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# Maternal Experiences of Moderate to Late Preterm Children Aged 3–6: A Qualitative Study on Child Development, School Life, Parenting Roles, and Implications for Pediatric Care

**Sıla Uzkul**

suzkul@beu.edu.tr

Bitlis Eren University

**Şengül Pala**

Kırıkkale University

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# Abstract

This study set out to explore, in depth, how mothers of moderate-to-late preterm children aged 3–6 experience their children's development, school life, their own sense of the parenting role, and the rhythms of everyday life. Eight mothers who had given birth moderate-to-late preterm and whose children fell within the 3–6 age range made up the study sample. Adopting a qualitative design, the research gathered data through a demographic information form prepared by the researchers, a semi-structured interview form, and a digital diary kept over a ten-week period. Interview data were examined using thematic analysis, while diary entries were analyzed through content analysis. The findings showed that mothers tended to view their moderate-to-late-preterm children as more vulnerable to health problems compared with their peers. What stands out as one of the most noteworthy results, however, is that this perceived vulnerability pushed mothers into an early-intervention role, which in turn acted as a protective factor against school-absenteeism. Most mothers rated their children's learning abilities and academic performance as age-appropriate, though they noted that attention skills varied depending on the child's interest and motivation. Another key finding was that the difficulties moderate-to-late-preterm children encountered most frequently in school life centered on school adjustment, bullying, peer interactions, and social skills. In some cases, challenges with fine and gross motor skills were also found to interfere with participation in school activities. Overall, the mothers in this study were seen to take on both supportive and guiding roles in order to meet their children's developmental needs.


# Introduction

Early childhood is a critical developmental period during which the brain undergoes its most rapid growth and the groundwork is laid for cognitive, social, emotional, and academic outcomes later in life (Black et al., 2017; Johnstone et al., 2022). Throughout this stage, children continue to develop through everyday experiences such as play, caregiving, and education (Black et al., 2017; Öncü et al., 2023; Yoshikawa et al., 2013), and they shape their own learning and developmental trajectories through the interactions they have with their surroundings (Bronfenbrenner, 1979). At the same time, developmental processes are not driven solely by environmental experiences; they are also influenced by a range of biological characteristics and risk factors. Among these, premature birth stands out as a particularly significant risk factor with the potential to affect developmental outcomes during early childhood (Atalell et al., 2025).

According to the World Health Organization (2023), premature birth is defined as any birth that takes place before the completion of the 37th week of gestation. Preterm births are classified by gestational age as extremely preterm (< 28 weeks), very preterm (28–31 weeks), and moderate to late preterm (32–36 weeks). In recent years, advances in neonatal care and medical technology have contributed to a substantial rise in the survival rates of preterm infants (Raghuram et al., 2025). Nevertheless, the long-term developmental consequences of premature birth remain an important area of ongoing research. Studies have shown that children born prematurely may face a variety of difficulties across cognitive, motor, language, behavioral, and social-emotional domains (Allotey et al., 2018). In addition, premature

birth can carry notable risks for a range of health complications, including respiratory and digestive issues, vision and hearing problems, transient dystonia, and feeding difficulties (Kelly, 2018; Gette et al. 2025).

Because the preschool period is a time when children are expected to sustain attention, communicate effectively, regulate their behavior, and build social relationships with peers, the impact of premature birth on development tends to become more visible during this stage. Put differently, as developmental expectations increase, the challenges that preterm children experience in areas such as attention, behavioral regulation, academic skills, and social adjustment become more apparent, and their need for support emerges more clearly.

Although there is a substantial body of research demonstrating that premature birth can have lasting effects on children's cognitive, neurodevelopmental, and academic growth—and that it is associated with difficulties in attention, executive functions, behavioral regulation, motor skills, and school achievement (Allotey et al., 2018)—studies that focus specifically on these children's school-related experiences and on how parents make sense of those experiences (Bradshaw et al., 2025; Mitchell et al., 2024) remain relatively limited. Yet understanding the challenges that preterm children encounter in early childhood education settings and hearing mothers' perspectives on this process is essential for designing early intervention and support services that are tailored to children's actual needs. The present study is expected to contribute to the literature on the preschool-level implications of prematurity by offering an in-depth look at the school experiences of children born prematurely and at their mothers' perceptions and lived experiences throughout this process. Furthermore, the findings are anticipated to deepen our understanding of what preterm children need in the school environment, to strengthen early support services, and to inform the planning of interventions that promote school adjustment and developmental well-being. Because moderate to late preterm children—those born at or after the 32nd week of gestation—have high survival rates and largely attend preschool programs, this study chose to work with mothers of children born at 32 weeks' gestation or later in order to examine how prematurity is reflected in school life.

Another important contribution of this study lies in its data collection approach: alongside interviews with mothers, diaries were also used. These diaries gave mothers the opportunity to describe, in a more natural and detailed way, the situations their children encountered in school life and the parenting experiences that accompanied them. Through this approach, gaining a more thorough understanding of the needs of children born early and their families is considered important for identifying any risks at an early stage and for planning appropriate interventions and support services.

The aim of this study is to understand and explain the school-related experiences of mothers who have a moderate to late preterm child aged 3 to 6, along with the challenges they face throughout this process. In line with this aim, the following sub-questions were addressed:

1. What is the developmental profile of children born prematurely between the ages of 3 and 6?
2. What difficulties do prematurely born children experience in preschool education?

3. What are the views of mothers of premature children regarding their parenting experiences?

## Methods

In this study, the phenomenological design, which aims to express the experiences, perceptions, and meanings that people have about a phenomenon, was used from among the qualitative research designs. Phenomenology is frequently used in interview-based studies, and in the analysis of data, experiences are described and explained, and themes are identified. (Merriam & Tisdell, 2016).

# Study Sample

In this study, the aim was to examine the experience of raising a preterm child in depth from the perspective of mothers. Being the mother of a preschool-aged child born preterm was therefore established at the outset as one of the inclusion criteria for the study. This decision is also related to the sociocultural context in which the study was conducted: in Türkiye, a substantial portion of the day-to-day responsibilities associated with childcare during the preschool period is reported to be undertaken by mothers (Akar et al., 2025).

To identify a sample that shared this common experience in depth, criterion sampling, a form of purposive sampling, was combined with a homogeneous sampling approach. Homogeneous sampling allows for the selection of participants who share common characteristics and similar experiences in relation to the phenomenon under investigation, enabling that experience to be examined in detail (Patton, 2015; Creswell & Poth, 2018). Accordingly, the criteria set for participation were as follows: the mother had to have given birth moderate to late preterm (between 32 and 36 weeks), the child involved in the study had to be between 3 and 6 years of age, and the child had to be currently receiving preschool education.

To reach potential participants meeting these criteria, an invitation link was prepared that introduced the study and allowed interested individuals to apply. This link was shared on social media accounts related to premature birth and preterm infants. After roughly a month of outreach and promotion, the number of people who clicked the link and gave their consent to participate reached 15. Given that the recommended sample size for phenomenological studies falls between 5 and 15 participants (Creswell, 2013), the invitation link was taken down once this number was reached.

The researchers encountered several difficulties while trying to get in touch with the 15 applicants. Four of them did not respond to phone calls or informational messages, and two voluntarily withdrew from the process, citing busy schedules. In addition, one person asked for the interview to be conducted in written rather than verbal form; because this was incompatible with the study's data collection method, that individual was excluded. Following all of these screening steps, the study was completed with 8 participants. Demographic information about the participants is presented in Table 1.

Table 1
Demographic information of participants

| Participant no | Level of education | Gender of the child | Birth week | NICU stay | Low birth weight (gr) | Chronic health condition of the child |
|---|---|---|---|---|---|---|
| P1 | Graduate | Girl | 35 | Yes | 2000 | Yes |
| P2 | Graduate | Girl | 34 + 2 | Yes | 2250 | No |
| P3 | Graduate | Girl | 30 + 6 | Yes | 1480 | Yes |
| P4 | Graduate | Boy | 33 + 4 | Yes | 2730 | No |
| P5 | High school | Boy | 36 | No | 2800 | No |
| P6 | Undergraduate | Girl | 36 + 1 | No | 2950 | Yes |
| P7 | Graduate | Boy | 32 + 6 | Yes | 2000 | No |
| P8 | Undergraduate | Boy | 35 | Yes | 3100 | No |

## Data Collection Tools and Data Collection Process

Mothers who filled out the invitation link to take part in the study were first contacted by phone. During these calls, they were informed about the scope and procedures of the study as well as their rights as participants, and a suitable time slot was arranged for the individual interviews. On the day of the appointment, before the interview began, each mother was sent an Informed Voluntary Consent Form along with a Mother–Child Information Form. Following this preparatory process, the study's data were collected through two main tools: a Semi-Structured Interview Form and a Digital Diary, administered over a 10-week period. Detailed information about each of these two data collection tools and the procedures involved is provided below.

In evaluating the adequacy of the resulting data set, the information power approach was adopted, emphasizing that the number of participants alone is not a determining factor; instead, the purpose of the research, the specificity of the sample, the quality of the data produced, and the analysis strategy should be considered together (Malterud et al., 2016). In this context, the fact that the research focused on the experiences of mothers with premature preschool children, that the study group consisted of participants with common characteristics directly related to the research question, and that the semi-structured interviews were supported by digital journals kept for 10 weeks were considered elements that strengthened both the scope and depth of the data set.

Because all interviews were conducted in the participants' native language, the data collection and analysis processes were also shaped accordingly. The study was conducted in Türkiye, and all interviews were conducted in Turkish. The interviews were transcribed verbatim in Turkish, and data analysis was carried out using the original Turkish transcripts. Direct participant quotations presented in the article to

support the findings were translated into English only, in accordance with the publication language. During the translation process, care was taken to preserve the semantic, conceptual, and contextual equivalence of the participants' statements.

## Mother–Child Information Form

This form collected background information about the parents—including age, gender, level of education, number of children, and employment status—as well as details about their child, such as age, gender, developmental status, the presence or absence of any chronic health condition, whether the child had received a special needs diagnosis, and whether the family was receiving any caregiver support.

## Semi-Structured Interview Form

This form included questions addressing children's development, their school-related experiences, and mothers' perceptions and lived experiences of the parenting role throughout this process. It was developed by the researchers following a thorough review of the literature and was built upon the interview form created by Väliaho et al. (2021). During the preparation of this 149-item form, input was gathered from five academics specializing in child development (2), special education (1), and early childhood education (2). The form was revised accordingly and then finalized (see Appendix A).

The semi-structured interviews were audio-recorded with each participant's consent. Every interview was held one-on-one in an online setting and lasted between approximately 45 and 90 minutes. Sessions were arranged at a mutually convenient day and time chosen by the researcher and the mother, and completing all of the interviews took about three months.

# Digital Diary

A digital diary is a data collection tool in which participants record their own experiences, thoughts, or observations in writing at set intervals (daily, weekly, etc.). This process may take the form of structured questions provided by the researcher or of free-form narration. In qualitative research, diaries are used especially when the goal is to access a participant's inner world, to trace change over time, and to capture everyday experiences (McCombie et al., 2024). In the present study, a weekly digital diary was implemented so that mothers' accounts of their moderate to late preterm children's school lives and the problems that arose along the way could be examined in a natural context and in greater detail. The diary prompts were developed by the researchers drawing on the relevant literature (Bolger et. al., 2003; Denham, 1992; Taştekin et al., 2025) and went through the same expert review process as the semi-structured interview form (see Appendix A). Participants were asked to send the researchers a voice recording of roughly 5 to 10 minutes once a week over a 10-week school term. Over this period, a total of 25 voice recordings were submitted: P1 sent 6, P4 sent 6, P5 sent 5, P6 sent 6, and P7 sent 2. The

remaining participants—P2, P3, and P8—chose not to take part in the digital diary component due to their busy schedules.

# Data Analysis

The data obtained within the scope of this study were drawn from two distinct sources: the interviews conducted with participants and the written records collected through digital diaries. Because these two data sources complemented each other, their analysis processes were handled separately.

## Analysis of Interview Data

In the analysis of the interview data, this study adopted the reflexive thematic analysis approach originally introduced by Braun and Clarke (2006) and subsequently developed in considerable depth in their later work (Braun & Clarke, 2019, 2021). This approach treats the process of coding and theme development not as the neutral extraction of pre-existing meanings, but as an interpretive process shaped by the researcher's theoretical position, disciplinary knowledge, and engagement with the data (Braun & Clarke, 2021). In the present study, the analysis was guided by the study's predetermined research questions and conceptual framework, and therefore adopted a theoretical (deductive) orientation; nonetheless, the codes and themes were generated through the researcher's active interpretive engagement with the data, rather than being assumed to "emerge" spontaneously from it (Braun & Clarke, 2022). The researcher's positionality and relationship to the data were considered throughout the analytic process, and coding decisions were informed by this ongoing reflexive awareness. The analytic process was organized into four main stages, grounded in Braun and Clarke's (2021) six-phase framework:

In the first stage, the interviews were transcribed from audio recordings using the Transkriptor application. During transcription, the researcher listened to each recording multiple times to verify the accuracy of the written text; all utterances, including verbal stumbles and hesitations, were meticulously documented. The transcripts were then read repeatedly so that the researcher could develop a thorough familiarity with the data. This corresponds to the familiarization phase in Braun and Clarke's (2021) framework.

In the second stage, the data were coded systematically with the study's research questions in mind. Throughout the coding process, semantically related statements were grouped together, and a detailed note was made of the particular phenomenon or experience each coding unit corresponded to.

In the third stage, the resulting codes were examined for inter-relationships and organized into broader categories. These categories were continually re-evaluated through a comparative reading against the study's conceptual framework; the internal consistency of each category and the degree to which it was distinct from the others were both scrutinized. This stage corresponds to the reviewing and defining of themes in Braun and Clarke's (2021) model.

In the final stage, the categories were elevated into higher-order themes, and the hierarchical relationships among them were clarified. The themes are presented in the findings section and are supported throughout by direct quotations from participants.

Reflexive thematic analysis does not rely on traditional criteria of validity and reliability; rather, the transparency and credibility of the analytic process are treated as central (Braun & Clarke, 2021, 2022). Accordingly, post-positivist measures such as calculating intercoder agreement or seeking consensus among multiple coders were deliberately avoided; instead, the analytic process was understood, in its entirety, as an interpretive process shaped by the researcher's theoretical position, disciplinary knowledge, and engagement with the data (Braun & Clarke, 2019). Two measures were taken to support the credibility of the study. First, an expert review was conducted (Lincoln & Guba, 1985): the research process, along with the codes, categories, and themes that had been generated, was presented to a researcher specializing in qualitative methodology, allowing the analytic reasoning followed in the study to be evaluated from an independent perspective. Second, in order to make the connection between the themes and the underlying data visible, each theme presented in the findings section was enriched with direct quotations from participants, enabling readers to assess the researcher's interpretive claims against the original data. Throughout the analysis, particular attention was paid not to the sheer number of themes generated, but to the extent to which each theme was substantively and coherently grounded in the data set.

# Analysis of Digital Diary Data

The data obtained from the digital diaries were analyzed using qualitative content analysis, an analytic technique frequently employed in qualitative research. This technique enables the researcher to reduce textual data to meaningful concepts, categories, and themes through a systematic and replicable process (Hsieh & Shannon, 2005; Elo & Kyngäs, 2008). As the coding categories were derived directly from the mothers' own written accounts rather than from a predetermined theoretical framework, the analysis followed the conventional (inductive) form of content analysis described by Hsieh and Shannon (2005).

In this process, the weekly entries mothers wrote in their digital diaries were first transcribed directly by the researcher to produce the raw data set. The resulting transcripts were then reviewed line by line; the smallest units of text carrying meaning (meaning units) were identified and condensed, and each was assigned an initial code (Graneheim & Lundman, 2004). During the coding stage, the data were coded independently by two researchers, and their coding decisions were subsequently compared. Reliability was ensured following the approach proposed by Graneheim and Lundman (2004), whereby discrepancies between coders were resolved not through reduction to a single statistical coefficient, but through discussion sustained until consensus was reached. To support the transparency of this process, the initial level of intercoder agreement was additionally calculated and found to be 87% (see Miles, Huberman, & Saldaña, 2014). Once a sufficient number of codes had been generated, codes with similar meanings were grouped together to form categories, and the resulting categories were repeatedly

reviewed for the degree of overlap and distinctiveness between them. Recurring patterns across categories were identified, and higher-order themes were derived from them. Ultimately, following the cyclical and iterative process characteristic of qualitative analysis (Creswell, 2009), a set of interrelated themes and sub-themes was established. Throughout this process, particular attention was paid to the credibility and consistency of the analysis, in accordance with the trustworthiness criteria commonly applied in qualitative content analysis (Graneheim & Lundman, 2004).

## Results

The data obtained from participating mothers through semi-structured interviews and digital diary records were analyzed and presented under two sub-headings. Although these sections do not directly address the research questions, an overall interpretation of the findings responds to all sub-questions.

# Thematic Analysis Results of Semi-Structured Interviews

The analysis of the data revealed six interrelated main themes along with their associated sub-themes. A thematic map showing the hierarchical organization of these themes, along with their associated sub-themes, is provided in Fig. 1.

# Theme 1: Physical Health and Sustained Risk Perception

Half of the participants reported that their children fell ill far more often than their peers and were noticeably more vulnerable to illness (P1, P2, P3, P6). The most commonly encountered conditions in these children were upper respiratory tract infections, bronchitis, and pneumonia. While most parents were well aware of their children's fragile immune systems, they emphasized that experience gained over time had made the process considerably more manageable — allowing them to intervene both more quickly and more appropriately.

*"When she gets pneumonia, she doesn't struggle the way other children do. Probably because we use the right medications. We have two nebulizers at home — the moment she starts coughing, I give her the medication and set up the machine right away."* (P1)

Sensory difficulties were another theme raised by approximately half of the participants. Some parents mentioned that their children wore glasses (P1, P3, P6), while one participant shared that their child had undergone surgery due to hearing loss (P7). Illness-related school absences emerged as a particularly prominent concern for children who fell sick frequently (P2). That said, some parents felt that the impact of illness on their child's school life was relatively limited (P1, P3, P5).

# Theme 2: Parenting Role in Daily Life

Parents of preterm children may take on a supportive role at times and a regulatory or interventionist role at others. Children showed varying levels of independence in self-care skills, with some able to manage daily routines like dressing and toileting on their own, while many still needed parental guidance

or occasional physical help, especially when parents were pressed for time. One mother, however, was putting a diaper on her child at night while the child was asleep, despite the child's objections. This child had experienced a regression in toilet training following the birth of a sibling and had begun wetting the bed at night, prompting the mother to manage the situation with diapers rather than taking a more supportive approach.

*"I take the diaper off before he wakes up — if he sees it, he screams. He says, I'm not a baby."* (P5)

Mothers noted that sleep support and emotion regulation were the areas where their children needed the most help on a day-to-day basis. While some parents intervened out of a belief that their children needed support with anger management and emotion regulation (P2), others modeled expressive language (P3) or provided sensory comfort (P4).

*"When she cries, she tells me: hug me, calm me down."* (P4)

Many mothers had established a consistent bedtime routine and, in line with their child's preferences, provided physical or sensory support to help them fall asleep (P2, P3, P4, P5, P7, P8).

Regarding the school process, parents were found to maintain close communication with teachers and to be actively involved in the process, though without directly interfering with the teacher's role (P3, P7, P8). Parents sought out solutions outside of school to meet their children's needs and kept a close watch on their children's educational progress.

# Theme 3: Functional Competence

Some mothers (P3, P4, P6) noted that their children had difficulty with balance in activities such as riding a bike or a scooter. Others mentioned that their children, despite being physically capable, showed signs of fear around unsupported outdoor play or movements such as somersaulting up until the age of three to five (P1, P2, P4, P5).

*"She rode a bike this summer, but she didn't really enjoy it —she was anxious. She has a bit of a balance issue."* (P4)

*"Like when she was going down the slide, she was a bit of a cautious child."* (P2)

In terms of motor skills, children were generally found to be functioning at the level of their peers; however, some struggled with fine motor tasks such as cutting, coloring, and using a pencil, showing developmental delays in this area (P1, P3, P6, P7). Due to these delays, some parents chose not to give their children knives out of safety concerns (P3, P6, P7).

A notable finding was the inconsistency in attention skills, which appeared to fluctuate depending on the child's level of interest and motivation. Children were reported to sustain focus for extended periods during activities they found engaging, but to become easily distracted when faced with tasks they found uninteresting (P6, P7). While children were generally described as doing well at school and receiving

positive feedback from their teachers (P1, P2, P4, P5, P6, P7, P8), this success was not always consistent. Factors such as lack of interest, distractibility, and impulsivity were noted as having a negative impact on academic performance at times (P5, P7).

Participants' accounts indicated that children were able to express their emotions, but sometimes struggled to manage and regulate them. Reactions such as crying, shouting, or withdrawing were observed — particularly in situations involving anger, frustration, or unmet desires (P2, P3, P6, P7, P8). This, in turn, appeared to indirectly affect children's ability to sustain attention and engage in the learning process.

*"When he has an argument with his brothers and doesn't get what he wants, he goes off and has a full-on crying meltdown."* (P8)

# Theme 4: Social-Relational Dynamics in Leisure Time Experiences

Mothers most commonly identified socio-dramatic play as their children's favorite form of play (P1, P2, P4, P5, P7), while constructive play (P2, P5, P6, P8), sensory play (P4), and gross motor play (P6, P7) also featured among preferred activities.

Looking at play behaviors, some children initially preferred to observe rather than participate, watching the play unfold before joining in (P3, P8). Others tended to play alone and kept their distance from groups of children — some had no close friends, others had just one, and some played exclusively with children of the same gender (P5, P6, P8). On the other end of the spectrum, some children were highly sociable, showing clear leadership qualities and initiative (P1, P2, P4).

*"M. is usually the leader in the group. But it's a particular kind of leadership — she never pressures her friends. She starts a game on her own, plays by herself for a bit, and then says, 'If you want, you can join my game. There are these roles — would you like one?'"* (P1)

*"She's a strong communicator. She sets up games, gets his friends involved. Actually, she tends to want to be in charge, let me put it that way. She wants things done her way. She wants to lead."* (P4)

Despite difficulties in peer interaction, nearly all of the children maintained warm and healthy relationships with their family members. The fact that children who were more withdrawn at school (P7) appeared more at ease at home points to the environment as a significant variable. One child who rarely played with peers and had very limited playtime overall (P3) was nonetheless constantly trying to bring family members into his games at home. Mothers generally conveyed signals of warm, secure communication within the family, though some noted sibling rivalry (P5, P8) and strained sibling relationships in their households. With one exception (P8), all mothers described their children as empathetic and emotionally sensitive. The mother raising her child as a single parent (P1) mentioned that a healthy father-child relationship had not been possible due to the father's problematic behavior —

including his reluctance to spend time with the child and his alcohol use — and that these difficulties were in no way related to the child's developmental characteristics or social skills.

# Theme 5: Problems in Educational Life and Parents' Solution Strategies

When participant accounts are examined, school adjustment and the transition process emerge as the most prominent area of difficulty. Particularly during the early weeks of school, children were reported to exhibit intense crying, reluctance to separate from their mothers, and a growing resistance toward school. In some cases these reactions persisted for an extended period (P4, P5), while in others they gradually subsided following an initial adjustment phase (P2, P8). P1 and P4 highlighted that their children experienced significant separation anxiety at the start of school.

*"He said, 'You're not going anywhere, you're staying with me, I want you here.' He cried a lot — really lost it. But this year the crying has stopped."* (P5)

*"The first few days I waited at school. Then he went upstairs, played, came back, saw me, went back up again. After that we told him I'd go home, get things done, and come pick him up — or that his dad would. So we didn't really have any trouble after that."* (P8)

Social skills represented another significant area of difficulty. Struggles in peer relationships, social withdrawal, difficulty with sharing, and an inability to engage with peers were raised by a number of participants (P3, P6, P7). Difficulties around sharing, in particular, led some families to seek professional support (P6).

Children were described in some instances as perceiving school as a form of punishment (P5), giving up easily (P6), or displaying heightened emotional sensitivity (P7). Some children also showed reluctance to participate in activities, with a particular aversion to desk-based tasks (P7, P8). Behaviors linked to separation anxiety — such as wanting to sleep with a parent at night — were also observed (P7).

The difficulties children experienced were also connected to developmental factors. Motor challenges — both fine and gross — were noted as affecting children's participation in school activities (P1, P4, P6). Mothers also raised the possibility that early developmental factors such as preterm birth may have had a lasting influence on their children's sensitivities and adjustment processes (P1, P3, P7).

*"I think being born early has an effect. This child spent three months alone in an incubator. That bond was missing. That's why she always wants to feel safe."* (P3)

School- and teacher-related factors were also found to directly shape children's educational experiences. The quality of teachers' communication with children, their level of attentiveness, and their disciplinary approaches all played a determining role. Supportive teacher attitudes were seen to facilitate school adjustment (P5), whereas punishment-based approaches were reported to have had adverse effects in

some cases (P6). Several participants also noted a lack of adequate guidance and psychological support services within the school setting (P1, P7).

Mothers further directed their children toward a range of activities aimed at supporting their social and developmental skills, including team sports, physical activities, and courses in piano, English, and coding (P1). At home, providing emotional support and maintaining a responsive, attuned approach to the child's needs also proved meaningful — particularly in reducing separation anxiety and easing adjustment difficulties (P2, P7).

# Theme 6: Recommendations and Institutional Expectations from the Mother's Perspective

Participants shared a number of suggestions for families going through a similar experience. Most of these grew directly out of what the mothers themselves had lived through. The point raised most often was that the process should be met with as much calm as possible; mothers said that trying to keep everything under control was neither realistic nor sustainable (P1, P5, P6). Accepting the child for who they are, approaching potential developmental differences without prejudice — these had become ways of coping in their own right. One participant put it quite simply: *"I'd suggest they be calmer… some things are not about you"* (P1). A few mothers whose babies had been born closer to term also cautioned other parents against taking on worry they did not need to carry (P5, P6).

Another thing that came through clearly in the recommendations was the importance of closeness between mother and baby. Mothers talked about how much it mattered, especially in the first weeks, to hold the baby, to maintain skin contact, just to be physically near. One participant said that this kind of contact had been as healing for her as it was for her child (P3). Beyond infancy, they pointed to simple, everyday activities — reading together, playing, doing things side by side — as meaningful ways to support development over time (P1, P8).

The idea of taking an active role in the child's growth also came up again and again. Mothers recommended paying attention to daily routines, introducing stimulating activities from early on, and keeping a close watch on developmental milestones (P1, P2). At the same time, they reminded other parents to go easy on themselves. One mother described it as growing alongside her child, and learning, in the process, to give herself a bit of room to breathe (P6).

When the conversation shifted to institutions, mothers were quite frank about what they felt had been lacking. They wanted more emotional support, more empathy, and clearer information from healthcare providers (P1, P2, P6, P8). One participant summed it up by saying, *"they need to act with an understanding of what the mother is going through"* (P6). Structural shortcomings in the postpartum period were raised just as forcefully — the shortage of psychological support services, the limited financial assistance available to families, and the brevity of both maternity and paternity leave (P2, P4):

*"The mother's maternity leave and the father's leave could both be extended."* (P2)

*"No mother should have to leave her three- or four-month-old baby and go back to work."* (P4)

Education and public awareness were brought up as well. Some participants stressed that teachers need to be trained well enough to recognise the developmental characteristics of children born preterm, and that individual differences among children should be better understood at a societal level (P6, P7). P3 spoke about the importance of building broader awareness around preterm birth so that families do not feel alone while going through it. P7 made the point more sharply:

*"Early childhood education students absolutely must receive comprehensive instruction on preterm birth — what kinds of situations they might encounter, where these children should be referred, what to expect — in great detail. Unfortunately, education faculties fall short when it comes to teaching developmental content."* (P7).

# Content Analysis of Digital Diary Records

The analysis of the data revealed seven interrelated main themes along with their associated sub-themes. Detailed information regarding the analysis is presented in the content analysis table (see Table 2).

Table 2
Content Analysis of Digital Diary Records

| Theme | Sub-theme | Description | Example Expressions |
|---|---|---|---|
| 1. Social Relationships and Peer Interaction | Peer Bullying | Situations where children are physically or verbally harmed by peers | "This week he was physically bullied at school." (P6)<br><br>"A friend gave him a nickname and he was bothered by it." (P7) "Even though he told his friend to stop, the friend hit him. This went on for several days." (P4) |
| 2. Emotional Responses and Regulation | Empathy | Understanding another person's feelings and responding accordingly | "The child disliked the food his friend brought but put it in his bag and took it home so the friend wouldn't be upset." (P1) |
| | Excessive Emotionality / Sensitivity | Experiencing events with intense emotional reactions | "I think he looks at certain events through a very emotional lens." (P7) |
| | Response to Failure | Emotional reactions to academic or social failure | "She was upset about not making the top six. She blamed me (her mother) for her failure." (P1) |
| | Grief over Loss and Separation | Sadness caused by separation from a loved one | "This week my child's teacher left the school, and this made her very sad. She drew a picture for the teacher." (P5) |
| 3. School Refusal and Absenteeism Tendencies | Physically-Motivated School Refusal | Reluctance to attend school due to illness | "She didn't want to go to school this week because she had the flu." (P5) |
| | Emotionally-Motivated School Refusal | Reluctance to attend school due to psychological reasons | "He didn't want to go to school because of the teacher change." (P5)<br><br>"When he woke up in the morning, he said he didn't want to go to school because of the nickname." (P7) |
| 4. Academic and Cognitive Development | Attention / Concentration Difficulties | Inability to focus during class and distractibility | "She reportedly had trouble focusing and kept interrupting the teacher with irrelevant questions." (P6) |

| Theme | Sub-theme | Description | Example Expressions |
|---|---|---|---|
| | Academic Boredom | Unwillingness arising from completing tasks too quickly or finding them difficult | "He mentioned that school was boring because he finished the activities too fast." (P5)<br><br>"She says she doesn't want to write and is very tired from the homework." (P6) |
| 5. Parental Attitudes and Intervention Styles | Protective / Supportive Parenting | A parental attitude that empowers and supports the child | "I encouraged him to talk to his friend and say that the behavior upset him." (P7)<br><br>"I read a book on the subject and we talked about it." (P7)<br><br>"I told her that other classmates also get tired at school." (P6) |
| | Non-Interventionist / Hands-Off Parenting | A parental attitude that expects the child to solve the problem on their own | "I want my child to solve this problem on her own, which is why I didn't reach out to the teacher at first." (P6) |
| 6. Teacher and School Intervention | Close Teacher Attention and Problem-Based Adaptation | The teacher actively engaging with the child's issue | "During this process, the teacher and the guidance counselor took a very close interest in the child." (P4)<br><br>"The teacher planned a more activity-based week for this problem." (P6) |
| | Information Flow / Family–School Communication | Communication based on information sharing between teacher and family | "Although the teacher didn't offer direct support, she did provide information." (P7) |
| 7. Physical Health and School Environment | Physical Accident / Injury | A physical accident occurring in the school setting | "He slipped on a wet floor and got injured." (P4) |
| | Illness Process | Illnesses experienced by the child during the school term | "This week there was vomiting and diarrhea." (P4)<br><br>"She had the flu this week." (P5) |
| | Eating Problems | Reluctance to eat and not sharing the reason | "Throughout the week the child said he didn't want to eat. He didn't share the reason with his teacher or his mother." (P5) |

The ten-week digital diary process revealed that the school experiences of children born moderate to late preterm clustered around several interconnected themes. Within the theme of social relationships and peer interaction, findings pointed to recurring situations involving physical aggression, verbal provocation, and interpersonal conflict among peers -all of which are notable concerns for this age group. Experiences of this kind appeared to feed into patterns of school avoidance, emotional distress, and crying, with a number of children expressing reluctance to attend school shortly after difficult peer encounters.

Turning to emotional responses and regulation, the children generally showed genuine capacity for empathy, yet struggled considerably when faced with stressors such as failure, separation, or unkind remarks from peers. Even situations that might ordinarily be considered unremarkable — a nickname, a careless comment during play -were at times experienced with a level of distress that caught parents off guard and left them visibly worried.

Regarding parental attitudes, families differed quite noticeably in how they responded to their children's difficulties. Those who took an active, supportive role tended to help their children work through challenges more smoothly, while parents who preferred to step back and let the child handle things independently often found that the difficulties lingered longer than expected. School communication suffered accordingly in the latter cases.

When it came to teacher and school involvement, most educators responded with flexibility and attentiveness. That said, there were instances where suggestions for psychological support were turned down, pointing to a gap in awareness around the specific needs that can accompany moderate to late preterm birth. Under the theme of physical health and school environment, recurring illness and accidents emerged as concrete factors disrupting attendance and academic continuity. Negative experiences, though relatively brief in duration, appeared frequently enough to be worth noting. Finally, within academic and cognitive development, some children completed tasks noticeably faster than their peers, raising early questions around giftedness -a finding that carries particular significance given the moderate to late preterm context, where such potential can easily go unrecognized. At the same time, difficulties with sustained attention and age-appropriate academic demands were also present, underscoring the varied and at times contradictory profile these children can present.

# Discussion

A recent study has reported that premature infants tend to remain more susceptible to respiratory tract infections over the long term, and that this susceptibility plays a significant role in preschool absenteeism and overall quality of life (Peralta et al., 2023). Half of the mothers in the present study reported experiencing this pattern of illness. Notably, these mothers managed to reframe a vulnerability into a form of competence. Those who developed stronger early intervention skills reported handling illness episodes more effectively. This finding aligns with a qualitative study conducted in South Korea, which similarly found that mothers raising premature children amid ongoing uncertainty gradually built a

form of practical expertise through lived experience (Lee, 2022). The "early intervention expertise" these mothers cultivated ultimately served as a protective factor in their children's school lives. Since respiratory illnesses rank among the leading causes of school absenteeism (Mameli et al., 2022), these timely and informed interventions may have contributed to minimizing absences. Research on childcare-based interventions further supports this finding: comprehensive early intervention programs that include parent education have been shown to reduce respiratory infection episodes by approximately 23% (Azor-Martinez et al., 2018). Beyond respiratory health, sensory development also emerged as a salient concern. The fact that nearly half of the participants reported vision or hearing problems in their children underscores the need to maintain sensory monitoring even in the 32–36 week gestational age group. Mitha et al. (2024) emphasized the value of continuing neurodevelopmental assessments in moderately and late preterm children through school age, and the findings of this study suggest that the same recommendation holds true for the preschool period as well.

A notable finding from the digital diary records concerns eating difficulties. One child repeatedly told both the teacher and the mother that he/she did not want to eat, yet offered no explanation for this reluctance throughout the entire week. The child's unwillingness to share the reason is, in itself, noteworthy. It may reflect limited interoceptive awareness (that is, difficulty identifying and articulating an internal bodily state) or it may point to an oral sensory sensitivity that the child has not yet developed the language to describe. Johnson et al. (2016) demonstrated that infants born late and moderately preterm face a significantly elevated risk of picky eating and oral motor difficulties at two years of corrected age, with refusal and picky eating showing a relative risk of 1.53 compared to term-born peers. Although this cohort-level risk pertains to toddlerhood, we suggest that the sensory processing patterns underlying early feeding difficulties do not simply resolve at a fixed developmental threshold; rather, they tend to persist and resurface under conditions of stress or environmental change, such as a school transition. Dodrill et al. (2004) further established that low-risk preterm infants remain at risk for alterations in oral sensitivity and facial defensiveness well into the second year of corrected age, with mealtime durations continuing to be prolonged relative to term-born controls. Within a school context, these residual sensory sensitivities may manifest not as dramatic refusal but as quiet, recurring reluctance: precisely the pattern captured in this diary entry. The child's silence around the reason for not wanting to eat, rather than indicating indifference, may thus reflect a sensory experience that has not yet found words.

Difficulties with fine motor tasks (cutting, coloring, and holding a pencil) have led some parents to withhold even age-appropriate tools such as knives out of safety concerns. This finding illustrates that fine motor delays can restrict not only academic participation but also independence in daily life. Bos et al. (2013) found that preterm infants, including those born at 32–34 weeks, experience difficulties in fine motor development, and that by school age more than 40% of very preterm children show notable difficulties in fine motor function. The underlying tension here lies in determining when parental concern crosses the threshold into a factor that limits a child's developing autonomy. In a qualitative study examining the adult experiences of individuals born preterm, more than half reported that their parents had experienced the premature birth as traumatic and had compensated through overprotective

parenting: a dynamic that, over time, undermined their independence (Stegmann-Woessner et al., 2025). The fact that some mothers in this study withheld even developmentally appropriate tools from their children suggests that a similar pattern may be taking shape during the preschool years as well.

The majority of participants describe their children as curious, quick to grasp new concepts, and capable, yet this encouraging picture becomes more nuanced when read alongside the literature on the cognitive effects of preterm birth. A systematic review of moderate-to-late preterm children documented that while this group had caught up with peers in some domains, mild difficulties in areas such as executive function and attention persisted (Martinez-Nadal & Bosch, 2021). The positive accounts mothers shared may therefore reflect not so much their children's overall competence as the conditions under which that competence emerges: chief among them, motivation. Mothers' observations about attentional variability (sustained focus in areas of genuine interest, rapid disengagement otherwise) are not simply subjective parental impressions. A neuroimaging study found that when task motivation was enhanced, the attentional performance of very preterm children improved markedly, yet this improvement did not produce the expected neural correlates, suggesting that motivation can temporarily compensate for underlying attentional difficulties without fully resolving them at the neural level (Retzler et al., 2025). In addition, some mothers reported that their children were able to sustain attention only in activities they found intrinsically motivating, while struggling to maintain focus in other tasks and structured activities. This pattern points to the importance of conducting thorough evaluations of these children for attention deficit hyperactivity disorder (ADHD), as existing literature consistently indicates that children born preterm are at significantly greater risk of exhibiting ADHD symptoms and receiving an ADHD diagnosis compared to their full-term peers (Mulder et al., 2009). It is therefore essential that attention and concentration difficulties observed during the preschool years be interpreted within a broader developmental risk framework, and that specialist assessment be sought where clinically warranted.

Inconsistency in academic performance fits naturally within this framework: the way factors such as low interest or impulsivity occasionally derail performance likely reflects fluctuations in working memory capacity rather than any ceiling on the child's ability (Pascoe et al., 2018). Emotional regulation difficulties represent the domain most frequently overlooked, yet most directly tied to learning. The intense emotional reactions described by P8 may point not to immaturity but to a differentially paced maturation of the brain circuits that govern the processing of negative affect (Urbain et al., 2019). It should also be noted that these moments of emotional flooding can pull a child's attention away from learning tasks entirely. The frequent preference for sensory and constructive play among these children may reflect not only their individual interests but also the environmental affordances available to them. In early childhood education settings, in particular, the widespread use of materials such as play dough, building blocks, and other structured resources likely provides children with repeated exposure to these forms of play, gradually shaping their preferences over time. Similarly, parents' deliberate efforts to make sensory and constructive play materials accessible at home, in order to support their children's development, may have further reinforced these tendencies. In this regard, P6 noted that her child frequently engaged with play dough at home and that she consciously made this material available to

him. Furthermore, the relatively high educational attainment of the participating mothers may have heightened their awareness of their children's developmental needs and individual differences, enabling them to organize play environments more responsively and provide materials conducive to developmental progress. It is therefore suggested that the play patterns observed in this study were shaped not solely by children's individual dispositions, but through the combined influence of family and school contexts, the play opportunities these environments afforded, and the degree of parental responsiveness to children's developmental needs.

Taking the play-related findings of this study as a whole, it is meaningful that sociodramatic play emerged as a clear preference among the majority of the group. Given that this form of play serves as a multilayered arena supporting language development, perspective-taking, and emotional regulation (Lillard et al., 2013), this preference can reasonably be understood as more than coincidental. The fact that these preterm-born children draw on a diverse range of play types (including symbolic, constructive, and sensory play) suggests that they possess a flexible play repertoire capable of adapting to varying circumstances and needs. At the same time, the tendency of some children to remain in an onlooker role rather than actively joining peer play groups stands out as a finding worthy of closer attention. Although onlooker behavior corresponds to an earlier developmental stage in Parten's (1932) classification, it would be premature to attribute this pattern directly to developmental regression or delay. Rather, this tendency may reflect the ways in which these children navigate and adapt to their social surroundings, the extent to which they feel secure within peer contexts, or their individual temperamental characteristics.

Peer-related difficulties in the digital diary data went beyond general social withdrawal and included clear instances of physical and verbal bullying. One child was physically assaulted by a peer over several consecutive days before the school administration became involved; another experienced repeated nickname-based taunting that triggered school refusal the following morning. These are not isolated incidents confined to a preterm sample; rather, they reflect a well-documented vulnerability. Preterm birth is associated with shorter stature, reduced assertiveness, and difficulties reading social cues, all of which elevate the risk of becoming a target of peer aggression (Bilgin et al., 2021). A prospective cohort study conducted in Germany found that individuals born preterm were significantly more likely to report bullying victimization in childhood, and that this victimization independently predicted poorer mental health outcomes in early adulthood even after controlling for socioeconomic and cognitive variables (Ni et al., 2025). What the diary data add to this picture is a process dimension that survey-based studies cannot easily capture: the day-by-day unfolding of a bullying episode, the child's delayed disclosure, and the ways in which the experience fed directly into avoidance of school. The child who did not tell the teacher about the physical bullying, out of what the mother interpreted as fear, illustrates the self-advocacy gap that has been noted in preterm populations, where difficulties with assertive communication and self-protective behavior may leave children more exposed in unstructured social settings (Johnson & Wolke, 2013).

The findings related to mothers' experiences represent one of the most critical points of this study. The data show that mothers actively work to balance supportive and regulatory interventions, generating multifaceted responses to the emotional, social, and developmental challenges that arise throughout the educational process. In the texture of everyday parenting, the interweaving of supportive and regulatory intervention reflects an adjustment to the early vulnerabilities associated with preterm birth. While mothers encourage their children's independence in self-care and routine management, they shift into a regulatory role when time pressure or safety concerns increase, offering verbal guidance and partial physical assistance as needed. This dual practice aligns with what the literature frames as "developmentally attuned parenting": calibrating support in response to the child's readiness, with the aim of nurturing self-efficacy while keeping overprotection in check (Korja, Latva, & Lehtonen, 2012).

Among mothers' experiences related to school life, the area of greatest difficulty is the transition process itself. The intense crying, clinging, and prolonged separation anxiety they observed during the transition from home to school is remarkably common in preterm children, and it aligns closely with the frequently reported tendencies toward internalization and difficulties in sensory-behavioral regulation (Johnson & Marlow, 2017; Montagna & Nosarti, 2016). We suggest that the separation anxiety experienced during the home-to-school transition may be understood as a long-term echo of the separations endured during the incubator period; early interaction patterns disrupted during the neonatal intensive care process may weaken the child's sense of internal security, resurfacing in new contexts such as the school environment. Notably, mothers themselves described this process in similar terms, characterizing it as reflecting "an increased need for secure attachment" in their children. Their repeated emphasis on their children "feeling safe" during this transition is therefore theoretically meaningful, resonating with the broader literature on attachment-related vulnerabilities following preterm birth (Korja et al., 2008; Provenzi et al., 2018).

Given that preterm birth and the experience of neonatal intensive care can leave lasting emotional imprints on mothers (Barnett et al., 2025; Shaw et al., 2023; Väliaho et al., 2021), it is plausible that some of the participating mothers maintained a more protective stance toward their children well into the preschool years. The anxiety, uncertainty, and traumatic memories associated with the premature birth itself and the period during which the infant remained in the incubator may not have fully subsided over time, potentially making the process of separation from their child more emotionally demanding for these mothers. We suggest that children who internalize and model their mothers' emotional responses and heightened anxiety may, as a consequence, experience greater difficulty navigating school transitions and separating from their primary caregivers. In this respect, some of the adjustment difficulties observed in these children upon entering the school environment may be linked not only to child-specific characteristics, but also to the longer-term effects of the preterm birth experience on the family system as a whole. They may also reflect processes of emotional transmission within the mother-child relationship.

Other difficulties in educational life point to themes such as trouble with social participation and resistance to desk-based activities. Mild to moderate differences in regulatory skills, sustained attention,

and sensory sensitivity are to be expected in preterm children, and these differences tend to become more pronounced during transitional periods such as starting school or changing classrooms (Aarnoudse-Moens et al., 2009). We suggest that the avoidance of desk-based activities may, in turn, stem from sensory-motor maturation delays associated with preterm birth. The fact that mothers in this study directed their children toward sports, arts, and cognitive enrichment courses as a way of reducing difficulties in school life and supporting their children's development represents a protective strategy that may help offset the limited individualized guidance some children receive within school settings. The most sustainable gains, however, appear to be achieved through multilayered models in which preterm follow-up programs are integrated with a robust school-family bridge (Benzies et al., 2013; Spittle et al., 2015).

The recommendations and institutional expectations mothers expressed regarding the post-preterm period reflect a demand for an ecosystem that supports individual self-efficacy while simultaneously easing the structural burden placed on families. Mothers first and foremost recommend self-regulatory strategies for navigating life after preterm birth: remaining calm, accepting the situation, maintaining consistent follow-up, and seeking multiple specialist opinions. At the level of policy and institutions, their wishes cluster around four themes: (a) standardizing family-centered care in neonatal units and ensuring access to psychosocial counselors; (b) extending maternity leave and secondary caregiver leave in cases of preterm birth; (c) providing brief, preterm-focused professional development modules for preschool and primary school teachers; and (d) expanding low-intensity intervention programs within school guidance units (such as visual supports and peer warm-up protocols) targeting separation anxiety and regulatory difficulties. These recommendations align well with the existing literature, though their effectiveness depends on the continuity of the service delivery model and on meaningful interdisciplinary coordination. The self-regulatory and social-cognitive difficulties that emerge in preterm children during the school years are better managed not through one-time assessments but through longitudinal evaluation in which developmental monitoring extends into the school years (Synnes & Hicks, 2018). In this context, integrated care models in which health, education, and psychosocial services communicate through a shared database reduce the burden on families of having to recount their history repeatedly, while also enabling early warning signs to be caught in time (Benzies et al., 2013). Furthermore, given the indirect influence of parental mental health on children's school adjustment, the inclusion of trauma-sensitive counseling and peer support groups for mothers in any policy package is particularly important (Provenzi et al., 2018; Treyvaud et al., 2019). Finally, culturally sensitive adaptations alongside scalable digital monitoring tools for under-resourced schools (such as online screening and assessment platforms) can serve as a lever for reducing inequities (Cheong et al., 2020).

# Implications for Pediatric Care

The present findings challenge the assumption that children born between 32 and 36 weeks of gestation follow a normative developmental trajectory by preschool age. Several implications for clinical practice emerge from the data.

Developmental surveillance should extend beyond neonatal discharge, as vulnerabilities in motor coordination, attentional regulation, and emotional processing may persist into the preschool period. Routine well-child visits offer an opportunity to screen for these subtler difficulties through brief parent-report measures or structured observation, rather than waiting for referral until overt impairment manifests.

Clinicians should routinely inquire about mealtime behavior and respiratory symptom history, as both may present in muted or easily overlooked forms; timely referral to feeding specialists or anticipatory guidance on early symptom recognition can help prevent downstream nutritional, relational, and school-attendance consequences.

Parental mental health warrants concurrent assessment, given its indirect but consequential influence on child outcomes. Pediatric encounters provide a natural context for brief maternal wellbeing screening and referral to psychological services where indicated.

Given the fragmented systems many families navigate, pediatric care can function as an integrating hub, facilitating coordinated access to educational, developmental, and community resources.

Finally, reassurance should be calibrated: messages implying that moderate-to-late preterm children invariably "catch up" may discourage timely help-seeking, whereas communication that acknowledges both strengths and areas of vulnerability empowers families to advocate effectively before difficulties become entrenched.

# Limitations of the Study

This study, which is qualitative and follows a phenomenological design, comes with certain limitations. The study group consists of mothers who had moderate to late preterm births and have children between 3–6 years of age. Although NICU admission was not an inclusion criterion for this study, the fact that all participating mothers had NICU experience constitutes a limitation. Fathers or other caregivers were not part of the study, so the findings only reflect the mothers' perspectives.

When we look at the sample size, it was completed with 8 participants, which aligns with the recommended range of 5–15 for phenomenological research. Since the number of participants is limited, the findings cannot be broadly generalized. However, it's important to keep in mind that qualitative research, by its very nature, aims for in-depth understanding rather than generalization.

Another limitation encountered during data collection was that the digital diary application did not work as expected. Six participants only filled in the weekly activity sections, four cited busyness or intensity as their reasons for not participating fully in the process. Additionally, none of the participants were able to submit audio recordings during the 10-week period. This situation limited the depth and variety of the data gathered through digital diaries.

The fact that interviews were conducted online was considered both a limitation and an advantage. On one hand, participants felt more comfortable in their own surroundings, which may have helped them express themselves more openly. On the other hand, some nonverbal cues that face-to-face interaction offers may have been missed. Also, since participants came from different regions, the online format became a necessity rather than just a preference.

Finally, this study relied solely on mothers' self-reports. Information about children's developmental status, school experiences, and peer relationships was limited to what the mothers shared. Teachers' views, school records, or direct observations were not included as additional data sources. Future research could incorporate multiple information sources, which may contribute to a more comprehensive understanding of the topic.

# Conclusion

The findings of this study reveal a more textured picture of development among children born between 32 and 36 weeks of gestation than the assumption of a normative preschool trajectory would suggest: health fragility, motor coordination difficulties, attentional variability, and emotion regulation challenges persist in ways that call for continued monitoring and support. While the coping strategies mothers have developed are invaluable, individual effort cannot substitute for professional support systems. Increasing awareness among early childhood educators and health professionals regarding this population will serve as a critical lever, both for children's developmental outcomes and for maternal well-being. Sustainable progress will depend on an integrated ecosystem linking families, schools, and health services, one in which preterm birth ceases to be a fixed disadvantage and instead becomes a manageable developmental variable.

***What This Study Adds***

While existing literature maps developmental risk in quantitative terms, the lived experience of how these risks unfold in classrooms and daily routines (particularly in the 32–36 week group and within non-Western contexts) remains underexplored. This study foregrounds maternal voice and reconstructs the everyday practices through which families navigate prematurity's enduring traces.

- *Health vulnerability as parental competence:* Mothers who developed "early intervention expertise" (recognizing prodromal signs of respiratory illness and responding swiftly) effectively minimized school absences, suggesting that targeted parent education may function as a low-cost protective factor.
- *Eating difficulties as a silent sensory signal:* A child's week-long reluctance to eat, shared with neither teacher nor parent, illustrates how oral sensory sensitivities rooted in preterm birth can persist into the school years in a muted, behaviorally ambiguous form. Real-time diary data were necessary to surface this pattern; it would likely have been missed in a retrospective interview.

- *Bullying victimization as a school-refusal pathway:* The diary records document, day by day, how physical and verbal peer aggression translated directly into the next morning's school refusal. This process-level evidence extends existing survey data on preterm bullying risk by showing the lived sequence (delayed disclosure, fear-based silence, and eventual avoidance) that aggregate statistics cannot capture.
- *Toward an integrated ecosystem:* The absence of systematic guidance and psychological services within schools emerged as a recurring theme, with mothers compensating through extracurricular activities and multiple specialist consultations. Sustainable gains require an architecture linking parental support, teacher training, and coordinated health-education-psychosocial services, transforming preterm birth from a deterministic disadvantage into a manageable developmental variable.

# Declarations

### Ethical Considerations

Ethics approval for the study was provided by the Kırıkkale University Ethics Committee under reference: 11/44 on 19.11.2025. For this study clinical trial number is not applicable. Mothers were informed about the content of the study, and both verbal and written consent were obtained from each participant. They were told that their data would be kept anonymous, used solely for the purposes of this study, and that participation was entirely voluntary.

The audio recordings from the interviews were uploaded to the Transkriptor software and transcribed so that written transcripts could be prepared. Once the recordings had been converted to text, all audio files were permanently deleted in order to safeguard participant confidentiality and data security; only anonymized text data were used during the analysis process.

### Funding statement

The authors did not receive support from any organization for the submitted work.

### Declaration of generative AI and AI-assisted technologies in the writing process

While composing this work, the authors made use of the AI tools Claude Opus 4.5, Sonnet 4.6 and ChatGpt to improve the readability and use of language, as English is not their native language. In addition, these tools were used to arrange the reference list in alphabetical order and format it according to APA 7 guidelines. Their use was limited strictly to formatting and organizational purposes; they were not used to generate references, create DOI numbers, or produce any bibliographic information. All references and DOI numbers have been carefully verified and are accurate and accessible.

### Data availability statement

The original data is in Turkish. In line with the principles of scientific transparency, the data have been uploaded to the OSF portal and are accessible exclusively for peer review purposes; however, the qualitative interviews remain closed to public access due to data confidentiality requirements.

A data access link is avaliable for editors & peer review process:

https://osf.io/svf6n/overview?view_only=550e078d907348e2b2f8111405218d8a (This part will be deleted after peer rewiev)

**CRediT Authorship contribution statement**

Reacher 1: data collection, thematic & content analysis, writing results & discussion & resources, writing – review and editing

Reacher 2: data collection, thematic & content analysis, validation, writing methodology & introduction & resources, writing – review and editing

**Declaration of competing interest**

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# Figures




**Figure 1**

The thematic map showing themes and sub-themes (This figure was generated by the first researcher using the Maxqda software)

# Supplementary Files

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