and ethical review in Finland (Finnish National Board on Research Integrity TENK, 2019). Relevant study permits were obtained for the study, and a preliminary ethical evaluation was requested from the Tampere Region Ethics Committee in 2018

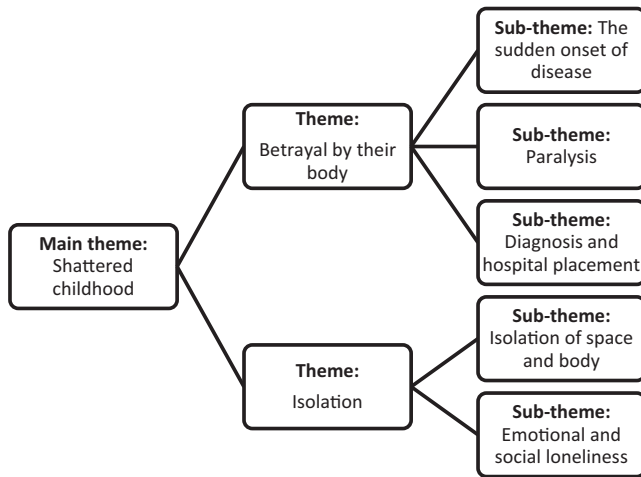


FIGURE 1 The main theme, themes and subthemes resulting from the thematic analysis.

(request for opinion 18/2018 and opinion 31/2018). The opinion was favourable, and the committee did not identify any ethical impediments in the study plan.

The study examines childhood, illness, treatment, nursing and disability history and their impact on the entire family. Based on previous information on the participants, children polio survivors have been powerless and demoralized. As a result, speaking about these experiences may cause feelings of mental vulnerability, psychological stress and discomfort if the memories trigger extremely traumatic experiences. The interviewer should balance their own role and ask questions that allow the willingness of the interviewees to answer them (Halbmayr, 2009). The interviewer observed the condition and stress level of the study participants, offering breaks and options not to answer questions that they did not want to answer. This technique is crucial when conducting sensitive studies because the questions can cause secondary trauma (Halbmayr, 2009).

### 3.7 | Validity, reliability and rigour

Traditional criteria for the reliability of the qualitative study were used to assess the reliability of nursing science (Polit & Beck, 2012). Moreover, the consolidated criteria for reporting qualitative research (COREQ), a 32-item checklist for interviews and focus groups, was used as a reporting and checklist tool (Tong et al., 2007). As this was a verbal nursing history study, the evaluation, argumentation and reconstruction included in the historical study were also used as criteria. The correctness of the study analysis is confirmed by the original experiences of the study participants, which have been translated from Finnish to English. The translations may have taken linguistic richness away from the original expressions. The research results should also be viewed from the point of view that the researchers' reflexive thematic analysis has been influenced by their own role as healthcare professionals and nursing researchers.

## 4 | RESULTS

### 4.1 | Shattered childhood

The main theme from the thematic analysis of this study was 'Shattered childhood'. In their childhood memories, polio victims described the fracture as follows: 'betrayal by their bodies' and 'isolation'. In part, their shattered childhood referred to the loss of a familiar childhood and environment, the absence of control and the disappearance of safe and familiar childhood routines. Family members were replaced by medical staff. For some (N47, two in-home care), the home environment was replaced with a hospital isolation room. Instead of playing with siblings and friends, patients experienced loneliness. Everyday home life was replaced by adult routines in a hospital that did not cater to children, their play or their feelings. During the hospital isolation phase, the children's experiences were mostly shaped by their inner world of imagination and mental games, that is, playing without toys. This, in turn, was influenced by the disease severity and possible paralysis, as well as whether or not the child had access to toys brought from home. Children did not recognize that their childhood had changed.

#### 4.1.1 | Betrayed by one's body

The theme, 'betrayal by their bodies', generated from the experiences of polio survivors in the form of the following subthemes: the sudden onset of illness, paralysis, disease diagnosis and hospital discharge. The collective experiences of the sudden onset of disease were illustrated in narratives (N26/49) where the participants described the illness in the middle of the play, sports or other familiar daily activities. They recounted how they saw themselves as vibrant and lively children before they fell ill. These characteristics suddenly changed into symptoms such as weakness and a runny nose. The children recalled memories of intense pain or fatigue, experiencing pain in different parts of the body, fever, loss of appetite and a rapid deterioration of their general health.

Paralysis was recalled as extremely grave and traumatic, and all study participants described it as concretely occurring during different activities, such as playing or walking. These accounts demonstrated that paralysis had a damaging effect on the lives of active and ambulatory children. The narratives describe horror and fear of what was happening to them:

I remembered that I was very sick, had a flu and I vaguely recall feeling horror that I wouldn't be able to get out of bed at night, that I couldn't get up myself and that my neck hurt. I had a flu and then I was taken to the doctor. I really remember that we went along the road and then walked to the bus and I was dragging my left leg. I was taken straight from there to the hospital where they performed an emergency tracheostomy on me, but I don't recall any of that.

I do remember being lifted onto some cold table where they performed a spinal puncture and it felt as though the world exploded because the pain was so intense and then my memory was gone. (Polio survivor 43)

#### 4.1.2 | Diagnosis and hospitalization

Polio survivors recalled that both doctors' and nurses' diagnostic skills and abilities with respect to polio delayed the start of treatment, and that they were given incorrect instructions that may have affected the disease progression. For example, this happened when doctors diagnosed warning signs as flu symptoms, growing pains or even just evidence of a lazy child. The narratives described that a doctor or nurse did not immediately recognize their symptoms as paralysis.

The symptoms lasted a few days so I was taken to a pediatrician. And the pediatrician prescribed lead wraps. They didn't have the slightest inkling that it could be that [polio], although the symptoms clearly showed that there were signs of paralysis of the right leg. [He said] that we could try electroshock therapy on it and [talked] about electric stimulus on some peroneus nerve. And the paralysis worsened our mother was baking buns and she told father, 'Now I'm going to call the public health nurse because she knows much more about these things.' (Polio survivor 18)

Children were usually brought to the hospital for medical care by car, taxi, bicycle, ambulance, train or helicopter. Patients with polio experienced various emotions during the transfer, such as fear and anxiety; however, some participants felt excited at becoming the centre of attention and being able to ride in an ambulance. Their first memory after hospitalization was the series of tests and drawing of spinal fluid. These experiences were described as involving ignorance, incomprehension and pain.

### 4.2 | Isolation

The isolation theme consisted of the subthemes of confinement in terms of space and body and emotional and social loneliness or separation.

#### 4.2.1 | Isolation of space and body

For patients with polio, the acute phase in the hospital was represented by their bodies being placed in the hands of others. The children's world was confined to their minds and bodies and was physically restricted to a hospital bed, where they were restrained, sometimes for several weeks. This period was marked by extreme

loneliness and silence, thereby creating a shattered world. Doctors and nurses visited only when necessary. According to the study participants, the medical staff were rarely present. Family members were visible only through a window without verbal exchanges or physical contact. Children who contracted polio might experience the most uncomfortable procedures or are often called out for help just to have someone come near them or even touch them. The isolation period was strongly associated with feelings of abandonment.

The acute stage of treatment was also marked by fear. Their anxiety was triggered by the ambient sounds of the hospital, and if there were other patients with polio in the room, they feared seeing them and hearing the sound of the ventilator. Although other patients were present in the room, they never spoke to each other. During the acute phase, the presence of other people or children brought no comfort despite the presence of other people in one room. The bonds at home were broken:

There was no alert system, the system was yelling. The first days I too shouted all night long because of the fear, but they only said through the door to be quiet because nothing was wrong. And to be honest nothing was really wrong with me. It was just the fear. (Polio survivor 19)

#### 4.2.2 | Emotional and social loneliness

The study participants' narratives reflected that the acute phase of polio was associated with a powerful sense of emotional and social isolation or loneliness. Emotional isolation meant that, during this traumatic experience, they did not receive any comfort, tenderness or even physical contact from the nursing staff. They eagerly looked forward to their parents' visits; however, their experiences were emotionally unfulfilling. They were not able to talk with their parents and were not allowed to touch them. Visiting times reinforced the feeling of loneliness, which was only relieved by friendly faces and tasty food.

The children's loneliness was the culmination of many factors. Parents could only wave through a window without communicating, and the nurses did not speak with the children. The only contact or conversations were related to their daily care routines. The presence of other children during the acute stage brought some comfort, but being in the same room with them was also frightening. The children had no daytime activities during the acute phase.

Children sought comfort in imaginary worlds. In a way, they played in their thoughts, which sometimes included ideas of running away from the hospital to return home. They experienced joy if they heard music, nurses singing or caregivers becoming familiar. Smiling nurses were their favourites, and they eagerly looked forward to seeing them.

You know how I amused myself? I always turned on the tap and kept my finger under the running water.

I listened to the sound and if I turned it on more and there was the smell of warm water, I remember it so clearly that it's like I was there. (Polio survivor 18)

Gifts such as treats and other items relieved the children's fear and homesickness. These treats and gifts represented physical contact to home for the children. They also represented a strong emotional and social bond with family and home during exceptional circumstances.

One feature of the isolation phase was that the nursing staff excluded the children from the world of adults; that is, the children were not informed about what was being done to them or the status of their illness. Not even their parents discussed these matters with their children. Being shut out of the adult world also meant that no one spent time with them or comforted them. The patients' care experiences were characterized by feelings of humiliation and mistreatment by the nursing staff. The procedures were seen as embarrassing, and the children were seen as the cause. Aloofness was also a feature of the care regime, and the children were not always explained what was being done. The isolation period and the procedures performed were described as cold and dismissive. The procedures seemed almost violent, the nurses did not understand the children's fear and loneliness and the patients were not allowed to cry during the procedures. The children were berated if they suffered insomnia or urinated in bed because they were paralysed. Paralysis created a sense of helplessness, and the children felt that anything could be done to them without their consent or any explanation.

Because I couldn't go anywhere or urinate or have a bowel movement normally, then there was a lot of shouting and blabbering when no one came. I don't know, but it seemed that they were angry. And then once there was a mess everywhere then that wasn't good either. (Polio survivor 21)

## 5 | DISCUSSION

This study analysed the recollections of 49 patients with polio and highlighted the disruption caused by the disease. Their shattered childhoods were evident in the sense of betrayal by their own bodies and their isolation in space and from their physical selves. Similar experiences were described by 25 women in Harrison and Stuijbergen's (2005) study. In this study, the idea of betrayal by one's body was described by three subthemes: the suddenness of the illness, paralysis and the diagnosis and hospitalization. The suddenness of the illness and the rapid isolation of the children also emerged in the studies of Altenbaugh (2015), Harrison and Stuijbergen (2005) and Highley (2016). In this study, the participants provided detailed descriptions of the time and place of their illness, which partially reflected the traumatic nature of the disease. The results showed how a playful, vibrant child became

lonely and forgotten during the acute phase. The limitations of their physical being and their loneliness caused the children to retreat into an imaginary world. The children stated that they were invisible during their entire treatment. Another new insight was the understanding that, even in traumatic situations, their ability to endure was tied to their imagination and curiosity, even at an early stage.

For the participants, isolation was recalled as isolation in space and from their bodies and as social and emotional alienation. Participants' experiences revealed alienation from their families, isolation in their rooms and confinement to their beds, as well as their own bodies and minds. Being shut off in their own imaginations was important for coping with traumatic experiences. The construction of imaginary and real worlds surrounding one's own body and bed may be a dissociation related to developmental trauma, which is a way for maltreated children to adapt painful and frightening experiences out of consciousness (Hart, 2021). According to this study, children suffered from pain, loss of identities and self-determination and social alienation from familiar environments and their families like also existing research has shown (Altenbaugh, 2006; Harrison & Stuijbergen, 2005; Shell, 2005; Wenneberg & Ahlström, 2000; Wilson, 2005).

The study also revealed that medical staff resorted to bribes, orders and intimidation to get the children to comply with treatment procedures or to stop crying. Highley (2016) also reported similar results. Altenbaugh (2006) showed that if an injury was caused by a health problem, the injured person and their family became dependent on medical and rehabilitation professionals, resulting in the loss of their dignity and rights. The study participants described treatment during the acute stage of polio as cold, indifferent and even humiliating for children.

Based on the research participants' experiences, getting a diagnosis was difficult because, for many years, the mode of transmission of polio was not even widely understood. The symptoms were similar to those of an ordinary flu (Altenbaugh, 2006; Highley, 2016; Khan, 2010; Oshinsky, 2005; Trevelyan et al., 2005), and the doctors and nurses did not know what to do with the symptoms (Highley, 2016). In Finland, the polio epidemic occurred from the 1940s to the 1960s, which cast a shadow during World War II and, in turn, delayed the development of medical skills and the time for rebuilding Finland. Notably, after World War II, the Finnish healthcare system started to recover, and official health plans were implemented for families and children affected by the disease. Home, the nuclear family and motherhood gained a higher standing in society. Early childhood care was developed and improved. Meanwhile, nursing and medical science also began to develop during post-war Finland (Harjula, 2007). However, these advances were not reflected in the experiences of polio sufferers. In those decades, the nurse's schoolbooks or the books on child care theory and children's diseases do not describe the emotional or social care of children (Voipio, 1951; Ylppö, 1935, 1949). The book of children's medical care in 1959 does not mention polio anymore; however, a chapter described the methods of

how to take care of children in the hospital environment and how they ensure children's trust and safety (Ahvenainen et al., 1959). However, there is no evidence of how these books were used in Finnish nursing education.

The past experiences of childhood polio survivors are difficult to understand without awareness that children infected with polio developed, fell ill and recovered in cultural and social contexts during that period. A child's biological and psychological development and learning occur during critical and sensitive periods. Childhood consists of basic needs and their fulfilment, different sensations about the world and human relationships. Touch is very important. In their interpersonal relations, the children organize their social environment based on gestures, tone of voice and emotional settings (Dunderfelt, 2011). One focal point of this study was James et al. (1998) childhood theories. During the acute disease phase, the hospital emphasized raising children to be obedient based on the institution's operating culture and their attachment to everyday hospital life. They shared a collective experience of sickness and treatment. Their status as a 'minority group' is reflected by the inability of doctors and nurses to understand the needs and sadness of the children. The study participants' experiences of being neglected, lonely, misheard and abused might cause trauma (Paivio & Pascual-Leone, 2023). In Finnish society, sanctions are a part of children's upbringing and education. Negative sanctions include scolding, threats, intimidation and physical discipline. However, not all families practice these forms of punishment (Aukia, 2010). The study results revealed that nursing staff also used the system of reward and punishment.

## 5.1 | Study strengths and limitations

This study used reliability criteria for the qualitative study (Polit & Beck, 2012) and COREQ (Tong et al., 2007). The interviews represent valuable data; however, note that people relate to what they believe to be worthy of sharing. This study interviewed 45 polio survivors, and four participants provided written accounts of their experiences. The results reflect their experiences, and they cannot be applied to all participants who were either infected or disabled by polio. This study aimed not to create a generalized oral history but to highlight children's experiences of the disease and treatment. By researching past experiences and emotions, we can complement the general history of nursing, treatment and medicine.

The study participants related past events that took place decades ago. As a result, recalling accurate experiences and events may be difficult. Although 3-year-old children had memories, older children had more accurate memories. When we report childhood events, differentiating what comes from the narrator's own memory and what might have been learned from others over the years is difficult. Recording memories might also be affected by the fact that painful or traumatic childhood events may have been suppressed as the body's defence mechanism. All these factors should be considered when interpreting the study results.

## 6 | CONCLUSIONS

Polio survivors' collective experiences during the acute stage of their illness were traumatic and placed the children in a subordinate position in Finnish nursing in the 1950s and 1960s. No previous study has reported the experiences of children polio survivors in Finland. This study is socially, culturally and historically significant due to the lack of information about the subject. In the future, experiences after the acute phase should be investigated.

The polio survivors' experiences of the illness and treatment have affected their quality of life and role in society. Information about these experiences, particularly from a nursing history perspective, is important because persons with a lifelong disability who received experimental treatment in the 1950s and 1950s and who experienced a lot of fears, loneliness, and neglect have the right to be heard. As a result, the study has significant value for Finland and Nordic countries because it provides nursing perspectives on this topic. Throughout history, one of the pillars of society has been medicine and nursing, as well as health counselling, and we lack historical experience information about these areas.

Although polio is no longer a global threat to human health, international mobility still contributes to the spread of infectious diseases. At the same time, unvaccinated children and vaccination hesitancy have become broader phenomena. This study provides insights into the experiences of illness, treatment and rehabilitation that may also be used today for the treatment of others who are injured and seriously ill. Patients who suffer from polio still require healthcare services. Hence, knowledge of their past nursing experiences is crucial. With physical symptoms, they also might have a traumatic past. Healthcare professionals should also know their negative nursing history to make a difference today and in the future. As Halbmayr (2009) said, these verbal experiences can build bridges between the past and the present and allow us to repair this moment and the future.

The study of polio and the position of children from the perspectives of individuals, people and society should be studied more in Finland. In this study, it was found that the experiences of the acute phase caused trauma. In the future, it is important to do research whether traumatic experiences are occurring also children's the recovery phase, the rehabilitation phase or how communities and society have treated polio patients and polio disabled people. This information is missing from Finnish research.

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### CONFLICT OF INTEREST STATEMENT

No potential conflict of interest was reported by the authors.

## PEER REVIEW

The peer review history for this article is available at <https://www.webofscience.com/api/gateway/wos/peer-review/10.1111/jan.15903>.

## DATA AVAILABILITY STATEMENT

Data available on request from the authors: The data that support the findings of this study are available from the corresponding author upon reasonable request.

## ETHICS STATEMENT

The study followed the guidelines for good scientific practice by the Finnish National Board on Research Integrity and its ethical guidelines for research with human participants and ethical review in the human sciences in Finland (Finnish National Board on Research Integrity TENK, 2012, 2019). The members of the research team were committed to honest, meticulous and accurate conduct of the research steps and reporting of the results. Appropriate research permits were obtained for the research and an ethical preliminary assessment was requested from the Tampere Area Ethics Committee for Humanities in 2018. (Request for opinion 18/2018 and opinion 31/2018). The opinion was favourable and the committee did not see any ethical barriers in the research plan.

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