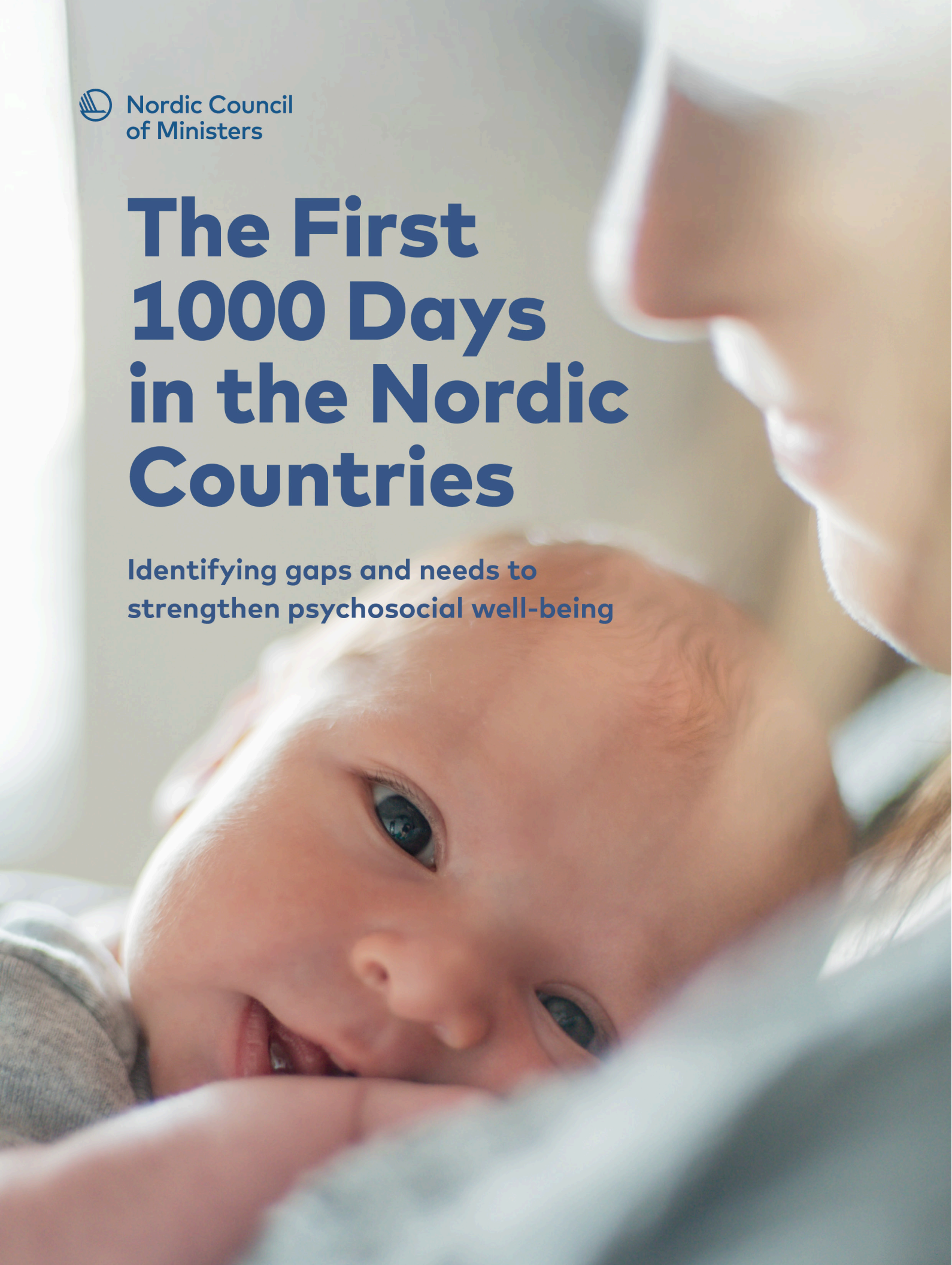


The First 1000 Days in the Nordic Countries

Identifying gaps and needs to
strengthen psychosocial well-being



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Executive summary

This report is part of a broader Nordic collaboration within the Nordic Network about the Child's First 1000 Days – a healthy start in life, on behalf of the Nordic Council of Ministers. It contributes to the network's core mission: strengthening knowledge sharing, supporting the systematic use of evidence-based approaches, and strengthening implementation capacity across Nordic social and healthcare systems to promote children's well-being from pregnancy to two years of age. It is intended for policymakers, civil servants, service developers, clinicians and researchers across the Nordic region who are involved in planning, delivering and/or developing services for families during the first 1000 days of life.

This report summarises the findings of 167 meta-analyses and systematic reviews, an evaluation of psychosocial interventions in Nordic and international evidence portals, and Nordic expert dialogues conducted in 2025. The synthesis was organised using the WHO maternal well-being framework which guides the interpretation of evidence across its six domains and supports a coherent understanding of psychosocial risks, protective factors and effective interventions (Le Lez, 2025). Together, these sources provide an overview of psychosocial well-being during the first 1000 days of life, highlighting the main risks, protective factors and intervention gaps affecting families across the Nordic region. These results can inform the development of services for the first 1000 days of life.

Key findings

Perinatal mental health a major concern

Maternal depression, anxiety, trauma-related symptoms and psychosocial distress are common, and are associated with poorer parental well-being, impaired parent–infant interaction and risks for children's health and development. Fathers and partners face similar risks as mothers, yet their needs are rarely systematically assessed. Risks to a child's well-being begin before birth and shape later health and development, making parental mental health a critical (pages 22-45). Nordic expert discussions highlighted the need to further develop and clarify care pathways for families facing mental health challenges, as current gaps in services continue to affect the continuity of care and overall outcomes (page 54).

Risk factors are often related and reinforce each other

Parental mental health issues, loneliness, financial strain, socioeconomic inequalities, negative care experiences and migration-related stress are often related. These cumulative factors increase the likelihood of poor outcomes for both parents and children (pages 22-84).

Substantial inequities within and between groups

Migrant, minority and indigenous families disproportionately experience high levels of psychosocial distress and face barriers to care, including linguistic obstacles and limited access to culturally responsive support and effective interventions. There is limited evidence on the factors related to the psychosocial well-being and experiences of infants, non-birthing parents, Sámi, sexual and gender minorities (LGBTQ+), migrants, parents with disabilities and single parents (pages 79- 83).

Existing interventions do not cover all needs

The review identified over 60 effective interventions internationally and 28 that have been evaluated as effective within Nordic contexts. However, most have focused on maternal depression and universal parenting support, with few addressing trauma, cumulative risks or culturally diverse families. Fragmented care pathways, uneven screening, limited culturally sensitive practices and regional disparities hinder the systematic use of effective methods.

Protective factors are well known but access to interventions uneven

Consistent promotion of good outcomes is achieved through social support, continuity of care, sensitive early interaction, stable income and living conditions, culturally safe care and timely identification of risks. However, access to interventions aimed at supporting these factors varies between regions and population groups.

Policy implications

The findings suggest that while the Nordic countries have strong universal services and extensive expertise, existing systems do not sufficiently reflect the complexity of psychosocial risks or ensure equal access to timely and appropriate support. Effective interventions exist, but their potential is constrained by evidence gaps, inequities and structural barriers.

Next steps

To bring about change and address the identified gaps and barriers, the following measures are proposed:

Nordic level

Develop a shared assessment and implementation model for effective psychosocial interventions to support scalability, quality assurance and consistency across the Nordic region.

- The model should support the selection of interventions that are suitable for high-risk groups.
- The model should strengthen systematic, cross-country research on intervention effectiveness, enabling the identification of evidence gaps and ensuring that the needs of minority and high-risk groups are addressed.

Strengthen knowledge exchange and dissemination of good practices between the Nordic countries.

- Develop joint training modules on perinatal mental health and early interaction support.
- Establish regular Nordic knowledge-sharing forums to disseminate implementation experiences and good practices across countries.

National level

Strengthen and further develop consistent care pathways and stepped-care models that align with national service structures.

- Assess national capacity and readiness by reviewing identified needs and intervention gaps in relation to legislation, service models and available resources.
- Support the systematic implementation of interventions found effective in the Nordic context by establishing national frameworks, funding structures and training programmes that enable consistent adoption across service settings.

Ensure equitable access to perinatal support for all families.

- Develop culturally sensitive and accessible services for parents with disabilities, sexual and gender minorities and immigrant families and assess equity implications.
- Develop national training programmes on perinatal mental health and early interaction support.

Regional level

Support the local implementation of interventions found effective in the Nordic context.

- Conduct local context analyses to identify obstacles and enablers and ensure staff training and practical implementation planning to embed interventions to regional service structures.

Strengthen multiprofessional perinatal teams and family-centred care.

- Ensure systematic screening of risk factors for all parents, including fathers and non-birthing parents.
- Support peer support groups and community-based models, including father groups and family coaching.
- Strengthen attention in services to cultural and linguistic accessibility for migrant, minority and indigenous families.

→ **Read more:** [Development and care model in the Nordic countries](#)

Overall conclusion

The Nordic countries have a strong foundation for supporting families in the first 1000 days, yet a clear gap remains between available evidence and the equitable delivery of effective interventions. Current approaches do not consistently reach all population groups or identified needs, and further progress requires strengthening multidisciplinary care pathways and stepped care models that ensure timely, proportional and culturally sensitive support across service levels. The WHO maternal well-being framework appears well suited to structuring these needs and the phenomena linked to perinatal mental health.

Collaboration between the Nordic countries can add value in evaluating interventions for rare or high-risk groups, developing culturally adapted care and developing shared implementation models. By pooling evidence and aligning training and implementation frameworks across borders, a shared Nordic approach avoids costly duplication of development work and generates more robust findings than any single country could produce independently. Progress should be coordinated at the Nordic, national and regional levels to develop coherent and equitable perinatal mental health systems, with each level supporting the next. A coordinated Nordic approach can ensure that all families in the Nordic region receive timely, appropriate and equitable support during the first 1000 days of life.

Sammanfattning

Denna rapport är en del av ett bredare nordiskt samarbete inom det Nordiska nätverket om Barnets första 1000 dagar – en hälsosam start på livet, på uppdrag av Nordiska ministerrådet. Rapporten bidrar till nätverkets kärnuppdrag: att stärka kunskapsdelning, stödja systematisk användning av evidensbaserade interventioner och stärka kapaciteten för implementering i de nordiska social- och hälsovårdssystemen för att främja barns välbefinnande från graviditet till två års ålder. Den riktar sig till beslutsfattare, tjänstemän, praktiker och forskare i Norden som är involverade i planering, genomförande och/eller utveckling av insatser för familjer under de första 1 000 dagarna i livet.

Rapporten sammanfattar resultaten från 167 metaanalyser och systematiska granskningar, bedömning av psykosociala interventioner i nordiska och internationella evidensportaler samt från nordiska expertdialoger, som genomfördes 2025.

Sammanfattningen genomfördes med hjälp av WHO maternal well-being framework, som vägleder tolkningen av evidens i sex dimensioner och förståelse av psykosociala risk- och skyddsfaktorer samt effektiva interventioner (Le Lez, 2025). Tillsammans ger de olika källorna en översikt över det psykosociala välbefinnandet under barnets första tid i livet och lyfter fram de viktigaste risk- och skyddsfaktorerna och brister i insatser, som påverkar familjer i hela Norden. Resultaten kan vägleda utvecklingen av interventioner under de första 1000 dagarna i livet.

Resultat

Perinatal psykisk hälsa är ett stort problem

Förlossningsdepression, ångest, traumarelaterade symtom och psykosocial stress är vanliga och förknippas med sämre välbefinnande hos föräldrar, försämrat samspel mellan förälder och barn samt risker för barns hälsa och utveckling. Fäder möter liknande risker som mödrar, men deras behov bedöms sällan systematiskt. Riskerna för barnets välbefinnande uppstår före födseln och formar barnets hälsa och utveckling, vilket gör föräldrarnas psykiska hälsa avgörande. I nordiska expertdiskussioner lyftes behovet av att vidareutveckla och tydliggöra vård och stöd för familjer som står inför psykiska utmaningar fram, eftersom nuvarande brister påverkar kontinuiteten i vården och dess effekter.

Riskerna är ofta kumulativa och ömsesidigt förstärkande

Föräldrarnas problem med psykisk hälsa, ensamhet, ekonomisk belastning, socioekonomiska ojämlikheter, negativa vårdupplevelser och migrationsrelaterad stress hänger ofta ihop. Dessa kumulativa faktorer ökar sannolikheten för sämre utfall för både föräldrar och barn.

Det finns betydande ojämlikheter inom och mellan befolkningsgrupper

Migrant- och minoritetsfamiljer samt familjer som tillhör urfolken upplever oproportionerligt höga nivåer av psykosocial stress och möter hinder för vård, inklusive språkliga hinder och begränsad tillgång till kulturellt anpassat stöd och effektiva insatser. Evidensen är begränsad för risk- och skyddsfaktorer som påverkar psykosocialt välbefinnande och upplevelser hos spädbarn, icke-födande föräldrar, samer, sexuella och könsminoriteter (LGBTQ+), migranter, föräldrar med funktionsnedsättning och ensamstående föräldrar.

Befintliga insatser täcker inte alla behov

I granskningen identifierades över 60 effektiva interventioner internationellt och 28 som har bedömts vara effektiva i en nordisk kontext. De flesta har dock fokuserat på förlossningsdepression och universellt föräldrastöd, medan ett fåtal behandlar trauma, kumulativa risker eller familjer med kulturell mångfald. Fragmenterad vård, ojämn screening, begränsad kulturanpassning och regionala skillnader utgör hinder för systematisk användning av effektiva insatser.

Skyddsfaktorer är välkända men tillgång till interventioner är ojämlik

Långsiktigt goda resultat uppnås genom socialt stöd, kontinuitet i vård- och stödinsatser, stöd till tidig anknytning mellan föräldrar och barn, stabila försörjnings- och levnadsförhållanden, kulturellt anpassad vård och stöd och tidig identifiering av risker. Tillgång till insatser som hanterar dessa faktorer varierar dock mellan regioner och grupper i befolkningen.

Policyimplikationer

Resultaten indikerar att även om de nordiska länderna har väl utbyggda välfärdssystem och hög expertis, återspeglar de befintliga systemen inte komplexiteten i psykosociala risker i tillräcklig utsträckning och säkerställer inte jämlik tillgång till rätt stöd vid rätt tidpunkt. Det finns effektiva interventioner, men potentialen begränsas av bristande evidens, ojämlikhet och strukturella hinder.

Nästa steg

För att åstadkomma en förändring och åtgärda identifierade brister och hinder föreslås följande åtgärder:

Nordisk nivå

Utveckla en gemensam bedömnings- och implementeringsmodell för effektiva psykosociala insatser för att stödja skalbarhet, kvalitetssäkring och enhetlighet i hela Norden.

- Modellen bör stödja val av insatser som lämpar sig för högriskgrupper.
- Modellen bör stärka systematisk, gränsöverskridande forskning om effektivitet i metoder och program, möjliggöra identifiering av evidensluckor och säkerställa att behoven hos minoritets- och högriskgrupper tillgodoses.

Stärk kunskapsutbyte och spridning av god praxis mellan de nordiska länderna.

- Utveckla gemensamma utbildningsmoduler om perinatal psykisk hälsa och stöd för tidig anknytning mellan föräldrar och barn.
- Etablera regelbundna nordiska forum för kunskapsdelning i syfte att dela erfarenheter mellan länderna gällande implementering och god praxis.

Nationell nivå

Stärk och vidareutveckla enhetliga vägar till vård och stöd och stegvisa vårdmodeller i linje med nationella strukturer.

- Bedöm nationell kapacitet och beredskap genom att granska identifierade behov och brister i insatser i förhållande till lagstiftning, utbud av insatser och tillgängliga resurser.
- Främja systematisk implementering av insatser som har visat sig vara effektiva i nordisk kontext genom att etablera nationella ramverk, finansieringsstrukturer och utbildningsprogram.

Säkerställ rättvis tillgång till perinatalt stöd för alla familjer.

- Utveckla kulturellt anpassade och tillgängliga tjänster för föräldrar med funktionsnedsättning, sexuella och könsminoriteter och invandrarfamiljer samt bedöm implikationer ur ett jämställdhetsperspektiv.
- Utveckla nationella utbildningsprogram om perinatal psykisk hälsa och stöd för tidig anknytning mellan föräldrar och barn.

Regional nivå

Stöd till lokal implementering av insatser som har visat sig vara effektiva i en nordisk kontext.

- Genomför lokala kontextanalyser för att identifiera hinder och möjligheter och säkerställ personalutbildning och praktisk implementeringsplanering för att grunda insatserna i regionala strukturer.

Stärk multiprofessionella perinatale team och familjecentrerad vård och stöd.

- Säkerställ systematisk screening av riskfaktorer för alla föräldrar, inklusive fäder och icke-födande föräldrar.
- Främja stödgrupper och lokala program, inklusive grupper för fäder och familjerådgivning.
- Öka fokus på kulturell och språklig tillgänglighet för migrant- och minoritetsfamiljer samt familjer som hör till urfolken.

Slutsatser

De nordiska länderna har en stark tradition av att stödja familjer under de första 1 000 dagarna, men det finns fortfarande en tydlig klyfta mellan tillgänglig evidens och jämlik tillgång till effektiva insatser. Nuvarande praxis når inte alla grupper i befolkningen och täcker inte alla identifierade behov. För att nå framgång krävs förstärkning av multidisciplinär vård och stöd och stegvisa vårdmodeller som säkerställer tidiga insatser, och adekvat och kulturellt anpassat stöd på flera nivåer. WHO maternal well-being framework tycks vara väl lämpat för att strukturera de behov och de faktorer som är kopplade till perinatal psykisk hälsa.

Samarbete mellan de nordiska länderna kan ge mervärde för bedömning av insatser för minoritets- och högriskgrupper, utveckling av kulturellt anpassad vård och stöd och utveckling av gemensamma implementeringsmodeller. Genom att samla evidens och anpassa ramverk för utbildning och implementering över landsgränser kan kostnader för utvecklingsarbete fördelas mellan länder och generera mer robusta resultat. Utvecklingsarbetet bör samordnas på nordisk, nationell och regional nivå för att utveckla sammanhängande och jämlika system för perinatal psykisk hälsa, där varje enskild nivå stöder nästa. Genom nordiskt samarbete kan länderna bättre säkerställa att alla familjer i Norden får adekvat och jämlikt stöd i rätt tid under de första 1000 dagarna i livet.

Introduction



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The aim of this report is to provide an overview of needs and gaps to strengthen psychosocial well-being during the first 1000 days of life. It identifies current needs for psychosocial support and promotes the systematic use of effective, evidence-based interventions for expectant parents, children under two years of age and their families across the Nordic region. The report synthesises literature, intervention reviews and expert insights to inform future implementation strategies in the Nordic countries. This report is part of the ongoing work of the Nordic Network about the child's first 1000 days – a healthy start in life, which builds upon the earlier The First 1000 Days in the Nordic Countries project 2019–2022.

The First 1000 Days is a concept that refers to the period from conception to first two years of a child's life, and its importance is well recognised in research, policy and practices. These first years in a child's life are an essential foundation for development and lifelong health and well-being. In the early years, brain development is rapid and exceptionally receptive to influences, and it forms the foundation for cognition, regulative functions and academic achievements (Shonkoff et al., 2012). Robust evidence demonstrates that early experiences affect health and well-being, as well as behaviour and social relationships in later life (Darling et al., 2020).

In this report: The perinatal period refers to the time from pregnancy through childbirth and the postnatal period, extending to the child's first two years of life. This definition aligns with the First 1000 Days framework and captures the critical developmental and psychosocial transitions that affect parental and child well-being. The psychosocial well-being refers to a multidomainal state that encompasses an individual's psychological, emotional and social functioning, which includes the capacity to cope with everyday stress, maintain meaningful social relationships, develop personal and cognitive strengths, and function effectively as a member of society (Kumar, 2020).

Background

The Nordic network about the child's first 1000 days – a healthy start in life

The *Nordic network about the child's first 1000 days - a healthy start in life* brings together experts from all Nordic countries and the Nordic Welfare Centre under a mandate from the Nordic Council of Ministers to strengthen knowledge sharing and collaboration that support children's development and well-being from pregnancy to two years of age (NWC). The network promotes collaboration and knowledge sharing among the Nordic countries on early childhood development, emphasising the need for policies that prioritise the early years, including the period of pregnancy. The network disseminates research, knowledge and understanding about the first 1000 days of life and supports actions that can strengthen Nordic research and address risk factors more effectively through evidence-based psychosocial interventions. Representatives from Denmark, Finland, Iceland, Norway and Sweden, as well as the Nordic Welfare Centre, are members of the Network. The work of the network contributes to the implementation of Vision 2030 of the Nordic Council of Ministers and the United Nations' Agenda 2030 for Sustainable Development, which both recognise that good health, including mental health of the child and its family, is essential to the child's life and development (Nordic Council of Ministers, 2020).

The network was formed in 2023 to follow up on the recommendations that were developed during the project "*The First 1000 Days in the Nordic Countries*", which was implemented in 2019–2022 with funding from the Nordic Council of Ministers. This project identified both strengths and challenges in supporting young children's health and well-being in the Nordic countries. Each Nordic country has its own structure and universal healthcare and social services, in which prenatal and infant healthcare services are well established, free of charge and accessible to all families. The guidelines for services in the Nordic countries emphasise supporting the child's health and development, as well as the parent–child relationship, from pregnancy onwards. They also emphasise the systematic identification of risks and an early response to them (Daníelsdóttir & Ingudóttir, 2020, 2022). With their strong welfare systems, the Nordic countries are thus well positioned to ensure optimal conditions for child development.

Despite these strengths, the *First 1000 Days in the Nordic Countries* project (2019–2022) revealed significant gaps. Few of the reported psychosocial interventions that are in use in the perinatal period have been rigorously evaluated. Thus, the effectiveness of many widely implemented interventions remains unknown. Existing evidence-based interventions do not cover all relevant problem areas, and interventions with strong evidence are not consistently disseminated. The lack of comprehensive training structures and implementation plans further limits the adoption of validated approaches in practice (Martinussen & Kurki, 2021).

To address these challenges, there is a clear need for Nordic collaboration to encourage the implementation of psychosocial support across all levels of care. Joint efforts can pool resources, align training and support the structured implementation of validated interventions in the Nordic countries.

This report is the part of the new Nordic project *Improving Child Health in the First 1000 Days (2025–2026)*, which aims to strengthen the systematic application of evidence-based methods within social and healthcare services, and to enhance implementation expertise across the Nordic countries. The project is funded by the Nordic Council of Ministers and coordinated by Itla Children’s Foundation (Finland), in collaboration with the Nordic Network about the child’s first 1000 days – a healthy start in life.

Successful implementation is based on careful exploration and preparation

The perinatal field includes a wide range of interventions and policy frameworks that guide professionals to consider the psychosocial well-being and mental health of families within maternity and child health services (Reisenberger & Paul, 2022; World Health Organization [WHO], 2022). Effective implementation of evidence-based interventions in perinatal mental health care requires a structured, multi-level approach. Interventions become effective for families only through successful implementation. Research consistently demonstrates that weak implementation processes undermine the impact of interventions, even when strong evidence exists (Proctor et al., 2013; Nielsen, 2015; Schaefer et al., 2024; Webb et al., 2021).

The situation analysis by Daníelsdóttir & Ingudóttir (2020) identified gaps in practices. The inconsistent use of validated methods, unequal access to services, limited cross-sectoral collaboration and insufficient evidence for many existing interventions indicate that the key challenges in the Nordic countries are not only about what services exist, but also how they are implemented. Qualitative insights from the project further demonstrate that coherent implementation structures are largely lacking across all countries (Daníelsdóttir & Ingudóttir, 2020). For this reason, the report is framed through an implementation perspective: strengthening implementation capacity is essential for ensuring that effective, evidence-based practices are systematically adopted, scaled and sustained in real-world services for young children and families.

A well-designed implementation process strengthens the identification of needs, supports the selection of appropriate interventions and enhances the fidelity, quality and sustainability of clinical practices, ultimately enabling intended improvements in service and clinical outcomes (Proctor et al., 2013). The EPIS Framework is a conceptual model that describes the phases of implementation: Exploration, Preparation, Implementation and Sustainment. It provides a structured way to examine the multilevel factors (organisational, relational, cultural and systemic) that shape whether and how interventions take root in practice (Aarons et al., 2011; Moullin et al., 2019). The phases of the model support coherent planning and implementation by clarifying why an intervention is needed, building the capacity for delivery, guiding its application in practice and ensuring its long-term integration (Moullin et al., 2019). The EPIS Framework describes implementation as a process unfolding across four phases:

- Exploration: assessing needs and identifying suitable interventions and contextual fit;
- Preparation: planning implementation strategies, including identifying barriers and facilitators;
- Implementation: carrying out the intervention while monitoring quality and fidelity;
- Sustainment: maintaining long-term delivery and impact.

The exploration phase involves examining the emerging or existing needs of the target group and identifying evidence-based interventions best suited to address them (Stanton et al., 2022). Evidence-based parenting interventions are essential during the perinatal period, as they have been shown to be effective and not harmful through rigorous scientific outcome evaluations (WHO, 2022). In the perinatal context, this means determining the most significant psychosocial challenges faced by families and aligning appropriate interventions with these challenges, as well as with the surrounding service system, political environment and societal conditions (Webb et al., 2021).

While this report identifies relevant needs and a range of suitable interventions, their ultimate implementation must be grounded in country- and region-specific processes to ensure contextual relevance and effectiveness. Research in perinatal health services further emphasises that implementation must account for multiple levels simultaneously: service users, professionals, organisations and broader societal norms, policies and legislation (Webb et al., 2021). The interaction between these levels shapes decisions from early interest in an intervention to its long-term sustainment. Ensuring that evidence-based practices fit both internal and external contexts, supported by explicit measures for these contextual factors, is critical for progressing from early exploration to implementation and sustainment (Moullin et al., 2019).

Without such grounding, selected practices may fail to address genuine gaps or stakeholder priorities. Although this report focuses specifically on the 'exploration' phase, the EPIS model provides a structure that can later be used to develop local implementation plans and to select strategies that fit the requirements of each operational context.

Aim of the report

This report is part of a Nordic project entitled *Improving Child Health in the First 1000 Days (2025–2026)*, which is funded by the Nordic Council of Ministers and implemented by the Nordic Network about the child's first 1000 days – a healthy start in life, together with Itla Children's Foundation. The purpose of the project *Improving Child Health in the First 1000 Days (2025–2026)* is to identify current risk and protective factors, as well as existing and effective psychosocial interventions, to build an overall picture of the support available during the first 1000 days of life. The aim of this report is four-fold. It aims to:

1. Update information on risk and protective factors, as well as existing and effective interventions in the countries.
2. Connect information on risk and protective factors and existing, effective interventions with research on implementation in order to create a current picture of the need for support in the countries during the first 1000 days of life.
3. Build a comprehensive understanding of the relevant psychosocial challenges during the perinatal period, through the identification of effective psychosocial interventions.
4. Address psychosocial challenges during the perinatal period and assess where additional psychosocial interventions are needed.

This report fulfils the aim through a synthesis of three different information sources on psychosocial well-being during the perinatal period:

- **First**, it explores the risk and protective factors that influence the psychosocial well-being of parents and children during the perinatal period of life based on a *descriptive literature review*.
- **Second**, it maps the psychosocial interventions relevant to the perinatal period that have been evaluated and demonstrated to be effective based on a *review of intervention information portals*.
- **Third**, it collects the summary notes from *Nordic expert group discussions on current phenomena and national concerns about supporting families during the first 1000 days of life*.

Finally, it synthesises this information in relation to the WHO definition and conceptual framework for maternal well-being (see chapter *The maternal well-being framework (WHO)*). The gathered information aims to support the identification, adaptation and implementation of evidence-based interventions across the Nordic region.

Material and methods

The following section outlines the sources of information used in this report and presents the key questions guiding the analysis.

Literature review

To identify the current knowledge of the risks and protective factors, in addition to existing gaps, a literature review of meta-analyses and systematic reviews was conducted. The focus was on topics suitable for low-threshold psychosocial support and preventive approaches. Specifically, the literature review sought to answer the following question:

- *What are the key risk and protective factors influencing the psychosocial well-being of parents and children during the perinatal period?*

The search query and inclusion criteria, together with the PRISMA flowchart, are presented in [Appendices 1–2](#).

Table 1. Inclusion and exclusion criteria in the literature review.

Inclusion criteria	Exclusion criteria
The study was peer-reviewed	The study was not peer-reviewed (e.g., editorials and commentaries)
Correct target group (parents in the perinatal period and children aged 0–24 months)	Incorrect target group
Meta-analyses and systematic reviews from high-income countries	Other study types or studies conducted outside high-income countries
Articles written in English	Research articles in languages other than English
Articles published from 2010 onwards	Articles published before 2010

Certain risk factors were excluded because of their characteristics (e.g., cases managed in specialised healthcare, globally and societally exceptional periods):

- *Preterm birth or low birth weight* represents its own extensive research subgroup, which is treated within specialised healthcare, and was therefore excluded from this review.
- *Feeding difficulties*, while impactful on family well-being, also demand specialised expertise and were therefore excluded from this review.
- *Adolescent motherhood* was not prioritised, because it represents only approximately 0.3–1.1% of mothers in the Nordic countries (Heino & Gissler, 2024), although its prevalence and related interventions are higher in some other contexts.
- *COVID-19-related studies* were excluded to avoid context-specific and time-bound factors, as the review aimed to identify risk and protective factors relevant to stable healthcare and social service environments.

Mapping of psychosocial intervention information portals

Evidence-based psychosocial interventions for the perinatal period were mapped, compiled and examined in relation to identified risks. The review focused on interventions that had been rated as effective in the evaluation systems in relevant web-based information portals. The question for this review was:

- *Which psychosocial interventions relevant to the perinatal phase have been evaluated as effective?*

The mapping was initiated by reviewing Nordic online intervention information portals and exploring the publication from the project's previous phase in 2021, i.e., *The First 1000 Days in the Nordic Countries Psychosocial Interventions and Psychological Tests: A Review of the Evidence*, by Martinussen and Kurki (2021). The mapping focused on online intervention portals that collect research evidence on interventions and evaluate and grade their effectiveness and are designed for professionals, with the aim of helping them make evidence-based decisions regarding the use of methods in services for children and families. The evaluation experts in the Finnish Kasvun Tuki Intervention Bank were consulted in the selection of relevant portals.

One portal for each Nordic country that had such portals was selected to review. The searches conducted in these portals mainly served as a complementary step to identify whether new Nordic interventions assessed as effective had been published after 2021. Only those interventions in the intervention information portals that provided an English language summary describing their effectiveness assessment were selected. (See inclusion and exclusion criteria in Table 2).

Table 2. Inclusion and exclusion criteria in the psychosocial intervention portal mapping.

Inclusion criteria	Exclusion criteria
The information portal was recognised and recommended by evaluation experts for the Kasvun tuki intervention bank	The information portal was not recognised and recommended by evaluation experts for the Kasvun tuki intervention bank
The intervention was targeted at the perinatal phase, or the perinatal phase was included in the target age group	The intervention was not targeted at the perinatal phase, or did not include the perinatal phase as a target age group
An English summary was included	No English summary was available
Effectiveness was rated 2–4 in Nordic portals and 3–5 in the Kasvun tuki evaluation system (see Table 3)	Effectiveness was rated 0–1 in Nordic portals and 0–2 in the Kasvun tuki evaluation system
Published by spring 2025	Evaluation was in progress and not published by spring of 2025 (January–April)
Information is publicly available in on-line source	Not publicly available or not in on-line source

This review was further supplemented by two *British and American information portals*. These were included in this review to provide a broader international perspective on interventions rated as effective. On some occasions, English-language interventions that had demonstrated effectiveness in other contexts were adapted and suggested to be introduced in a Nordic setting.

The intervention information portal review was conducted in spring of 2025, between January and April, based on information published in relevant portals. The portals used in this mapping review are introduced in Table 3. Please note that evaluations and research are ongoing, which may influence future assessments of effectiveness. The up-to-date information is recommended to be monitored through the evidence portals.

Table 3. Psychosocial intervention information portals and the level of evidence selection.

Reference	Country	Level of evidence (or grade of certainty of evidence) selected
<u><i>The First 1000 Days in the Nordic Countries. Psychosocial Interventions and Psychological Tests: A Review of the Evidence</i></u>	Nordic countries network	2–4
<u><i>Kasvun tuki</i></u> – <i>Kasvun tuki Intervention bank</i>	Finland	3–5
<u><i>Ungsinn</i></u> – <i>An electronic scientific journal on mental health interventions for children and young people</i>	Norway	2–4
<u><i>SBU</i></u> – <i>Swedish Agency for Health Technology Assessment and Assessment of Social Services</i>	Sweden	2–4 (moderate–effective)
<u><i>EIF</i></u> – <i>Early Intervention Foundations, What works centre for children and families</i>	United Kingdom	3–4
<u><i>NHS</i></u> – <i>Early Intervention Framework for Children and Young People's Mental Health and Well-being</i>	United Kingdom	3–5
<u><i>CEBC</i></u> – <i>California Evidence-Based Clearinghouse</i>	USA	1–3 (reverse scale)
<u><i>Blueprints for Healthy Youth Development</i></u>	USA	Model or model plus

The checkmarks in this summary reflect what was indicated as the *primary target group* or *objective* in the portal descriptions for each intervention. For each intervention, one primary target group and one primary objective were selected based on the main focus described in the portal (see Appendices 3 and 4 for detailed information). Many interventions were found to have multiple secondary goals and effects, so additional checkmarks could apply in practice. The lists of selected psychosocial interventions, both from Nordic databases and others, are included with direct links to the web pages of each portal review ([Appendices 3 and 4](#)).

Nordic expert discussions

Nordic perinatal experts were invited during autumn 2025 to participate in national discussions based on the first summary of the findings in the scientific literature search. The representatives from each country in the Nordic network about the child's first 1000

days invited national experts on perinatal care and support to participate in a discussion. These dialogues focused on identifying and discussing *current phenomena and national concerns* that require further research and solutions (identified gaps). The key points from these discussions were written down, consolidated and are presented in this report under each domain chapter. The Nordic countries participating in these discussions were Finland, Iceland, Norway and Sweden. No separate expert discussion was held in Denmark. The Danish representatives in the Nordic network have assessed that the issues raised by other experts also reflect the situation in Denmark.

The maternal well-being framework (WHO)

In the following sections, the risks and protective factors identified in the literature, the interventions identified in the database review and insights from Nordic expert discussions are categorised in relation to the WHO definition and conceptual framework for maternal well-being (Le Lez et al., 2025).

In the framework, maternal well-being is defined as *"a positive state that is experienced throughout pregnancy and continuing until 1 year after the end of pregnancy, influenced by the world the woman lives in. During this dynamic and adaptive period, the woman's partner and family receive the support, confidence and resources to thrive and realise her full potential and rights."* (Le Lez et al., 2025).

The maternal well-being framework emphasises the multidomain nature of well-being and takes into account both subjective and objective well-being. Subjective well-being covers personal experiences such as the emotional state, while objective well-being encompasses external living conditions such as health, education, housing and social relationships. The framework includes six interconnected domains with subdomains that together explain the factors that shape well-being (Le Lez et al., 2025), see Figure 1.:

- The health and nutrition domain covers the conditions, background factors and measures that support the physical, mental, sexual and reproductive health of parents and children throughout their lives.
- The relationships and connectedness domain encompasses the emotional, social and interactional conditions that enable secure parent–child attachment, parental bonding, healthy couple and co-parenting relationships, and supportive social networks.
- The security, safety and sustainable environment domain includes the structural and relational conditions that ensure safety, protection from violence and adversity, socioeconomic security and a stable living environment for families.
- The maternal autonomy, agency and resilience domain covers the psychological, social and contextual factors that enable parents to feel competent, supported, empowered and capable of managing the transition to parenthood.
- The culture and values domain encompass the cultural, linguistic, social identity-related and value-based factors that shape parental experiences, access to care, help seeking and well-being, including the needs of migrants, minority and LGBTQ families.

- The provision and experience of care domain covers the quality, accessibility, continuity and responsiveness of perinatal health and social services, and how parents experience care interactions across the pathway. It includes system-level and interpersonal factors that influence trust, safety, engagement and equitable access, as well as care models.

The framework shifts the focus of maternal well-being from preventing mortality to achieving general health and well-being. This shift of focus can facilitate equity and sustainability (Le Lez et al., 2025).

The Nordic countries place a strong emphasis on gender equality and children's right to care from both parents (Duvander et al., 2025). Nordic experts suggest that the maternal well-being framework could be used to analyse the well-being of both parents during the perinatal period. In the report, all findings have been synthesised according to the framework, regardless of whether they concern the mother/birthing parent or the father/non-birthing parent. For the purposes of this report, the original framework illustration has been modified to cover the well-being of both parents and caregivers and called the parental well-being framework (see Fig. 1). The Nordic expert group justified the modification by stating that, from the perspective of child development, the factors presented in the six domains of the framework affecting the ability of the adult caring for the child to ensure the child's growth and development to their full potential are not limited to the mother alone.

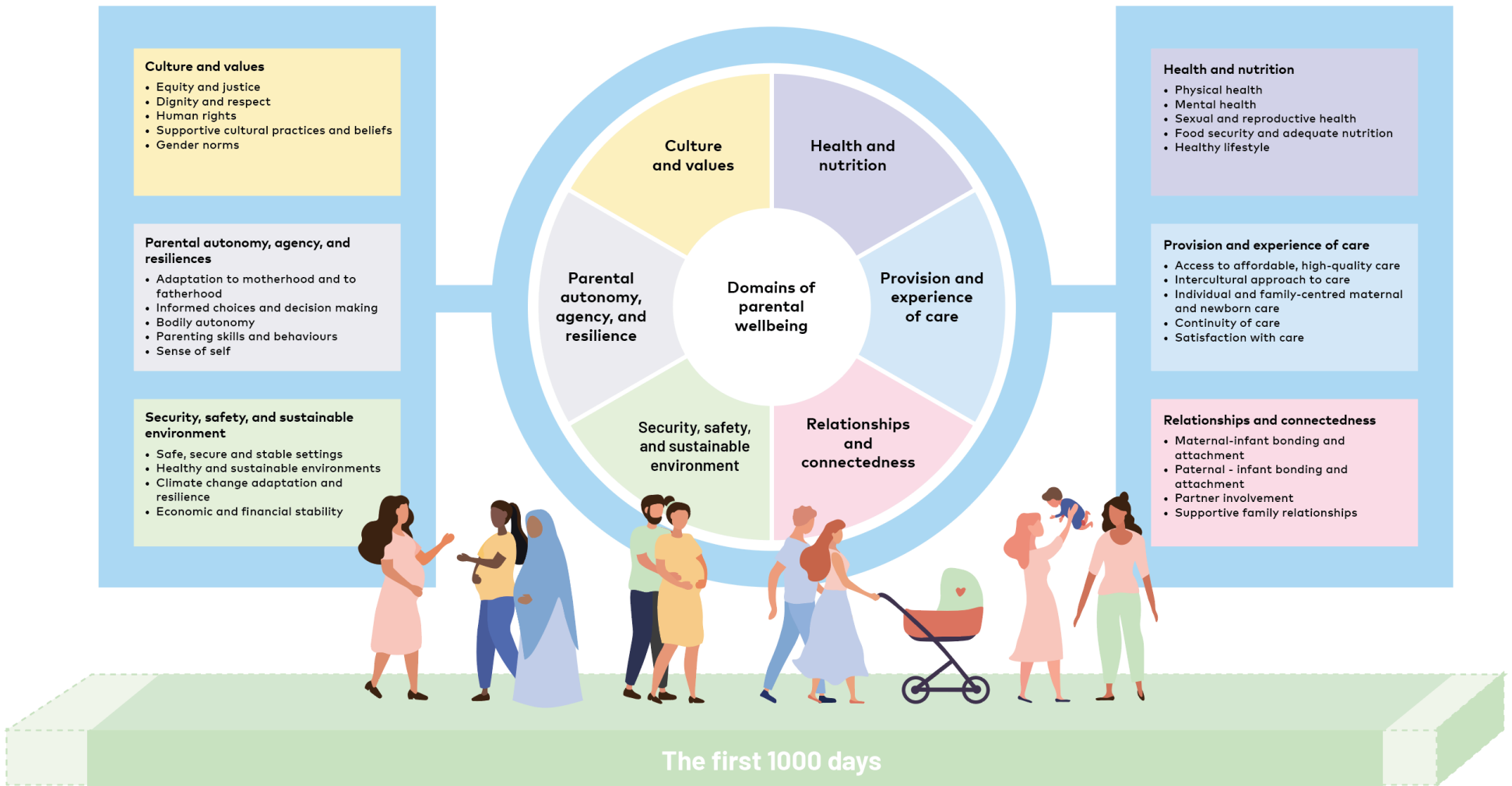


Figure 1. The parental well-being framework (adapted from Le Lez et al., 2025).

In this report, the framework was used to structure the results obtained from the literature review, the solutions that effective interventions provide and the current views of Nordic expert groups. The literature review aimed to identify which factors affect the psychosocial well-being of parents and children during the first 1000 days of a child's life. By cross-tabulating interventions assessed as impactful with risk mapping, gaps requiring solutions were identified. This was complemented with insights from national expert groups regarding the current national situation and prioritisation needs.

The maternal well-being framework builds on earlier frameworks, including the framework for child and adolescent health and well-being (WHO & UNICEF, 2023), which have been used to aid understanding of the framework and to classify factors affecting well-being. Synthesising the report's data (literature review, intervention mapping and expert discussions) according to the framework has been somewhat challenging due to the intertwined nature of the components of psychosocial well-being their systemic interconnections. Consequently, the categorisation is inevitably a somewhat high-level overview and not entirely flawless. Nevertheless, we consider the framework to provide a valuable umbrella perspective on phenomena essential for a comprehensive examination of psychosocial well-being during the perinatal period. It is helpful in identifying gaps and developing solutions tailored to Nordic contexts.

Findings



Image: Stina Gränfors / Johnér

Summary of the results of the literature search

The relevance and quality assessment in this literature review resulted in the inclusion of 167 full-text articles, systematic literature reviews and meta-analyses, identified from a literature search that in total captured of 4,274 individual studies. All the included articles focused on high-income countries. The PRISMA flowchart for the literature search results is presented in [Appendices 2](#).

The Nordic contribution was limited: In this report, of the 167 meta-analyses and systematic reviews that were reviewed, 58 (35%) included studies conducted in one or more of the Nordic countries.

The main findings are presented below under each component of the WHO maternal well-being framework. To some extent, the Nordic perspective has been strengthened by reviews of the Nordic expert group discussions and highlighted in separate information boxes.

Summary of the results of the intervention information portal search

In the first phase of the review, a total of 64 psychosocial interventions assessed as effective were identified, targeting the perinatal period or a period extending into it. Because the classification of effectiveness varied across information portals, another, more detailed review of effectiveness levels was conducted. Following this second review, 28 interventions were identified as effective or promising in *Nordic databases* (see [Appendices 3](#)) and were selected for the review in this report.

Most of the interventions rated as effective were targeted at mental health risks, with the majority of these aimed at mothers with pre- or postpartum depression. Eight universal intervention programmes were aimed at parents, designed to support parenting skills and promote early interaction. Seven intervention programmes were clearly

therapeutic in nature, addressing existing problems, while 13 were preventive intervention programmes targeted at risk groups (see Figure 2). Some of the intervention programmes were universal but also had adaptations to specific risk groups (for example, ICDP, The incredible years and NBO).

A total of 18 interventions for the perinatal period were found in *international (UK & US) databases* (see Appendix 5) that were not included in an earlier review of Nordic databases. Four of these international interventions were universal intervention programmes aimed at parents, 13 were preventive intervention programmes targeted at risk groups and only one intervention programme was therapeutic. None of these included Nordic evaluations or research, and all were probably implemented outside the Nordic context. Notably, US sources highlighted several intervention programmes for adolescent mothers and also named one culturally specific target group. These target groups were less visible in the interventions evaluated in Nordic countries. When selecting psychosocial interventions for this review, we considered the potential value of promising evidence as a starting point to address solutions for urgent needs. Even if an intervention's effectiveness has not yet been firmly established, exploring the links between identified risks and possible solutions, and ongoing research on these, may still be worthwhile. This also provides insights into which interventions should be further explored in the Nordic context. The main findings are presented below under each component of the WHO maternal well-being framework.

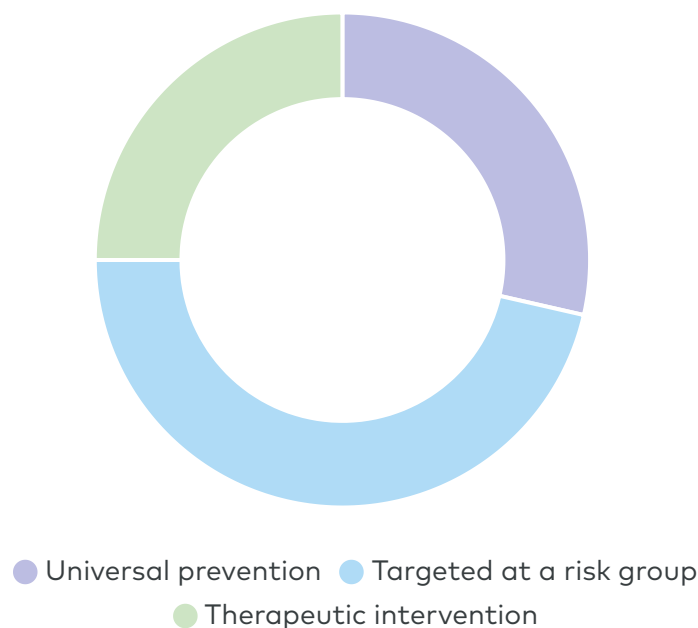


Figure 2. Identified effective psychosocial interventions in three different levels of support based on Nordic portals.

Findings organised based on parental well-being according to the WHO maternal well-being framework

This section presents a synthesis of the findings of the literature review, intervention information portal review and discussions with Nordic experts. These findings are focusing on psychosocial risk factors and psychosocial support.

The findings are structured in alignment with the WHO maternal well-being framework and organised according to its six domains. For each domain, the section first summarises key factors affecting the psychosocial well-being of parents, children and families identified in the literature, followed by a mapping of psychosocial interventions that have demonstrated effectiveness in addressing these factors. Each domain concludes with insights from Nordic expert discussions, highlighting identified and emerging needs, gaps in current support and perspectives relevant to organising and developing perinatal services in Nordic contexts.

Additional sources were used throughout the text to refine conceptual definitions and some additional information specifically from the Nordic countries is provided in information boxes. This includes statistical information or other information from recent Nordic studies or reports.

Health and nutrition



Image: iStock

This chapter explains the importance of supporting the physical and especially the mental well-being of parents within the domain of health and nutrition in the maternal well-being framework. It approaches the topic from a mental health perspective, as these challenges are strongly represented across the reviewed literature and linked to all other health-related factors. The following findings are based on a literature search that focused on psychosocial well-being. In literature addressing mental health disorders, emphasis was placed on the impact of these disorders on psychosocial well-being rather than on diagnostic definitions. This is reflected in both the findings presented and their interpretation.

The chapter highlights how the perinatal period influences the well-being of the mother, her partner and the child. It also describes how various risk factors, including negative childbirth experiences, are associated with poorer mental health outcomes. The purpose is to demonstrate why parental mental health is a central component of overall health and why focused support is needed.

The importance of good mental health during the perinatal period

The perinatal period is a psychologically vulnerable phase during which parents are exposed to various mental health challenges. Perinatal mental illness refers to psychiatric disorders that occur during pregnancy and up to one year after childbirth. According to Howard and Khalifeh (2020), perinatal mental disorders are among the most common complications of pregnancy, significantly affecting both maternal and child well-being. Perinatal mental disorders are linked to an increased risk of death due to suicide, substance misuse and the misinterpretation of serious physical symptoms as psychiatric issues in the woman.

Perinatal mental health problems cover a wide range of mental health challenges, from mild depression and anxiety to mental illnesses such as mania and psychosis. These mental health problems also include conditions that existed before pregnancy or that recur, as well as those that emerge during pregnancy or in the postpartum period.

Postpartum mental health problems may appear immediately after the birth of the child or later, with variable timing. Women with mental illness are also more likely to face life-threatening complications, because these disorders can co-occur with a variety of other health and social determinants, such as poverty, poor physical health and interpersonal violence. A history of mental health problems is associated with maternal psychosocial well-being and mental health during the perinatal period. Because many mental health factors are interrelated, broad assessment is essential when evaluating maternal mental health (Howard & Khalifeh, 2020).

Depression in the perinatal period

Temporary declines in maternal well-being, commonly referred to as the baby blues, are experienced by 40–80% of mothers shortly after childbirth. Symptoms include mood lability, sadness, tearfulness, anxiety, poor concentration and insomnia (Sharma et al., 2021; O'Hara & McCabe, 2013). Baby blues is not considered a mental disorder due to its transient nature. It does not usually require professional attention and should be distinguished from depression.

Depressive symptoms during the perinatal period may arise from hormonal changes, psychosocial stressors, a lack of support and a history of mental health issues. Common symptoms include persistent sadness, fatigue, sleep disturbances, guilt, anxiety, irritability and difficulty bonding with the infant (O'Dea et al., 2023). Note that severe changes in the sleeping and eating pattern are common for most women in the perinatal period. Thus, the other symptoms are more specific related to depression in this period. However, sleep deprivation may increase the symptom burden. Peripartum depression (PPD) refers to an episode of unipolar depression that begins during pregnancy or shortly after childbirth. Although the official DSM-5 definition limits the onset to pregnancy or the first four weeks after childbirth, research evidence indicates that depressive symptoms can begin up to a year after childbirth (RiseUP-PPD, 2023).

Prevalence of depressive symptoms (mild to moderate) and clinical depression

According to Howard and Khalifeh (2020), depression is the second most common non-psychotic mental disorder during the perinatal period after anxiety disorders. Findings may vary depending on the depression scale used and whether prevalence figures are based on diagnosed depressive disorders or self-reported symptoms that exceed screening cut-off scores. Screening tools typically identify a larger proportion of women with clinically significant depressive symptoms, whereas confirmed clinical diagnoses are markedly fewer.

In Europe (mild to moderate) antenatal depression affects approximately 18% of women (RiseUP-PPD, 2023), and (mild to moderate) postnatal depression around 17% in high-income countries (Howard & Khalifeh, 2020). In northern Europe, the prevalence of moderate-to-severe depressive diagnosis ranges from 3.5% during pregnancy to 3.3% postpartum (RiseUP-PPD, 2023). The prevalence is also dependent on cultural factors and the developmental level of the country (Grote et al., 2010; RiseUP-PPD, 2023). Helleyer et

al. (2025) suggest that the pooled prevalence of postpartum depression in the second year after childbirth is estimated at 15%, which is nearly equal to the first year. In most of the studies, postnatal depression was assessed using screening tools (29 studies out of 32) and rarely with clinical interviews (3 out of 32) (Helleyer et al., 2025).

Chhabra et al. (2020) referred to earlier studies in which the prevalence of paternal depression ranged from 8% to 10% in Western countries. Smythe et al. (2022) found substantially lower pooled prevalence rates in parental dyads: 1.72% for antenatal depression, 2.37% for early postnatal depression (0–12 weeks) and 3.18% for later postnatal depression. These rates should be interpreted with caution, as variations in assessment methods across studies can substantially influence reported prevalences.

Risk factors associated with depressive symptoms or depression during the perinatal period

Biological processes during pregnancy and after childbirth, together with psychological and social factors, form a whole entity in which a single risk factor rarely acts alone; rather, depression is seen as the result of an accumulation and interaction of factors. Table 4 summarises risk factors associated with perinatal depressive symptoms or depression identified across different well-being domains in the reviewed materials. Assessment of their relative importance, causal pathways or interaction mechanisms falls outside the scope of this report.

Antenatal depression is shaped by complex psychological and social factors, of which stress and a lack of social support are the most consistently prominent. High levels of stress can predispose women to depression, while strong coping skills and social relationships, as well as self-esteem, quality of life and spirituality, can protect against the risk (Evans & Bullock, 2012; Lancaster et al., 2010). Life stressors and significant life events are known risk factors for depressive symptoms during pregnancy and are associated with adverse outcomes such as preterm birth, low birth weight, an unplanned caesarean section and a longer hospital stay (Lancaster et al., 2010). An unwanted or unplanned pregnancy is also a clear risk factor for perinatal depressive symptoms (Evans & Bullock, 2012; Lancaster et al., 2010). According to Lancaster et al. (2010), correlations during pregnancy included life stress, a lack of social support, intimate partner violence, maternal anxiety, previous depression and a lower economic status. Smoking in mothers has also been associated as a risk factor for depressive symptoms during pregnancy (Evans & Bullock, 2012; Lancaster et al., 2010).

Social isolation, single parenthood, a low socioeconomic status, an immigrant or refugee background and poor relationship quality increase the risk of depression throughout the perinatal period (Bedaso et al., 2021; Heer et al., 2024; Pillas et al., 2024; Smythe et al., 2022). Lifelong maternal maltreatment is associated with both antenatal and postpartum depressive symptoms, especially when childhood trauma and current violence occur simultaneously (Alvarez-Segura et al., 2014). In addition, parenting pressures and negative emotions can be reflected in both periods (Holopainen & Hakulinen, 2019). The cumulative effect of multiple stressors is moderately associated with higher levels of depressive symptoms (Lancaster et al., 2010).

The challenges of early parenthood, such as the burden of caregiving, sleep deprivation and limited social support, can prolong postpartum symptoms beyond the first year (Hellyer et al., 2025). Other factors associated with postpartum depression include childcare-related stress, prenatal anxiety, and maternity blues, which can increase vulnerability in the early weeks after birth (Hutchens et al., 2020). Research indicates a bidirectional link between infant excessive crying and maternal mental health. Excessive crying in infants and maternal depression often co-occur and can reinforce each other, while depression is more commonly a subsequent condition rather than a cause of infant excessive crying. In contrast, maternal anxiety tends to precede and accompany infant excessive crying, suggesting that early anxiety may predict later crying problems and even postpartum depression (Petzoldt, 2018).

Postpartum risks may also include body image challenges (Lee et al., 2023), overweight or obesity (Molyneaux et al., 2014) and low resilience (Hajure et al., 2024). During the COVID-19 pandemic, significantly high levels of prenatal depression and anxiety were reported (Tomfohr-Madsen et al., 2021). Various psychosocial factors are associated with postnatal depressive symptoms in fathers. Significant risk factors include relationship dissatisfaction, financial instability, unemployment, a low educational level and perceived stress (Ansari et al., 2021).

Factors associated with more severe depressive symptoms and clinical depression

Biological factors are also associated with antenatal depression. These include factors such as changes in brain structure during pregnancy, sensitivity to progesterone-allopregnanolone fluctuations, low BDNF levels and changes in cortisol levels, as well as genetic predisposition. After childbirth, the risk is also increased by the sharp drop in hormone levels (RiseUP-PPD, 2023). Genetic vulnerability can interact with psychosocial stressors to intensify postpartum depressive symptoms (Hutchens et al., 2020).

Pregnancy-related illnesses and complications, such as gestational diabetes and anaemia, increase the risk (Abrar et al., 2020; RiseUP-PPD, 2023). Traumatic birth experiences and obstetric violence significantly increase the risk of postpartum depression (Benyamini et al., 2024; Silva-Fernandez et al., 2023), as do perinatal losses (Burden et al., 2016; Westby et al., 2021). Operative delivery is also associated with postpartum depression (RiseUP-PPD, 2023).

A history of depression or other mental health disorders is one of the known risk factors (Evans & Bullock, 2012; Lancaster et al., 2010). Risk factors for postpartum depression include previous depression, current or previous abuse, a lack of social support, unplanned or unwanted pregnancy, high levels of stress and relationship dissatisfaction (Hutchens et al., 2020). Antenatal depression strongly predicts postnatal depression (Smythe et al., 2022). Depression during pregnancy increases the risk of postpartum depression in both parents (Smythe et al., 2022), and paternal depression is positively associated with maternal depression both before and after childbirth (Chhabra et al., 2020).

Lower socioeconomic status, certain occupational stressors, and some personality-related factors and low self-esteem have also been identified as significant risk factors, and a

history of child sexual abuse, as well as disruptions in biological systems and pregnancy complications such as preeclampsia or HELLP, may further elevate the risk (Hutchens et al., 2020). Immigrant women are at particular risk when social isolation and a low social-economic status are combined with previous mental health challenges (Nilaweera et al., 2014).

In addition, the mother's previous traumatic experiences and adverse childhood experiences (ACEs) may contribute to the development of antenatal depression (Chamberlain et al., 2019; Hughes et al., 2021; Racine et al., 2021). Intimate partner violence during pregnancy has been repeatedly identified as a significant risk factor (RiseUpp, 2023; Alvarez-Segura et al., 2014; Howard et al., 2013).

Table 4. Summary of risk factors associated with perinatal depression or depressive symptoms aligned with six domains.

Health and nutrition	Relationships and connectedness	Security, safety and sustainable environment
<ul style="list-style-type: none"> • previous depression or other mental health disorders • antenatal depression or anxiety • PTSD • OCD, eating disorders • severe mental illness • sleep disturbances • exhaustion • chronic stress • substance use (tobacco, alcohol, drugs) • pregnancy and childbirth complications • traumatic childbirth experience • perinatal loss • baby's premature birth, low birth weight, NICU stay • fear of childbirth and loss of control related to childbirth • postpartum PTSD (as a separate risk factor for postnatal depression) • young motherhood (under 20 years of age) 	<ul style="list-style-type: none"> • relationship conflict • poor relationship quality • lack of partner support • single parenthood • social isolation loneliness • limited emotional or practical support • partner's mental health problems 	<ul style="list-style-type: none"> • Adverse childhood experiences (ACEs) • exposure to violence or abuse across the life course • intimate partner violence • poverty • financial insecurity • unemployment • housing instability • cumulative socioeconomic disadvantage

Autonomy, agency and resilience	Culture and values	Provision and experience of care
<ul style="list-style-type: none"> • limited coping skills • low self-esteem • high parenting stress • exhaustion • reduced sense of control, agency or competence during the transition to parenthood • unrealistic expectations of parenthood and social pressure to conform to norms 	<ul style="list-style-type: none"> • migrant or refugee background • pre-migration trauma • language and cultural barriers • discrimination and marginalisation • sexual and gender minority status • stigma and fear of judgement 	<ul style="list-style-type: none"> • negative or unsafe care experiences • poor or non-empathetic interaction with professionals • dismissive, blaming or judgmental attitudes in care • lack of parental involvement and shared decision-making • inadequate pain management during childbirth • traumatic birth experiences • experiences of coercion, lack of safety, or obstetric violence

Outcomes associated with depressive symptoms and depression

Depression incurs significant costs to society through the increased use of health and social services, diminished productivity, and the negative effects it has on children's development and health throughout their life (RiseUP-PPD, 2023). Associated outcomes for the child will be addressed in chapter [*Even mild parental mental health symptoms can affect a child's well-being and health.*](#)

Depression during the perinatal period has been associated with adverse obstetric outcomes such as preterm birth and low birth weight (Evans & Bullock, 2012; Grote et al., 2010; Howard & Khalifeh, 2020; Lancaster et al., 2010), impaired bonding and parenting quality (O'Dea et al., 2023), an increased risk of child developmental challenges (Grote et al., 2010; O'Dea et al., 2023), as well as compromised maternal well-being and adverse effects on the mother–infant relationship (Frankham et al., 2023; Furuta et al., 2018). Depressive symptoms are also linked to exhaustion and strained parent–child interaction (Kurth et al., 2011; Petzoldt, 2018), chronic grief and avoidance behaviours following perinatal loss (Burden et al., 2016; Westby et al., 2021) and feelings of guilt and diminished self-worth under parenting pressures (Billings et al., 2024; Holopainen & Hakulinen, 2019).

Postpartum depression impairs the mother's well-being and increases feelings of guilt, shame, irritability and loss of interest, which makes it difficult to cope with everyday life. It also increases the risk of harmful health behaviours and non-adherence to treatment (RiseUP-PPD, 2023). Failure to identify and treat women who have a high risk of depression may result in prolonged distress and health risks for both the mother and child. Healthcare providers are well positioned to assess and support mothers with depressive symptoms, as obstetric visits occur regularly over several months (Lancaster et al., 2010).

Maternal depression and depressive symptoms increase the burden on the spouse, which can lead to weakened relationship satisfaction and increase the risk of depression in the spouse (Chhabra et al., 2020). Depression is associated with a deterioration in coping and interaction skills, which can further strain the partner relationship. These family-level effects, including impaired bonding and parenting quality, exhaustion and strained parent–child interaction, and chronic grief and avoidance behaviours (Burden et al., 2016; Frankham et al., 2023; Furuta et al., 2018; Kurth et al., 2011; Petzoldt, 2018; Westby et al., 2021), increase the risk of conflicts and stress within the family system and can negatively affect children's emotional, cognitive and behavioural development (RiseUP-PPD, 2023).

Anxiety and stress are common during the perinatal period

Anxiety and stress are common during perinatal period. Anxiety is one of the most prevalent mental health concerns in the perinatal period, occurring more frequently than in the general adult population (Dennis et al., 2017) and with high comorbidity with depression (Howard & Khalifeh, 2020). Many women experience significant symptoms such as worry and avoidance that impair functioning, even without a full diagnosis. The strongest risk factor is a prior history of anxiety or depression, and symptoms often persist from before pregnancy. Severity and impact can fluctuate throughout pregnancy and postpartum. (O'Hara & Wisner, 2014).

According to Bina et al. (2024), perinatal mood and anxiety disorders (PMADs) affect up to 20% of pregnant and postpartum women. Anxiety disorders such as generalised anxiety, obsessive-compulsive disorder (OCD), panic disorder and social anxiety are frequently reported during pregnancy, although prevalence rates vary significantly across studies. Post-traumatic stress disorder (PTSD), specific phobias and social anxiety disorder each have a pooled prevalence of around 3% (Viswasam et al., 2019).

Across pregnancy, self-reported anxiety symptoms are common and tend to increase towards delivery. Dennis et al. (2017) found that anxiety symptoms affect approximately 18.2% of women in the first trimester, rising to 24.6% in the third trimester (22.9% overall). Postpartum, the prevalence remains high, at 17.8% in the first four weeks after birth and around 15% thereafter.

Prevalence estimates vary, with anxiety disorders reported at 15–20% during pregnancy and around 10% postnatally (Howard & Khalifeh, 2020). Clinically diagnosed anxiety disorders occur in approximately 18% of women in the first trimester, decreasing to around 15% later in pregnancy and to 9.3–9.9% during the first postpartum year. Generalised anxiety disorder (GAD) specifically affects roughly 4% of women during pregnancy and 4.2–5.7% postpartum (Dennis et al., 2017; Viswasam et al., 2019). The prevalence of paternal anxiety has varied substantially across studies. Philpott and colleagues (2019) reported rates ranging from 3–25% during the antenatal period and from 2–51% postpartum. In a review by Leach and colleagues (2016), prevalence estimates were somewhat narrower, ranging from 4–16% antenatally and from 2–18% postpartum.

Risk factors associated to anxiety and anxiety disorders

During the perinatal period, women experience different levels of anxiety and stress due to concerns about their own or their infants' health, as well as pressures related to fulfilling the expectations of pregnancy and motherhood. Unrealistic social norms and expectations contribute to women's perinatal anxiety and stress, especially when personal experiences do not align with societal ideals (McCarthy et al., 2021).

Stress, exhaustion and a lack of social support act as factors that both exacerbate symptoms related to anxiety disorders and predispose individuals to them (Bedaso et al., 2021; Kurth et al., 2011). Stress is amplified by relationship problems and mental health issues of the partner (Ansari et al., 2021; Chhabra et al., 2020), single parenthood, a low socioeconomic status, an immigrant/refugee status and a sexual or gender minority status (Ammerman et al., 2010; Heer et al., 2024; Kirubarajan et al., 2022). Fatigue, sleep deprivation, neuropsychiatric challenges (Elliot et al., 2024) and low resilience (Hajure et al., 2024) are additional stressors. Poor sleep quality in pregnant women is associated with perinatal mood disturbances (González-Mesa et al., 2019). Pregnancy-related anxiety (PrA) centres on concerns related to pregnancy, foetal health, childbirth and birth outcomes, but also on the mother's ability to cope with the challenges of motherhood (Evans & Bullock, 2012).

Concerns about maternal and infant health are also major stressors, with anxiety often linked to fear of complications and the unknown (McCarthy et al., 2021). Medically

complicated pregnancies may increase the risk of high-level anxiety symptoms among pregnant women (Abrar et al., 2020). Unexpected findings during prenatal ultrasound examinations can also evoke intense negative emotions in parents, such as feelings or a state of shock (Johnson et al., 2020). Anxiety is commonly associated with fear of childbirth (Molgora et al., 2019), traumatic birth experiences (Benyamini et al., 2024) and obstetric violence (Silva-Fernandez et al., 2023). Poor healthcare experiences, including perceived low-quality care and limited access to services, further intensify these symptoms (McCarthy et al., 2021). A history of serious illnesses may also cause stress and, for example, mothers with cancer have reported concerns and fears about how their own health might affect their infant's health (Leung et al., 2020).

Previous mental health disorders are frequently associated with concurrent conditions, particularly depression, anxiety and eating disorders, which often co-occur (Wiswasam et al., 2019). Other related risk factors include eating disorders (Ecob et al., 2025), negative body image (Lee et al., 2023) and perinatal loss (Burden et al., 2016). In the literature reviewed for this report, post-traumatic disorder (PTSD) was associated with perinatal loss and negative childbirth experiences, which are addressed later in this chapter.

Paternal anxiety during the perinatal period has been reported to increase stress, depression and tiredness and to lower paternal self-confidence (Philpott et al., 2019). Parenting stress associates significantly with paternal anxiety in the perinatal period. Several factors appear to be particularly relevant to fathers' experiences during this time, including gender-role-related stress, domestic violence and mismatched expectations regarding pregnancy and childbirth (Chhabra et al., 2020).

Table 5 summarises risk factors associated with perinatal anxiety symptoms or anxiety disorders identified across different well-being domains in the reviewed materials. Assessment of their relative importance, causal pathways or interaction mechanisms falls outside the scope of this report.

Table 5. Summary of associated risk factors for perinatal anxiety symptoms and anxiety disorders aligned with six domains.

Health and nutrition	Relationships and connectedness	Security, safety and a sustainable environment
<ul style="list-style-type: none"> • previous anxiety disorders or other mental health conditions • antenatal or postnatal anxiety and comorbid depression • pregnancy-specific anxiety • post-traumatic stress disorder, including birth-related PTSD • obsessive-compulsive disorder • eating disorders and body-image concerns • sleep disturbances, fatigue and chronic exhaustion • high stress levels and prolonged psychological strain • pregnancy or childbirth complications • medically complex pregnancies • traumatic or perceived negative childbirth experiences • fear of childbirth and loss of control during labour • perinatal loss • neuropsychiatric conditions • substance use, including tobacco and alcohol 	<ul style="list-style-type: none"> • poor relationship quality or relationship conflict • lack of partner support • partner’s mental health problems • single parenthood • social isolation and loneliness • limited emotional or practical support • disrupted co-parenting relationships • reduced early bonding due to parental anxiety or trauma 	<ul style="list-style-type: none"> • Adverse childhood experiences (ACEs) • exposure to violence or abuse across the life course • intimate partner violence • socioeconomic insecurity • financial stress, poverty or unemployment • housing instability or unsafe living conditions • cumulative social disadvantage • exposure to crises or disasters

Autonomy, agency and resilience	Culture and values	Provision and experience of care
<ul style="list-style-type: none"> • low resilience and limited coping capacity • reduced sense of control or agency during pregnancy and early parenthood • high parenting-related stress and performance pressure • unrealistic expectations of motherhood or parenthood • low self-esteem and self-efficacy • difficulties adapting to the transition to parenthood • fear of inadequacy or failure as a parent 	<ul style="list-style-type: none"> • immigrant, refugee or asylum-seeking background • pre-migration trauma and cumulative stressors • language and communication barriers • cultural mismatch with care practices • experiences of discrimination, marginalisation or racism • sexual and gender minority status • minority stress and fear of stigma or judgement • limited culturally sensitive or inclusive services 	<ul style="list-style-type: none"> • negative, unsafe or invalidating care experiences • poor communication or lack of empathy from professionals • fragmented care pathways and lack of continuity • lack of shared decision-making or parental involvement • inadequate pain management during childbirth • experiences of coercion or obstetric violence • barriers to accessing care • fear of stigma, labelling

Outcomes associated with anxiety and anxiety disorders

Pregnancy-related anxiety and high stress levels are associated with an increased risk of antenatal depressive symptoms and anxiety disorder (Evans & Bullock, 2012; Lancaster et al., 2010). Such anxiety and stress also elevate the likelihood of adverse pregnancy and birth outcomes, including preterm birth, low birth weight, an unplanned caesarean section and a longer hospital stay (Lancaster et al., 2010). Anxiety may begin early in pregnancy, particularly among those with a history of adversity, and is associated with poorer child socioemotional and cognitive outcomes (Racine et al., 2021).

Stress and worry during the perinatal period may also result in sleep disturbances, fatigue and parental exhaustion (Kurth et al., 2011; Petzoldt, 2018). Moreover, maternal psychological strain during pregnancy and childbirth increases vulnerability to postpartum mental health problems and can hinder early bonding and interaction with the infant, with perinatal stress and anxiety shown to be associated with attachment difficulties and reduced parent–infant interaction (O’Dea et al., 2023; Staneva et al., 2015). Parental perinatal anxiety has further been linked to poorer socioemotional and cognitive development in children (Kingston et al., 2012; Racine et al., 2021).

Obsessive–compulsive disorder during the perinatal period

Obsessive–compulsive disorder (OCD) involves persistent, intrusive thoughts that cause significant distress, leading the person to perform repetitive behaviours or mental acts to reduce anxiety. These compulsions are rigid, time-consuming and interfere with daily functioning, even though the individual typically recognises the thoughts as unrealistic (APA, 2024).

The prevalence in women panic disorder (PD) and OCD occur during the pregnancy with rates of 3% for each. The onset of OCD during pregnancy is not uncommon: 13–39% of all OCD cases begin during this period. These findings suggest that pregnancy may be a specific risk factor for the occurrence or exacerbation of PD and OCD (Viswasam et al., 2019). There is some evidence of an increased rate of disorders requiring outpatient contact and/or psychotropic treatment in the postnatal period, particularly for depression and (OCD) (Howard & Khalifeh, 2020).

Only one study has particularly addressed OCD during the perinatal period. Burton et al. (2022) reviewed how women with OCD experience maternity care and mental health care during pregnancy and postpartum. Such women may face delays in appropriate treatment if their symptoms are misdiagnosed as relating to other mental health illnesses, most commonly post-partum depression or generalised anxiety, or if there is a lack of knowledge and recognition among professionals. Health professionals may mistakenly perceive mothers with perinatal OCD as a danger to their infants, especially when they lack knowledge about their condition and fail to distinguish intrusive thoughts from actual intent to harm. Mothers themselves may fear they pose a risk to their babies, and this fear can be reinforced by OCD symptoms and external actions such as referrals to social services. The true risk lies not in the obsessions but in the consequences of untreated OCD, such as avoidance behaviours that disrupt caregiving and bonding (Burton et al., 2022).

Eating disorders during the perinatal period

Eating disorders (EDs) refer to psychiatric disorders characterised by abnormal eating or weight-control behaviours. Perinatal eating disorders are relatively rare, but there is a history of an eating disorder in up to 15% of pregnant women (Howard & Khalifeh, 2020). Disordered eating during pregnancy is strongly associated with depression and anxiety symptoms during pregnancy (Ecob et al., 2025; Baskin & Galligan, 2019). Maternal EDs are also linked to postpartum anxiety (Ecob et al., 2025). Baskin and Galligan (2019) reported a positive association between eating disorders and compulsive symptoms, as well as conflicting findings regarding ambivalent feelings about pregnancy, relationship support and social support. Their review did not allow an assessment of the direction of causality, and the results suggest that mental health and psychosocial factors and eating disorder symptoms may be bidirectional or cyclical, with negative emotional distress increasing eating disorder symptoms, which in turn impairs mental health and social functioning.

Eating disorders during the perinatal period can pose significant risks to both the mother and infant. They also raise the risk of pregnancy and delivery complications, such as hyperemesis gravidarum, prolonged labour, caesarean section and conditions such as anaemia, hypertension and diabetes. For the infant, EDs are associated with restricted foetal growth, preterm birth, abnormal head size and an increased risk of perinatal mortality (Ecob et al., 2025). Early identification, timely support and access to specialised care, alongside attention to the mother–infant relationship, are essential for effective prevention, assessment and treatment of perinatal mental health and eating disorders (Ecob et al., 2025).

Maternal serious mental illness requires urgent attention

Parents with serious mental illness (SMI), such as severe depression, acute psychosis, schizophrenia or bipolar disorder, face complex challenges in parenting. These difficulties, combined with social, emotional and economic burdens, increase the risk of adverse outcomes such as disrupted attachment, social exclusion and child emotional problems (Harries et al., 2023). Thus, psychotic disorders and bipolar disorders are serious mental health conditions that can complicate pregnancy and parenting.

Postpartum psychosis (PPP) is a rare mental disorder, affecting between 1 and 2 per 1000 women, and usually occurs within 1–14 days after childbirth and can last from weeks to months. Risk factors include bipolar disorder or previous postpartum psychosis, hormonal changes, postpartum depression, genetic predisposition, and a possible link to early adverse childhood experiences (Friedman et al., 2023). Severe mental illness in the perinatal period may occur as a continuation of chronic psychotic illness or a new onset, often shortly after childbirth. Postpartum psychosis can emerge suddenly as a severe psychiatric episode (Jones et al., 2014). Approximately 40% of those affected have no previous history of serious psychiatric illness (Friedman et al., 2023). Studies suggest a significant genetic influence on the manifestation of these serious mental disorders, with candidate genes linked to serotonin, hormonal and inflammatory pathways. Although childbirth is a powerful trigger for psychotic episodes, stressful life events do not appear to be a significant risk factor for the onset of postpartum psychosis (Jones et al., 2014).

Postpartum psychosis within the first year after delivery is more likely in mothers with prior psychopathology and especially with bipolar disorder (Ramsauer & Achtergarde, 2018). The postpartum period is a highly vulnerable phase: the risk of relapse for women with bipolar I disorder is estimated at 39%, and the risk especially increases when preventive medication has been discontinued. Approximately 38% of these relapses are manic or mixed episodes, which can be difficult to recognise because they are often accompanied by psychotic symptoms. A new onset of bipolar disorder during pregnancy is relatively rare (Jones et al., 2014; Sharma et al., 2024).

Early identification and individualised prevention strategies are essential. Potential triggers of mania, such as sleep disruption, antidepressant use and substance use, should be addressed proactively (Sharma et al., 2024). Multidisciplinary care and preconception planning play a crucial role in reducing risks and supporting the safety of both the mother and child. Medication management during pregnancy and postpartum is important and requires specialised knowledge (Jones et al., 2014).

Associated outcomes of serious mental health illnesses

Mother

Postpartum psychosis can have substantial consequences for the mother. It is associated with an elevated risk of self-harm, accidents and significant functional impairment, and the rapid onset of symptoms means that even brief delays in receiving care can increase adverse outcomes (Friedman, 2023). Confusion, memory disturbances and psychotic symptoms may impair a mother's ability to care for herself or her infant. SMI are a risk factor for suicide, which is among the most common causes of maternal mortality in high-income countries, including the Nordic countries, and on very rare occasions can lead to infanticide (Milia & Noonan, 2022; Jones et al., 2014). Although most mothers recover well with appropriate treatment, approximately one-third experience recurrent symptoms outside the peripartum period. Long-term effects may include fear, shame, sadness related to missed early bonding moments and a need to process traumatic memories. Severe mental disorders can also impair women's ability to form and maintain relationships and increase the risk of unintended pregnancies.

• FACTS & INSIGHTS •



Suicide is one of the leading causes of maternal death in the western countries

In Swedish nationwide register-based study women with clinically diagnosed perinatal depression were associated with an increased risk of death, particularly during the first year after diagnosis and because of suicide. Women who are affected, their families, and health professionals should be aware of these severe health hazards after perinatal depression. (*Hagstahla et al., 2024*). The study including data from Denmark, Norway and Finland found that despite the maternal mortality rates are relatively low, major contributors to maternal deaths in all countries were cardiovascular diseases and suicide (for maternal mortality up to one year) (*Digusto et al., 2022*).

Partner and family

Partners and family members often experience postpartum psychosis as highly distressing. Reported experiences include profound feelings of helplessness and fear, difficulty accessing accurate information or having their concerns acknowledged, and the burden of managing multiple responsibilities that include caring for the infant, maintaining daily routines and supporting a partner in acute crisis (Friedman, 2023). Emotional strain, fear of child removal and stigma are frequently present, and these experiences tend to be especially intense in families with young children (Harries et al., 2023). Some couples report strain or relationship dissolution, although others describe positive developments such as increased empathy, deeper understanding and shared growth in navigating mental health challenges. The effects of a parent's serious mental health disorder on a child are discussed in the chapter [*Serious parental mental illness and infant health risks.*](#)

Efforts to support families are often hampered by inadequate policies, fragmented services, crisis-oriented models and concerns about child protection involvement. Evidence indicates the need to move from risk-focused and professionally driven frameworks toward compassionate, strengths-based and collaborative approaches that incorporate the family's broader social environment. Achieving this requires action at multiple levels, including the implementation of family-focused practices and socially connected approaches that emphasise community support (Harries et al., 2023).

A bidirectional link between parents' mental health

Parental mental health and relationship dynamics are closely interlinked in the perinatal period, with evidence indicating a bidirectional relationship between parental psychological well-being and the quality of the couple relationship. Marital conflict and a lack of cooperative co-parenting have been demonstrated to increase paternal depression and anxiety (Chabra et al., 2020; Philpott et al., 2019), while depressed fathers report disappointment regarding changes in the partner relationship after childbirth and insufficient support from their partner (Holopainen & Hakulinen, 2019).

Conversely, parental mental health problems can negatively influence the couple relationship: for example, childbirth-related PTSD has been associated with poorer parental relationships and challenges in parenting (Delicate et al., 2018). Maternal perinatal mental health disorders may heighten the vulnerability of partners to psychological distress (Darwin et al., 2021), and maternal or partner depression is a significant risk factor for paternal perinatal depression or anxiety (Chhabra et al., 2020; Philpott et al., 2019). Paternal symptoms similarly tend to increase when mothers experience perinatal mental health difficulties (Darwin et al., 2021). Relationship quality is also linked to maternal well-being, with poor relationship satisfaction identified as a risk factor for depressive symptoms during pregnancy (Lancaster et al., 2010).

Various psychosocial factors are associated with postnatal depressive symptoms in fathers. A lack of support and low parenting self-efficacy are also associated with paternal postpartum depressive symptoms (Ansari et al., 2021). Significant risk factors include dissatisfaction in the relationship, financial instability, unemployment, a low educational level and perceived stress (Ansari et al., 2021). Addressing social determinants of health and relationship dynamics is essential to identify and support at-risk parental dyads (Smythe et al., 2022). Ansari and colleagues (2021) found that prior mental illness poses a high risk for the development of depressive symptoms in fathers, and paternal mental illness is linked to maternal depression.

Severe maternal mental illness, such as postpartum psychosis, can substantially affect the partner's psychosocial well-being. Fathers report a sense of loss in different aspects of their lives, such as the relationship with their partner and the future they have planned. They also report fear and shock, attributed to their lack of knowledge and awareness of postpartum psychosis (Lyons et al., 2024). Partners frequently experience a lack of knowledge about recognising postnatal mental distress and accessing help, which may compromise their own health, their relationship with the mother and the infant, and their

willingness to disclose distress (Atkinson et al., 2021). Together, these findings demonstrate a reciprocal interplay between parental mental health and relational functioning, underscoring the importance of addressing the well-being of both parents within the broader family system.

Neuropsychiatric challenges

Parental neurodivergence also influences the type of support needed and the accessibility of information in perinatal services. There is a significant research gap regarding the perinatal healthcare needs of neurodivergent individuals (e.g., ADHD and autism spectrum disorders), and current perinatal care practices do not sufficiently address the unique challenges faced by neurodivergent people (Elliot et al., 2024).

Elliot et al. (2024) reviewed the literature on the perinatal experiences of neurodivergent parents, particularly those on the autism spectrum and with ADHD, and concluded that neurodivergent parents are at risk of psychosocial challenges during the perinatal period. The transition to the perinatal period and parenthood brings changes in routines and hormone levels, which can be challenging for neurodivergent parents. Neurodivergence has also been reported as a strength, for example in terms of unique sensory sensitivity, adaptability and motivation (Elliot et al., 2024). Intense sensory experiences, experiences with parenting difficulties and mental health problems have also been identified as perinatal challenges among autistic women (Hernández González et al., 2024).

Promotive and protective factors for parental mental health

The literature review identified factors that can support parental mental health and prevent depression, anxiety and stress symptoms. Positive experiences of parenthood, self-esteem and autonomy are essential for the well-being of all mothers, fathers and children (Arnold et al., 2025; Bell & Andersson, 2016; Finlayson et al., 2020; Palioura et al., 2023; Silva-Fernandez et al., 2023). Prenatal education and high-quality support for families promote the transition to parenthood, reduce anxiety and strengthen family well-being (Suto et al., 2017; Walker et al., 2019). Social support from the partner, family, friends, peers and professionals has a key role in protecting against depression and anxiety, promoting recovery and preventing long-term mental health problems (Almeida et al., 2024; Alvarez-Segura et al., 2014; Evans & Bullock, 2012; Lancaster et al., 2010; Westby et al., 2021).

Adequate and sensitive support during childbirth can prevent negative experiences and PTSD, while open communication and partner involvement increase trust and emotional stability (Ayers et al., 2016; Bell et al., 2016; Shorey & Chan, 2020). High-quality care relationships and targeted support programmes, such as home visits for young mothers, support adaptation to motherhood and prevent postpartum depression (Atzl et al., 2019; Chamberlain et al., 2019; Hymas & Girard, 2019). Prenatal education could offer a valuable opportunity to support the transition to parenthood and well-being of the whole family. According to Suto et al. (2017), fathers who participated in prenatal education reported

lower parenting stress three months postpartum and reduced postnatal anxiety shortly after birth compared to fathers who did not participate. They were also more likely to be present in the delivery room and expressed higher satisfaction with the childbirth experience. Additional evidence suggests these programmes may help reduce postpartum anxiety and improve relationship quality between partners (Suto et al., 2017).

In addition, financial assistance, secure housing and equal access to high quality services create a foundation for psychological well-being. Long-term support programmes and stress management strengthen resilience and protect maternal health, especially in situations of social and economic vulnerability (Dela Cruz et al., 2023; DiTosto et al., 2021; Harville et al., 2011; Heer et al., 2024; Siddika et al., 2023).

A healthy postpartum lifestyle is important for the promotion of optimal maternal health (Makama et al., 2021). McKeough, Blanchard and Piccini-Vallis (2022) explored the perceptions of pregnant and postpartum women regarding the barriers to and facilitators of physical activity during pregnancy and identified its health benefits for both mental and physical well-being. However, although physical activity during pregnancy is known to offer health benefits, pregnant women have reported pregnancy symptoms, a lack of knowledge of what constitutes safe activity and the opinions of women's social circles as barriers to physical activity (McKeough et al., 2022).

Table 6 summarises factors promoting parental perinatal mental health across different well-being domains in the reviewed materials. Assessment of their relative importance, causal pathways or interaction mechanisms falls outside the scope of this report.

Table 6. Protective and promoting factors for parental mental health aligned with six different domains.

Health and nutrition	Relationships and connectedness	Security, safety and sustainable environment
<ul style="list-style-type: none"> • good physical health • adequate sleep and rest • physical activity • healthy and regular nutrition • avoidance of excessive substance use 	<ul style="list-style-type: none"> • supportive partner relationship • emotional and practical support from partner and family • peer support from other parents • strong social networks • positive early parent–infant interaction • secure attachment • supportive caregiving 	<ul style="list-style-type: none"> • freedom from violence and abuse • safe and stable housing • financial security and social protection • predictable living conditions • supportive community structures • early support for families with adversity
Autonomy, agency and resilience	Culture and values	Provision and experience of care
<ul style="list-style-type: none"> • sense of control and agency during pregnancy and childbirth • feeling heard and respected in decision making • parental self-efficacy and confidence • adaptive coping skills • psychological resilience 	<ul style="list-style-type: none"> • support for the transition to parenthood • culturally sensitive and respectful care • recognition of diverse family forms • support for cultural identity and practices • language and interpretation support • inclusive care for sexual and gender minorities • freedom from stigma and discrimination 	<ul style="list-style-type: none"> • early identification and treatment of mental health symptoms • access to evidence based psychological support • positive and supported birth experiences • support for infant feeding choices without pressure • accessible and timely services • continuity of care • trusting and empathetic relationships with professionals • shared decision making • trauma-informed care • clear information about available support

Even mild parental mental health symptoms can affect a child's well-being and health

The literature review identified studies that examined the link between maternal mental health and negative outcomes in pregnancy and the health of the infant. Parental mental health issues and psychological issues are significant not only for the parent's own well-being but also for the child's psychological development and the early parent–infant relationship.

Child developmental and psychological outcomes

Maternal perinatal mental health challenges are linked to risks for the child's mental and physical health and development (Howard & Khalifeh, 2020; Mudiyansele et al., 2024). Perinatal mental disorders, especially depression and anxiety, are linked to increased risks of psychological, emotional, and developmental disturbances in children. They can impact child development from foetal life through adolescence. It is well established that women with both common mental disorders and severe mental illness have an increased risk for adverse obstetric and pregnancy outcomes, including preterm births and foetal growth impairments (Howard & Khalifeh, 2020).

Prenatal and postpartum psychological stress in the mother has been found to have some impact on the infant's cognitive, behavioural and psychomotor development (Kingston et al., 2012). The mother's prenatal and postpartum psychological stress has been found to have a small impact on the infant's cognitive, behavioural and psychomotor development (Kingston et al., 2012). Maternal psychological stress is associated with postpartum mother–infant bonding problems (O'Dea et al., 2023). After childbirth, exhaustion caused by, for example, the infant's crying has been shown to decrease the parent's ability to concentrate, trigger depressive symptoms, and burden the interaction between parent and child (Kurth et al., 2011).

Gentile (2015) found that untreated maternal depression during pregnancy may lead to foetal stress responses, neurochemical changes in newborns, and later behavioural issues. Evidence suggests that *in utero* exposure to depression is linked to biological changes in the developing foetus, affecting the serotonergic system and the hypothalamic–pituitary–adrenal axis, hypothesised to be related to maternal–placental–foetal stress mechanisms, including maternal immune activation (Howard & Khalifeh, 2020). Depression during pregnancy has been found to increase the risk of preterm birth and low birth weight (Grote et al., 2010), and research has demonstrated a significant association between preterm birth and depression and anxiety symptoms and disorders, as well as perceived stress during pregnancy (Staneva et al. 2015). Maternal eating disorders are associated with restricted foetal growth, preterm birth, abnormal head size and an increased risk of perinatal mortality (Ecob et al., 2025).

Perinatal mental health disorders, especially depression and anxiety, are associated with increased risks of psychological, emotional and developmental difficulties in children (Grote et al., 2010; O'Dea et al., 2023). Stein et al. (2014) report effects on cognitive, emotional and behavioural development, with severity depending on the duration and

intensity of the parent's condition. Direct and indirect effects of prenatal depression, anxiety and stress pose risks to later maternal and infant psychological well-being, such as impaired attachment, postpartum adjustment and physiological consequences for the child (Staneva et al., 2015). Children exposed to maternal depression during pregnancy and the first year of life have been found to be more likely to experience early developmental and emotional, behavioural and learning difficulties (RiseUP-PPD, 2023).

Maternal depression during the perinatal period is linked to poorer neurodevelopmental outcomes (Duan et al., 2019; Howard & Khalifeh, 2020), including an increased risk of ADHD and attention-related difficulties (Tucker & Hobson, 2022). Postpartum and birth-related post-traumatic stress disorder (PTSD) can significantly impact maternal well-being, the mother–infant relationship and child development (Frankham et al., 2023; Furuta et al., 2018).

Maternal mental health problems correlate consistently with reduced child well-being in early childhood and lead to increased use of health services, causing financial and personal burdens for both families and society. Mothers experiencing depression tend to seek more medical care for their children, possibly due to stress or anxiety (Mudiyanselage et al., 2024).

Paternal mental health and child outcomes

Untreated paternal perinatal depression is associated with developmental and psychological problems in children, including conduct disorders and social difficulties (Gentile & Fusco, 2017). Paternal anxiety has been associated with impaired parenting skills (Philpott et al., 2019). Paternal postpartum depression and parenting-related stress may lead to children's sleep problems and bedtime difficulties (Ragni et al., 2020). A supportive parent–child relationship can buffer negative effects if only one parent is depressed; however, when both parents' experience depression, the child faces substantially higher risks of poor mental and physical health (Smythe et al., 2022).

Serious parental mental illness and infant health risks

For infants, risks are often associated with genetic vulnerability, parental functioning and the broader family environment rather than infant characteristics. The evidence points to the impact of parenting quality on mental health outcomes in both generations.

Maternal psychosis may involve inconsistent caregiving, neglect or acute safety concerns (Friedman, 2023). Severe mental illnesses are recognised risk factors for child well-being and early parent–child interaction (Harries et al., 2023; Ramsauer & Achtergarde, 2018; Vilaseca et al., 2025). Parents with severe mental illness frequently report overwhelming distress, suicidal ideation and feelings of inadequacy in caregiving. Impairment in social cognition may reduce the ability of mothers to interpret and respond to infant cues (Vilaseca et al., 2025).

Mothers with psychotic disorders, such as schizophrenia, show significantly reduced sensitivity, warmth and responsiveness in interactions with their infants, leading to less mutual engagement and more avoidant behaviour in the child. These mothers also

struggle with emotional recognition, which can result in unusual or frightening communication patterns (Vilaseca et al., 2025). Mothers with schizophrenia tend to face more challenges in parenting and are at higher risk of being separated from their child after treatment compared to mothers with acute postpartum psychosis or other disorders. Despite similar actual risks to the infant across diagnostic groups, mothers with schizophrenia are often judged more harshly, possibly due to stigma associated with chronicity, unpredictability and perceived violence (Ramsauer & Achtergarde, 2018).

Research indicates that maternal psychosis may reduce maternal responsiveness, leading infants to display more negative or fearful behaviours. Findings vary across acute and chronic presentations, and some mothers with psychosis report stronger emotional bonding than mothers with postpartum depression (Ramsauer & Achtergarde, 2018). The evidence points to the impact of parenting quality on mental health outcomes in both generations. Despite these challenges, most mother–infant interactions improve with treatment, and most families are discharged together from mother and baby units (Friedman, 2023).

Children in child welfare systems

Severe mental health disorders and/or substance use in parents increase the risk of out-of-home placement for their children. Children aged 0–5 years in child welfare systems often have trauma backgrounds and are at elevated risk of mental health issues and developmental delays. Mental health needs, developmental needs and placement are strong predictors of service use (Keyser & Ahn, 2017). These children require particular attention given their heightened vulnerability.

Substance use and smoking during the perinatal period

In the Nordic countries, the risks associated with parental substance use are well recognised in national maternal and child health programmes, as substance use during pregnancy is considered a significant threat to foetal growth, infant neurodevelopment and early child health. However, despite this, the literature review identified only a few studies specifically examining the combined impact of dual-parent substance use on infant outcomes.

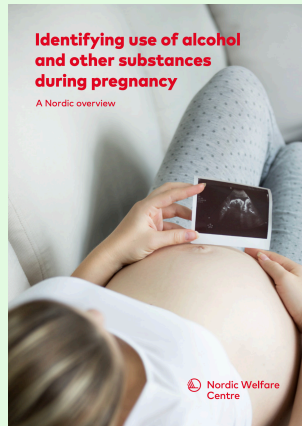
Smoking during pregnancy is a well-established risk factor for adverse maternal and infant health outcomes, including long-term complications (Kumar et al., 2021). Despite smoking often being linked to physically weaker outcomes, studies have also identified some psychosocial connections. Maternal smoking has been identified as a risk factor for depressive symptoms during pregnancy (Evans & Bullock, 2012; Lancaster et al., 2010). In addition, perinatal depression is associated with smoking and substance abuse during the perinatal period (RiseUpp, 2023; Baron et al., 2017). McHale et al. (2022) reported that maternal physical health (including BMI) and smoking may mediate the effect of socio-economic status on preterm birth. Living in a deprived environment increases the risk of adverse health behaviours, such as smoking, low physical activity, substance use and poor diet, and also contributes to elevated chronic stress (Siddika et al., 2023).

A range of factors are associated with an elevated risk of subsequent substance use. Stillbirth and the delivery of a deceased infant have been linked to an increased psychosocial burden, with evidence indicating a higher likelihood of substance-related difficulties, particularly among fathers (Burden et al., 2016; Peters et al., 2015). Post-loss mental health symptoms, such as avoidance behaviours, anxiety, chronic pain and reductions in quality of life, may further increase vulnerability to substance use as a coping strategy (Burden et al., 2016; Peters et al., 2015). Perinatal mental disorders are likewise associated with heightened susceptibility to harmful substance use, a relationship that may be reinforced by co-occurring adversities including poverty, poor physical health and interpersonal violence (Howard & Khalifeh, 2020). In addition, adverse childhood experiences and particularly exposure to intimate partner violence, as well as harmful alcohol use, illegal drug use and anxiety within the household, are associated with an increased likelihood of later substance use (Hughes et al., 2021).

Substance use during the perinatal period is associated with a series of adverse outcomes. Perinatal mental disorders are linked to increased mortality attributable to suicide and substance misuse, and substance use may contribute to diagnostic overshadowing, leading to the misattribution of serious physical symptoms to psychiatric causes (Howard & Khalifeh, 2020). Substance use is also identified as a potential precipitant of manic symptoms, necessitating careful management among individuals at risk of perinatal mania (Sharma et al., 2024). Furthermore, co-occurring parental substance use and psychiatric personality disorders are associated with reduced treatment responsiveness in mother–infant units (Adhikary et al., 2024). Hammer and Rapp (2022) explored reasons for alcohol use during pregnancy among women (excluding people with alcohol dependence and problematic users), which included inadequate or inconsistent information about the risks of alcohol, varying personal attitudes toward alcohol use, and sociocultural norms and attitudes influencing alcohol consumption.

Perinatal substance use poses significant risks to child development and may diminish the effectiveness of early interventions. Perinatal substance use (alcohol, opioids, cocaine, cannabis, amphetamines) is associated with child maltreatment and child protection involvement, although influenced by socioeconomic and demographic factors (Austin et al., 2022). Alcohol exposure increases the risk of attentional and behavioural disorders (Khoury et al., 2018, and foetal cannabis exposure is associated with later neurocognitive and psychiatric disorders (Roncero et al., 2020). Reasons for alcohol use include inconsistent risk information and sociocultural norms (Hammer & Rapp, 2022).

• FACTS & INSIGHTS •



The consequences of prenatal alcohol exposure and the prevalence of FASD in the Nordic countries

Foetal Alcohol Spectrum Disorders (FASD) refers to a range of permanent and individually varying effects caused by prenatal alcohol exposure, encompassing FAS, ARBD, and ARND (Frederiksen & Nissinen, 2022; Nissinen et al., 2021). FASD can manifest, for example, as growth abnormalities or functional disorders of the central nervous system, but most commonly it presents as invisible neurocognitive difficulties that challenge learning, memory, and behavioural regulation. The symptom profile varies depending on the amount, frequency, and timing of exposure, and the risk is also increased by other stressors during pregnancy and early life (Frederiksen & Nissinen, 2022; Nissinen et al., 2021). Diagnosis is complicated by the lack of uniform international guidelines, and the Nordic countries use differing criteria, which undermines the comparability of prevalence estimates. According to estimates, the prevalence of FASD varies significantly: 360 per 10,000 in Denmark, 124 per 10,000 in Finland, 70 per 10,000 in Iceland, 178 per 10,000 in Norway, and 74 per 10,000 in Sweden, but these estimates are uncertain and likely underestimated (Frederiksen & Nissinen, 2022; based on Lange et al., 2017). See more: [Identifying use of alcohol and other substances during pregnancy](#)

Perinatal trauma, loss and the effects of birth experiences on parental well-being

Perinatal trauma covers psychological and emotional stress factors experienced during pregnancy, childbirth and early infancy that can affect parental well-being, the formation of attachment and the functioning of the entire family. Perinatal trauma can be caused, among other factors, by perinatal loss, fear of childbirth, medically or emotionally difficult birth experiences, experiences related to the quality of care and a history of previous trauma or mental health issues. Perinatal loss and negative or traumatic experiences have long-term effects on parental well-being.

Effects of perinatal loss

The review identified that various loss-related experiences, such as miscarriages and stillbirths, can have a profound impact on parental well-being. For example, multiple or repeated miscarriages have been shown to increase the risk of depression and anxiety among women (Inversetti et al., 2023). Stillbirth and the experience of delivering a deceased child are major risk factors for parental mental health and psychosocial well-being. Following stillbirth, parents may experience avoidance of memories, anxiety about other children, chronic pain and changes in healthcare use. Fathers have been less studied, but findings suggest that they also experience a significant risk of distress that is prone to manifesting as avoidance behaviour (Westby et al., 2021). Fathers often suppress grief and face work- or substance-related challenges, while mothers are more likely to struggle with body image and reduced quality of life (Burden et al., 2016; Peters et al., 2015).

Experiencing stillbirth can have long-term effects on parental well-being in later pregnancies and parenthood (Burden et al., 2016). Stillbirth is associated with a higher risk of depression, anxiety and symptoms of post-traumatic stress disorder (PTSD). In a review by Westby et al. (2021), mothers were particularly vulnerable, with some studies reporting over 60% meeting the diagnostic criteria for PTSD. Risk factors for depression, anxiety and PTSD in mothers included being unmarried, a lack of social support and negative self-perceptions. Social stigma and isolation compound these challenges, and delayed delivery after diagnosis is linked to anxiety (Westby et al., 2021).

The fear of loss or loss-related concerns may also negatively affect parental well-being. Alsallum and colleagues (2025) found that mothers of newborns admitted to intensive care units were at greater risk of developing PTSD, especially if they had prior experiences of miscarriage or birth complications. A medically complex pregnancy further increases anxiety symptoms (Abrar et al., 2020).

Protective factors after loss

Perceived social support from family and friends can reduce the risk of depression and anxiety. Positive coping resources and supportive relationships help buffer against loneliness and emotional strain. A committed partnership strongly predicts lower depressive symptoms. Healthcare professionals should offer empathetic bereavement care and support that promote recovery, including respecting families' wishes regarding

contact with the stillborn child and memory-making, which may reduce depression and anxiety (Westby et al., 2021).

Fear of childbirth

The literature search yielded only one article directly addressing the impact of fear of childbirth on psychosocial well-being, but the topic appeared in other articles. Fear of childbirth is a common experience among expectant mothers, but in severe cases it can become a clinical condition affecting daily functioning and coping during childbirth.

Research on fear of childbirth and emergency caesarean section (CS) has yielded mixed results, with severe fear more consistently linked to emergency CS. Among first-time mothers, the association was stronger (Molgora et al., 2020). Fear of childbirth has a relatively strong association with post-partum post-traumatic disorders (PTSD) (Ayers et al. 2016), and strong fear has been linked to diminished resilience (Hajure et al., 2024).

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Nordic estimates of fear of childbirth and birth-related trauma

The prevalence of childbirth fear is quite similar in the Nordic countries, although the figures are not directly comparable. In Finland, 2.5% to 8% of first-time mother have reported fear of childbirth (Silvan et al., 2025), while the prevalence of intense childbirth fear for all women in Sweden was determined to be 15.8% (Nieminen et al., 2009), 12% of women in Norway reported fear of childbirth (Henriksen et al., 2020) and around 7% of Danish women reported fear in some stage of pregnancy (Laursen et al., 2008). In a recent study by Haga et al. (2026), the prevalence of childbirth-related post-traumatic stress disorder (CB-PTSD) in a Norwegian sample was 8.7%, which exceeds the 4.7% reported in the meta-analysis of Heyne et al. (2022). Additionally, 22% of participants experienced childbirth as traumatic according to DSM 5 criteria.

Psychosocial risk factors for adverse pregnancy and birth outcomes

Maternal adverse childhood experiences (ACEs) increase the risk of pregnancy complications and are associated with adverse obstetric outcomes, including preterm labour and prematurity and low infant birth weight. A higher cumulative exposure to ACEs, together with lifelong socioeconomic disadvantage and current adverse social conditions, is linked to poorer maternal and birth outcomes (Mamun et al., 2023).

A lower socioeconomic status is associated with a higher likelihood of preterm birth. Factors frequently observed in connection with both socioeconomic disadvantage and adverse birth outcomes include poorer maternal physical health, such as higher or lower body mass index, smoking during pregnancy, maternal mental health problems and alcohol use (McHale et al., 2022). In addition, characteristics of the physical and social environment, including neighbourhood deprivation, exposure to violence or crime and limited access to health services, are associated with an increased risk of preterm birth and other adverse outcomes (Siddika et al., 2023). A physically demanding job is also associated with an increased risk of preterm labour (Adane et al., 2023).

Maternal mental health symptoms and clinically diagnosed disorders during pregnancy, including symptoms of depression, anxiety and post-traumatic stress, are associated with adverse obstetric and perinatal outcomes. These conditions are more common among women with prior trauma exposure and social adversity and are linked to higher rates of preterm birth, low birth weight and pregnancy complications (McHale et al., 2022; Pastor-Moreno et al., 2020). Depressive symptoms or disorder, as well as perceived stress and anxiety during pregnancy have been found to increase the risk of preterm birth and low birth weight (Grote et al., 2010; Staneva et al., 2015).

Even moderate symptoms can impact birth outcomes, but complexity and other influencing factors such as chronic medical conditions, domestic violence and socioeconomic status should also be considered (Staneva et al. 2015). Intimate partner violence during pregnancy is associated with multiple adverse perinatal health outcomes. A systematic review by Pastor-Moreno and colleagues (2020) reported associations with preterm birth, low birth weight, miscarriage, perinatal death and premature rupture of membranes. Intimate partner violence frequently co-occurs with psychosocial stress, mental health problems, substance use and barriers to accessing care, which are also associated with poorer maternal and birth outcomes.

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Nordic perinatal statistics

Approximately 265 000 live births occurred in the Nordic countries in 2022. The number of live births has decreased in all Nordic countries, and first-time mothers are becoming older and the BMI of women giving birth has risen which are associated with several risks. Interventions related to childbirth, such as caesarean sections, have also become more common in the Nordic countries over the past four decades. In 2022, the proportion of births delivered by caesarean section was highest in Denmark (20.1%), followed by Finland (19.6%) and Sweden (19.1%). The proportion of preterm deliveries (before the 37th week of gestation) of all deliveries was 4.8–6.3% in the Nordic countries in 2022 and has remained relatively stable in recent decades. Newborn mortality rates are among the lowest in the world, at 1 in 1000 (Heino & Gissler, 2024).

Risk factors for adverse birth outcomes for the child

It is well established that women experiencing common or severe mental disorders are at higher risk of adverse obstetric outcomes, including preterm birth and foetal growth impairments (Howard & Khalifeh, 2020). Several studies have highlighted the link between parental health and well-being, particularly that of the mother, and premature birth. Preterm birth is associated with negative health, social and educational outcomes for children (McHale et al., 2022).

Even moderate mental health symptoms can affect birth outcomes, although multiple contributing factors must be considered, such as chronic medical conditions, domestic violence and socioeconomic adversity (Staneva et al., 2015). Poor maternal general health, including physical, mental and social domains, and chronic or autoimmune conditions are associated with poorer long-term outcomes for children (Mudiyanselage et al., 2024).

Depression during pregnancy has been found to increase the risk of preterm birth and low birth weight (Grote et al., 2010). Research has demonstrated a significant association between preterm birth and depression, anxiety and perceived stress during pregnancy (Staneva et al., 2015), and pregnancy-specific stress, which combines anxiety and elevated stress, is a strongly predictive factor (Evans & Bullock, 2012). Maternal eating disorders have been associated with restricted foetal growth, preterm birth, abnormal head size and increased perinatal mortality (Ecob et al., 2025).

Untreated maternal depression during pregnancy may lead to foetal stress responses, neurochemical alterations in newborns and later behavioural problems (Gentile, 2017). *In utero* exposure to maternal depression is linked to changes in the serotonergic system and the hypothalamic–pituitary–adrenal axis, probably mediated through maternal–placental–foetal stress mechanisms, including immune activation (Howard & Khalifeh, 2020). Maternal antenatal anxiety has been linked to increased preterm birth rates, lower Apgar scores, shorter birth length and poorer developmental trajectories (Dennis et al., 2017).

Risk factors for negative or traumatic experiences

Individuals with prior mental health issues may be more prone to intense stress responses, which can worsen childbirth-related trauma. Conditions such as anxiety, depression or trauma are known risk factors for postpartum PTSD (Orovou et al., 2025). A difficult birth experience may also increase the risk of relapse among individuals with a history of mental health disorders, such as bipolar disorder (Sharma et al., 2024). Mothers who give birth to twins or triplets are more likely to experience postpartum depression and stress compared to those giving birth to a single child (Van den Akker et al., 2016).

The mode of delivery has also been found to play a role as a risk factor for PTSD (Silva-Fernandez et al., 2023). The prevalence of maternal PTSD following emergency caesarean sections ranged from 2% to 41% in a review by Orovou and colleagues (2025). High PTSD rates following emergency caesarean sections are influenced by the clinical urgency of the procedure, its unexpected nature and pre-existing maternal vulnerabilities (Orovou et al., 2025). Other risk factors for PTSD include childhood trauma (Racine et al., 2021), intimate partner violence (Howard et al., 2013), disaster exposure (Harville et al., 2010), perinatal loss (Burden et al., 2016), fear of childbirth (Molgora et al., 2019) and traumatic or negative birth experiences, including obstetric violence (Frankham et al., 2023; Silva-Fernandez et al., 2023).

Impacts of negative birth experience

Traumatic births significantly impact emotional and psychological health, resulting in shame, low mood avoidance of memories and reminders and persistent intrusive memories. These factors can contribute to the development of trauma-related symptoms, post-traumatic stress disorder (PTSD) and postpartum depression (Bell et al., 2016), as well as anxiety and stress (McCarthy et al., 2021). Mothers may struggle to bond with their babies, while relationships with partners, family and friends can deteriorate. (Shorey et al., 2022). Postpartum and birth-related PTSD can severely impair maternal well-being and early bonding (Furuta et al., 2018).

Childbirth experiences have also been examined from the father's perspective. A negative birth experience can be a risk factor for psychological trauma in fathers after childbirth. Stress, anxiety and fear during labour are associated with paternal PTSD symptoms and other forms of mental health challenges, and they can lead to difficulties in relationships with the partner and infant. These may be further aggravated by the lower ability of fathers to seek help for mental health issues (McNab et al., 2022). To cope, fathers often rely on avoidance and emotional suppression, although some couples have strengthened their bond through shared traumatic experiences (Shorey et al., 2022). Fathers have reported that poor communication with healthcare professionals, a lack of preparation and exclusion during childbirth are associated with their negative childbirth experiences (McNab et al., 2022). Parents have used various coping strategies after negative experiences, including acknowledging and discussing their trauma, seeking information about birth events and turning to religious faith. Many mothers use positive emotions and childcare activities as way to prevent their trauma symptoms from impacting their infants. Both parents have reported valuing social and professional support, while informal networks such as peer groups and online forums provide a sense of community (Shorey et al., 2022).

Negative birth experiences and the quality of care

In addition to the negative birth experiences described earlier, the quality of interaction in care and services in general is significant for maternal well-being. Negative birth experiences may result from a contradiction between childbirth expectations and actual experiences, a lack of control during labour, negative interactions with healthcare professionals and inadequate pain management (Benyamini et al., 2024). Common themes associated with traumatic experiences across studies include feelings of disappointment, unmet expectations and emotional distress following childbirth (Bell & Andersson, 2016). Shorey & Wong (2022) pointed out that parents have expressed various factors that led to their traumatic birth experiences. Parents commonly reported dismissive attitudes of healthcare providers, feelings of powerlessness and fear for the safety of the mother and infant. Their constant battles to overcome traumatic experiences have also affected their relationships. To deal with the trauma, some mothers displayed avoidance behaviours while others relied on social support.

Poor communication, limited information-sharing, insufficient decision-making involvement of midwives and a lack of support and trust in midwives have been identified as risk factors for developing postpartum PTSD (Patterson et al., 2019). Parents with traumatic birth experiences described a lack of agency, coercion, routine- or outcome-centred care, unexpected interventions and experiences of obstetric violence as factors leading to traumatic experiences. Physical pain led to trauma and difficulties, and unexpected medical interventions or experiences of obstetric violation could have serious postpartum implications for women during childbirth. Healthcare professionals should provide empathetic communication, involve fathers actively during childbirth and offer counselling to both parents. Postpartum interventions should include education about normal and emergency birth scenarios, emotional support and access to peer groups. Recognising avoidance behaviours early and addressing them through professional care can prevent long-term psychological harm (Shorey & Chan, 2020).

Healthcare professionals are in a critical role in shaping birth outcomes and need to recognise and systematically assess pregnancy-specific psychological trauma (PSPT) across all perinatal individuals to improve care and outcomes (Shorey & Wong, 2022). Adequate and sensitive support during birth can prevent negative experiences and PTSD. It could be easily implemented in different care settings and can be even more important for women with a history of trauma or instrumental birth (Ayers et al., 2016). This emphasises the need for trauma-informed care practices during labour and delivery (Givrad et al., 2025).

A lack of decision-making opportunities during childbirth increases the risk of later mental health issues (Arnold et al., 2025). Some studies have pointed out the concept of 'obstetric violence' as a significant risk factor for parental mental health disorders, including an increased risk of postpartum depression and PTSD (Silva-Fernandez et al., 2023). Obstetric violence is understood as a violation of women's rights during childbirth, including disrespect, inhumane treatment and verbal, psychological or physical abuse. Reports from high-income countries include a lack of pain relief, ignoring requests for help, yelling and scolding (Fraser et al., 2025).

The importance of adequate support

A positive birth experience is associated with the mother's possibility to participate in decision-making during birth (Arnold et al., 2025), and with support, guidance and positive interaction from healthcare professionals (Benyamini et al., 2024). A sense of being respected and valued has produced positive perceptions among mothers (Miyachi et al., 2022). A positive birth experience is identified as a protective factor against postpartum depression (Bell & Andersson, 2016; Silva-Fernandez et al., 2023). A positive experience can also protect against birth-related PTSD and can be supported by safe communication with healthcare professionals and showing respect for the birth plan (Silva-Fernandez et al., 2023).

The importance of good preparation for childbirth is emphasised in contributing to a better experience of childbirth for mothers and their partners (Benyamini et al., 2014). Continuity of care through a familiar midwife alongside the mother's perinatal care is associated with reduced depression and anxiety symptoms during the perinatal period (Cibralic et al., 2023). An early connection with midwives and the availability of postnatal home midwifery services were found to be positive factors in the successful transition to motherhood (Walker et al., 2019). A harmonic relationship and negotiating with mothers outside strict protocols also positively influence the relationship with professionals (Curtin et al., 2023). For fathers, inclusion and good communication with midwives support more positive birth experiences. Feeling included contributes to more positive parenthood, improved partner relationships and better family well-being (McNab et al., 2022; Palioura et al., 2023).

Breastfeeding protects and challenges a mother's mental health

Breastfeeding and nutrition were excluded from the literature search, but breastfeeding emerged as theme related to the psychosocial well-being of the parents. Breastfeeding appears to have both supportive and challenging effects on maternal well-being. The relationship between perinatal depression and breastfeeding appears to be bidirectional. Depressive symptoms are associated with poorer breastfeeding outcomes, and breastfeeding challenges are sometimes reported as contributing to postnatal depressive symptoms (Billings et al., 2024). Available evidence suggests that parental perinatal depressive symptoms are negatively associated with breastfeeding exclusivity and duration. These associations may influence infant nutrition and have implications for both maternal and infant mental and physical health (Butler et al., 2021). Although anxiety is more common than depression in the perinatal period, less is known about its association with breastfeeding.

Mothers with mental health challenges have reported pressure to succeed in breastfeeding and feelings of inadequacy and guilt when breastfeeding does not meet expectations. Positive breastfeeding experiences can be associated with reduced feelings of guilt, strengthened self-esteem, enhanced mother–infant bonding and decreased stress due to emotional closeness. Some mothers have also described breastfeeding as offering a sense of healing after a traumatic birth (Billings et al., 2024).

Other disorders may also affect breastfeeding. For mothers with eating disorders, stopping breastfeeding may allow ways to resume control over their body and eating. Women with obsessive–compulsive disorder may experience contamination fears related to breastfeeding (Billings et al., 2024). The physical changes associated with pregnancy and the lack of control during childbirth may trigger memories for women with a history of childhood sexual abuse (Chamberlain et al., 2019; LoGiudice, 2016). Concerns about medication safety and breastfeeding have led some women to rule out breastfeeding as a viable option. For women with severe mental illness, the complexity of their mental health needs can make breastfeeding feel irrelevant, and it was often de-prioritised in favour of addressing more acute care needs. Professionals can support mothers by offering consistent and individual guidance, acknowledging mental health complexities, reducing societal pressure and fostering a nonjudgmental environment that encourages help-seeking (Billings et al., 2024).

Findings from the psychosocial intervention review for the health and nutrition domain

In the Nordic countries, several psychosocial intervention programmes have been implemented, targeting mothers or parents who either exhibit mental health symptoms or are at risk of developing them. An important objective of these interventions, in addition to supporting parental mental health, is to safeguard the physical and psychological well-being of the newborn or expected child, thus providing a strong foundation for lifelong health and development.

Based on the psychosocial intervention information portal mapping*, none of the interventions that met the inclusion criteria were targeted at *physical health and/or nutrition* of the parents. However, a secondary objective of several interventions was to safeguard the overall health of the unborn child. Several interventions aimed to promote or support the mother's *mental health*. In practice, *nearly all psychosocial support during the perinatal period* seeks to enhance the mental health and well-being of both parents and the unborn child, extending beyond the specific objectives of each intervention (e.g., by tackling risk factors connected to mental health). A total of 22 psychosocial interventions targeted mental health or related risk factors (see Tables 7 and 8). Most of the mapped psychosocial interventions evaluated as effective specifically targeted the support of mothers with depression or anxiety or stress related (also exhaustion and tiredness) disorders. Only single psychosocial interventions targeted bipolar disorders, PTSD, parental trauma, fear of childbirth or parental substance abuse. Some psychosocial interventions were targeted more at the child's point of view, concerning low birth weight or preterm birth and the child's traumatic or abusive experiences or high risk of these.

No psychosocial interventions targeted mothers with negative childbirth experiences or parents with perinatal loss. Also, none of the interventions were targeted at parents of children with developmental disorders. Developmental difficulties in newborns are usually treated in specialized healthcare, which may explain the absence of psychosocial interventions. Moreover, parents with physical disabilities or neurodiversity were not target groups in any psychosocial intervention programmes, and neither were parents with eating disorders, OCD, schizophrenia or other psychotic disorders. Again, the treatment of these is usually concentrated in specialized healthcare.

Only one of the interventions in the domain of health and nutrition was universal in nature, while 13 were targeted at risk groups and 8 were therapeutic interventions. Mothers were mostly mentioned as the target group, but other care givers/fathers may be included, depending on the intervention and possible adaptations.

Table 7a. Identified effective psychosocial interventions in Health and nutrition domain: interventions targeted to mental health-related factors.

Intervention	MENTAL HEALTH*						
	Mental health problems during the perinatal period	Depression	Stress, exhaustion, and tiredness	Anxiety disorders	Eating disorders	OCD	Parental trauma (not specified)
NORDIC EFFECTIVENESS GRADING							
CBT		X					
IPT (interpersonal therapy) + IPT G (group)		X					
Mamma-Mia		X					
Marte Meo			X				
Mellow Bumbs (MB)		X	X				
Nurture and Play		X		X			
Parent–Baby Intervention		X					
Parent–Child Interaction Therapy (PCIT)			X				
Transdiagnostic Cognitive Behavioral Group Treatment (TCBGT) for Pregnant Women		X		X			
EFFECIVENESS GRADING ONLY IN THE UK/USA							
IPP Infant-parent psychotherapy		X		X			X
Mom Power®		X					
Parent–Child Assistance Program (PCAP)							
Promoting First Relationships (PFR)							X

Universal prevention / Targeted at risk groups / Therapeutic interventions

Table 7b. Identified effective psychosocial interventions in Health and nutrition domain: interventions targeted to mental health-related factors.

Intervention	MENTAL HEALTH*						
	PTSD	Neuro-psychiatric challenges	Bipolar disorder	Schizophrenia	Postpartum psychosis	Other psychotic disorders	Parental substance use
NORDIC EFFECTIVENESS GRADING							
No interventions with Nordic effectiveness grading were identified.							
EFFECIVENESS GRADING ONLY IN THE UK/USA							
IPP Infant-parent psychotherapy							
Mom Power®	X						
Parent-Child Assistance Program (PCAP)							X
Promoting First Relationships (PFR)							
Universal prevention / Targeted at risk groups / Therapeutic interventions							

Table 8. Identified effective psychosocial interventions in Health and nutrition domain: targeted to other health related needs.

Intervention	Health and Nutrition*							
	Experiences of perinatal loss	Negative or traumatic childbirth experiences	Fear of childbirth	Child developmental problems	Child's traumatic or abusive experiences or the risk of them	Low weight / preterm babies	Disabilities and physical limitations	Overweight

NORDIC EFFECTIVENESS GRADING

Attachment and Behavioral Catch-Up (ABC)					X			
Child-Parent psychotherapy (CPP)					X			
Modified Mother–Infant Transaction Program (MITP)						X		
Newborn Individualized Developmental Care and Assessment Program (NIDCAP)						X		
Nyttigrupp								
Safe Environment for Every Kid (SEEK)			X		X			

EFFECTIVENESS GRADING ONLY IN THE UK/USA

Child First					X			
Family Nurse Partnership								X
IPP Infant-parent psychotherapy					X			

Universal prevention / Targeted at risk groups / Therapeutic interventions

* Reminder: The selected portals only include interventions that have been evaluated within the assessment systems according to specific criteria, with an emphasis on research-based evidence of effectiveness. The interventions that demonstrate at least some research-based evidence of effectiveness are presented. The assessment systems operate dynamically, and the information presented in this report may therefore be updated quite rapidly. Regular monitoring of the relevant portals of these assessment systems is recommended. The checkmarks reflect what was indicated as the primary target group or objective in the portal descriptions of each intervention. Many interventions have multiple secondary goals and effects, so additional checkmarks could apply in practice.

Based on the findings from the literature review, positive effects of certain other approaches also emerged concerning parental mental and physical health. For example, yoga-based interventions may reduce stress levels, anxiety and depression scores, as well as the pain response during pregnancy (Kwon et al., 2020). Some systematic reviews also mentioned yoga-based methods as increasing overall postnatal well-being (Munns et al., 2024; Sheffield et al., 2016). Mindfulness-based methods have some effects in stress reduction in the post-natal phase (Hall et al., 2016), and relaxation and massage interventions have also been found to result in positive sleep outcomes among women in the perinatal phase (Mueller et al., 2021; Tan et al., 2021; Tsai et al., 2020). Based on these findings, some methods emphasizing relaxation and stress management may be worth considering as universal preventive approaches.

Miller et al. (2021) described interventions that are not programmes included in the intervention portal. These interventions, targeting post-traumatic stress disorder following childbirth, include psychotherapeutic therapy, grief counselling, expressive writing, midwifery counselling and debriefing. Traditionally, midwifery-led psychological debriefing is offered to women in the days and weeks following the birth of their baby. It has been described as an opportunity for the mother to describe her experience, express her emotions and feelings in relation to the negative event and "fill in the gaps".

The review results from Jones et al. (2023) suggest that parenting interventions for parents experiencing CPTSD symptoms or who have experienced childhood maltreatment (or both) may slightly improve parent-child relationships but have a small, unimportant effect on parenting skills. There is currently a lack of high-quality evidence regarding the effectiveness of interventions in improving parenting capacity or parental psychological, or socio-emotional well-being in these parents.

The co-occurrence of psychological distress and bonding problems is common, and there is an identified need for universal screening tools to assess the impact of these factors (O'Dea et al., 2023). Perinatal mental health disorders are linked to many increased risks, such as psychological, emotional and developmental disturbances in children throughout life.

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Registry research increases knowledge and improves care

In the Nordic countries national registers cover both healthcare and also, for example, socioeconomic and partner status. These high-quality, nationwide and population-based data sources and the possibility to link individual data between each of them render the Nordic countries. Based on these datasets, Nordic cohort studies are uniquely positioned to fill current evidence gaps in the field of perinatal mental health (Karalexi et al., 2022).

Ongoing pregnancy or birth cohort studies:

- [The Danish National Birth Cohort \(DNBC\)](#)
- The Norwegian [MoBa](#) and ABC Studies and www.fhi.no/ps/studier/autismestudien/om-autismestudien/
- [The FinnBrain Birth Cohort Study](#)
- [Northern Finland Birth Cohort 1966 and 1986](#)
- [The Icelandic SAGA cohort](#)
- The Swedish BASIC and [Mom2B studies](#)

Key observations from Nordic expert discussions concerning the health and nutrition domain

Experts across the Nordic countries emphasised a similar desired direction: improving early identification and intervention through maternity and child health clinics; strengthening staff training throughout maternity services; enhancing multiprofessional collaboration and home-based family support; addressing the implementation gap, despite existing effective interventions; and ensuring equal access to care, despite regional disparities.

Emerging evidence on neurobiological, hormonal and temperamental vulnerabilities was highlighted: Some individuals have a neurobiological or hormonal profile that makes them particularly vulnerable to mental disorders. Concerns were also raised about the possible increase in parental physical health problems. Additional child risk factors requiring attention include negative family interactions, violence or neglect, out-of-home care, parental marginalisation or criminality, developmental difficulties, prematurity, sensory impairments, a lack of vaccination and chronic illness or disability. Child temperament was also discussed as both a risk and a protective factor that should be identified early.

Screening data indicate rising maternal anxiety and stress, often linked to pregnancy or infant care. Broader attention is needed to parental mental health problems such as perinatal depression, fear of childbirth, substance use and cognitive difficulties. Experts noted links between maternal PTSD and an increased ADHD risk in children, underscoring the importance of early trauma identification. Major risk factors include current or prior psychiatric illness, active symptoms during pregnancy or postpartum and any signs of suicidality.

Further research is needed on complex trauma, early care pathways, mothers with obsessive-compulsive traits or high self-demands, neurodivergent parents and burnout among highly educated mothers. Many women experiencing elevated stress or anxiety do not meet psychiatric thresholds and risk falling outside current systems, highlighting the need for expanded psychological support in primary care.

Partner mental health assessment was identified as essential due its impact on the partner's well-being during the perinatal period, on infant health and development and the relationship with the parent, and its bidirectional impact on maternal outcomes and family functioning. Evidence-based interventions such as internet-delivered CBT and structured peer support remain underutilised. Improved treatment pathways for severe perinatal mental health issues and the establishment of mother-baby units are needed. A stepped-care model with clearly defined pathways between psychosocial support and medical care was strongly recommended.

Relationships and connectedness



Image: Anna Roström / Johnér

This chapter addresses the domain of Relationships and connectedness-domain of the WHO maternal well-being framework, which emphasises supportive family and community networks, workplace policies and maternal–infant bonding during pregnancy, childbirth and early parenthood (Le Lez et al., 2025). The literature review examined factors influencing psychosocial well-being during the perinatal period. Although secure attachment and sensitive interaction are essential for child development, research findings were often parent focused. This chapter also examines the role of social support systems and effective interventions to promote relationship and peer support. The review does not cover workplace policy related matters.

Factors relating to early parent–child interaction and attachment

Attachment refers to Bowlby's (1982) description of a long-term emotional bond in which an infant seeks security, comfort, and protection from its caregiver. Bonding refers to the early feelings and emotions that a parent experiences toward their infant at the time of birth and thereafter. It facilitates parenting skills and promotes the survival and development of infant as well as later attachment and child's sense of self (Bicking Kinsey et al., 2013). Early interaction describes the early interaction between the infant and the caregiver, including eye contact, facial expressions, touch, and rhythmic reciprocity, through which attachment and a positive early bond is formed (Grochowska et al., 2025). Together, these concepts describe how early emotional and interactive relationships are formed, but they emphasise different processes: the child's attachment, the parent's emotional bond, and early interaction.

Factors relating to early parent–infant relationship

Early parent–child interaction and attachment

Parents play a central role in shaping the infant's developmental environment (Pontoppidan et al., 2016). Parental attachment is a set of internal behaviours fostering a close emotional bond between the parent and infant. This emotional relationship begins during pregnancy and is associated with psychosocial outcomes for both the parent and child. It is a foundational element of social and emotional development (Salehi et al., 2019).

Parenting quality, social support and the duration of parental disorders influence outcomes (Stein et al., 2014). Shorey et al. (2023) examined the significance of the biomarker oxytocin in the parent–child relationship and bonding. Their review highlights that oxytocin levels are positively associated with parental touch, gaze and affect synchrony, and that the oxytocin systems of the parent and child are interrelated. Even though findings were partly inconsistent, evidence provides a basis for families and healthcare providers to encourage more positive touch and interactive play between parents and children.

A positive postnatal experience is characterised by a mother's ability to adapt to her new identity, develop confidence and competence in her maternal role, adjust to changes in intimate and family relationships and navigate the physical and emotional challenges of early motherhood. Achieving this sense of 'positive motherhood,' which includes maternal self-esteem, autonomy and well-being, is essential for both the mother and the child (Finlayson et al., 2020). The ability of parents to demonstrate warmth, sensitivity and responsiveness to their infant's needs in the parent–infant relationship is integral to the development of the child's future self-esteem, resilience and ability to form close relationships (Shorey et al., 2023).

Risk factors affecting early interaction and bonding

Difficulties in parent–child bonding or early interaction are often linked to various risk factors, including parental fatigue, depression and other mental health challenges (Adhikary et al., 2024; Delicate et al., 2018; Kurth et al., 2011; Ragni et al., 2020; Ramsauer & Achtergarde, 2018). Parenting quality may be impaired by depression, anxiety and PTSD and reduced maternal bonding is associated with poorer infant outcomes, including less secure attachment, difficult temperament, higher colic ratings, and less positive infant mood (O'Dea et al., 2023). After childbirth, exhaustion caused by, for example, the baby's crying has been shown to decrease the parent's ability to concentrate, trigger depressive symptoms, and burden the interaction between parent and child (Kurth et al., 2011).

Severe mental illnesses, including psychosis and bipolar disorder, increase the risk of impaired parenting and decrease parental sensitivity (Ramsauer & Achtergarde, 2018; Vilaseca et al., 2025). Parents with borderline personality pathology often engage in maladaptive parenting, which is linked to negative outcomes for both offspring and the parent–child relationship (Steel et al., 2019). OCD, eating disorders, substance use, parental disability and neuropsychiatric conditions further burden parenting by increasing

emotional strain, reducing the parental capacity to respond sensitively, and potentially hindering bonding with the child and early parent–infant interaction (Austin et al., 2022; Burton et al., 2022; Ecob et al., 2025; Elliot et al., 2024; Elliot et al., 2024; Pingeton & Goodman, 2025).

The prevalence of mother–infant bonding problems in populations of mothers with concurrent psychiatric disorders is generally higher than in community samples. There are no formal definitions or diagnostic criteria for the presence or severity of maternal–infant bonding problems; prevalence rates are challenging to estimate. Reduced maternal bonding is associated with poorer infant outcomes, including less secure attachment, difficult temperament, higher colic ratings and a less positive infant mood (O’Dea et al., 2023).

Special circumstances

Special circumstances, such as neonatal intensive care (NICU) admissions, prematurity, low birth weight and traumatic childbirth, can further complicate the bonding process (Kutahyaliloglu & Scafide, 2023). For example, the NICU environment may delay the establishment of parent–infant bonding, highlighting the need for targeted support to promote early interaction in these contexts (Siverns & Morgan, 2019).

Postpartum and birth-related post-traumatic stress disorder (PTSD) can significantly impact maternal well-being, the mother–infant relationship and child development (Frankham et al., 2023; Furuta et al., 2018). The meta-analysis by Frankham and colleagues (2023) revealed that symptoms of birth-related PTSD are negatively associated with the quality of the mother–infant relationship. The authors suggest that improving mothers’ birth experiences could play a significant role in enhancing infant mental health outcomes. In addition, trauma-focused psychological therapies (TFPT) have been explored for their effectiveness in supporting postnatal women experiencing PTSD symptoms (Furuta et al., 2018). Among mothers facing mental health challenges, positive breastfeeding experiences can mediate positive outcomes such as enhanced mother–infant bonding, increased self-esteem and a perceived potential for healing (Billings et al., 2024).

Socio-demographic and social inequality factors

Socio-demographic factors can also influence parenting skills and the quality of early interactions with the infant (Kim et al., 2025). Socioeconomic stressors, such as financial hardship, can undermine the ability of parents to meet basic needs and increase strain. This may lead to overprotective behaviours, which can also reflect real environmental risks but also be a result of parental trauma (Siverns & Morgan, 2019). These challenges are particularly pronounced in high-risk groups, where early interaction requires additional support. Parenting programmes frequently address these issues by offering guidance on fostering early bonding and interaction. These interventions are particularly important, as strained parent–infant relationships can adversely affect parenting practices and the overall well-being of the child (Kim et al., 2025). Social support and positive adult relationships may buffer some effects, but cumulative trauma tends to intensify depressive outcomes (Alvarez-Segura et al., 2014).

Paternal attachment

Paternal attachment is influenced by several key factors, including positive emotional experiences, support from partners and maternal–foetal attachment (Sun et al., 2025). Beside demographic and pregnancy-related factors (age, parity and pregnancy planning status), they reported that relationship-related factors (including marital quality, partner support and maternal–foetal attachment) are significant predictors of paternal bonding. Psychological factors such as anxiety, depression and a history of mental illness negatively influence attachment, while positive emotions have a stronger positive effect. Family income had no significant effect, which contrasts with maternal attachment research. This inconsistency may reflect cultural differences in how economic resources shape emotional engagement and unmeasured confounders such as relationship quality and mental health (Sun et al., 2025).

Social support protects the well-being of the family

Social support is one of the most significant protective factors for parents during the perinatal period. It buffers stress, promotes resilience and reduces the risk of mental health challenges such as depression, anxiety and post-traumatic stress disorder (PTSD). Support from partners, family, peers and professionals enhances emotional stability, strengthens relationships and builds parenting confidence (Silva-Fernandez et al., 2023; Xiao et al., 2021; Shorey & Chan, 2020). This chapter draws primarily on studies conducted with two-parent families; however, in the Nordic context, single-parent families form a significant proportion of all households, and their perinatal support experiences may not be fully represented in the current evidence.

A lack of support from close ones, peers and professionals has been identified in several studies as a risk factor for weaker well-being. A lack of social support is a risk factor for the development of various mental health problems during pregnancy, such as depressive symptoms during the perinatal period (Bedaso et al., 2021; Evans & Bullock, 2012; Lancaster et al., 2010, Holopainen & Hakulinen, 2019) and experiences of anxiety and stress during the perinatal period (Bedaso et al. 2021; McCarthy et al., 2021; Philpott et al., 2019). Notably, a lack of intimate partner support demonstrated one of the strongest associations with antenatal depression (Lancaster et al., 2010) and dissatisfaction in the relationship increased the risk of paternal depression (Ansari et al. 2021).

Partner support is essential for maternal and paternal mental health. It protects against depression and anxiety, contributes to a positive birth experience and promotes emotional stability during the transition to parenthood (Silva-Fernandez et al., 2023; Xiao et al., 2021; Shorey & Chan, 2020). For fathers, relationship quality and co-parenting cooperation predict paternal bonding and adjustment, while open communication and teamwork help manage stress and maintain family harmony (Sun et al., 2025; Shorey & Chan, 2020). In traumatic birth experiences and PTSD, partner involvement and emotional support are critical. Couples who face trauma together often strengthen their bond through shared coping strategies, reducing isolation and promoting recovery (Shorey et al., 2022).

Beyond intimate relationships, peer support and community connections reduce loneliness and stigma. Empathy from healthcare professionals and peer groups provides emotional security and encourages help-seeking among mothers experiencing perinatal depression or anxiety (Adlington et al., 2023; Aiyar et al., 2023). For immigrant and refugee families, social support from community networks and culturally sensitive care mitigate isolation and promote psychosocial well-being (Almeida et al., 2024; Fair et al., 2020).

Practical assistance from family members, such as help with domestic tasks and childcare, further supports parents' daily functioning and reduces stress during the postpartum period (Fair et al., 2020). Social support also buffers the effects of intimate partner violence and other traumatic experiences, helping parents maintain emotional stability and resilience (Alvarez-Segura et al., 2014).

Adlington et al. (2023) highlighted themes illustrating the interplay between perinatal depression and loneliness, including self-isolation and concealment of symptoms driven by stigma and fear of being perceived as a 'bad mother'. Women often report a sudden emotional disconnect after childbirth and a gap between anticipated and actual support from partners, family and the community. Pregnant women lacking support struggle to find someone to confide in or help manage distressing emotions, increasing vulnerability to stress and depression (Bedaso et al., 2021). Loneliness is compounded in disadvantaged communities by stigma and reduced access to support. Key mitigating factors include validation and empathy from healthcare professionals, peer support from other mothers and practical and emotional assistance from family members. A lack of social support or emotional isolation emerged as a central theme among pregnant women experiencing depressive symptoms and has been consistently linked to increased psychological distress across diverse cultural contexts. Despite its complex manifestations, the need for social support during pregnancy appears to be universal (Evans et al., 2012).

Strong social support is consistently identified as a protective factor for maternal perinatal anxiety and stress (McCarthy et al., 2021), postpartum depression (Silva-Fernandez et al., 2023) and positive birth experiences (Benyamini et al., 2024). It also provides relief for parents with adverse childhood experiences (Alvarez-Segura et al., 2014; Chamberlain et al., 2019). According to Atzl, Granden, Davis and Narayan (2019), social support from family and romantic partners during the perinatal period, combined with internal strengths such as self-esteem and coping ability, plays a significant protective role for women with histories of childhood abuse or neglect. Social support also facilitates help-seeking for perinatal challenges (Jones, 2019; Rouhi et al., 2019) and adaptation to changes during this period (Johnson et al., 2020; Lee et al., 2023).

In conclusion, emotional, practical or informal social support promotes resilience, protects mental health and enhances coping capacity during one of life's most vulnerable phases. Its presence is linked to better outcomes for parents and children, while its absence increases the risk of isolation, psychological distress and impaired family functioning (Evans & Bullock, 2012; Lancaster et al., 2010; McCarthy et al., 2021).

Findings from the psychosocial intervention review for the relationship and connectedness domain

In this psychosocial intervention information portal review, a total of 21 interventions were identified as fitting in the domain of relationships and connectedness. Eight of these interventions were universal, nine targeted at-risk groups and four therapeutic interventions. Many psychosocial intervention programmes are delivered in group formats or are adapted to group-based delivery, aiming to strengthen social support (for example, COPEing with toddler behavior, Incredible years and Mellow Bumps). Similarly, programmes designed, for example, for teenage mothers often recognize the lack of social support as a critical issue. None of the psychosocial interventions in Nordic portals were directly targeted at loneliness or social isolation. However, two psychosocial interventions in UK and US portals targeted loneliness as part of broader goals (EPEC Baby and Us version, targeted at families living in areas of high social deprivation, and MOM Power, aiming to reduce multiple risks, including isolation). None of the interventions were targeted at single parents and only one mentioned challenges in the parents' relationship as a primary goal.

Universal parenting programmes typically embed elements of peer support, although this is not always explicitly stated among the programme's objectives. In addition, some parenting programmes aim to support the role of fathers and co-parenting skills (for example, Family foundations and Parenting together project). Nunes et al. (2021) pointed out that the transition to parenthood can be stressful, often triggering family conflicts that harm relationships and threaten the psychological health of new parents. Moreover, co-parenting interventions for first-time parents have demonstrated positive effects, for example by strengthening parent–child interactions, as well as enhancing couple communication. All parenting support programmes, as well as many risk-focused interventions, include elements that strengthen and support parent–child interaction, even when their primary objectives are broader parenting skills or goals specifically related to risk groups.

Many of the psychosocial interventions are specifically targeted at early interaction, bonding or attachment between the parent(s) and child. They aim to enhance mentalisation skills and positive interaction between a parent/caregiver and the child by strengthening sensitivity to notice and recognize the child's needs and initiatives. Only two co-parenting programmes whose effectiveness was graded were found in the search of intervention information portals, but some programmes may be flexible in including both parents, and in this way may strengthen the parental relationship, as well as the interaction with the child. Clinicians and services practically implementing attachment-based interventions should be guided towards those interventions that have been suggested to have the most encouraging supporting evidence.

Table 9. Identified effective psychosocial interventions in Relationship and connectedness domain.

Intervention	Relationships and connectedness*			
	Lack of social support	Challenges in relationship	Parent – child bonding, attachment and early interaction challenges	Single parents
NORDIC EFFECTIVENESS GRADING				
COPEing with Toddler Behavior (CWTB)			X	
ICDP			X	
Incredible Years			X	
Marte Meo			X	
Mellow Bumps			X	
Modified Mother–Infant Transaction Program (MITP)			X	
Neonatal Behavioural Assessment Scale (NBAS)			X	
Newborn Behavioural Observation (NBO)			X	
Parent–Baby Intervention			X	
Parent–Child Interaction Therapy (PCIT)			X	
Parent–infant psychotherapy (PIP)			X	
Supporting parent-child interaction			X	
Triple P – Positive Parenting Program® (Triple P for Baby)			X	
VIG			X	
Watch, wait and wonder			X	

EFFECTIVENESS GRADING IN THE UK/USA

EPEC Baby and Us -version (parents of babies 0-1)	X		X	
Michigan Model of Infant Mental Health Home Visiting, The (IMH-HV)			X	
Mom Power®	X		X	
Parenting Together Project (PTP)		X		
Promoting First Relationships (PFR)			X	
IPP Infant-parent psychotherapy			X	

Universal prevention / Targeted at risk groups / Thearapeutic interventions

**) Reminder: The selected portals only include interventions that have been evaluated within the assessment systems according to specific criteria, with an emphasis on research-based evidence of effectiveness. The interventions that demonstrate at least some research-based evidence of effectiveness are presented. The assessment systems operate dynamically, and the information presented in this report may therefore be updated quite rapidly. Regular monitoring of the relevant portals of these assessment systems is recommended (see [refer to chapter/headline]). The checkmarks reflect what was indicated as the primary target group or objective in the portal descriptions of each intervention. Many interventions have multiple secondary goals and effects, so additional checkmarks could apply in practice.*

In the literature, some approaches appeared to have a role in strengthening family and mother–infant relationships, as well as connectedness with communities and other social relationships. Many protective practices improve mother–infant bonding. For example, Karimi et al. (2020) found in their systematic review and meta-analysis that kangaroo mother care improved mother–infant attachment. They also suggested this to be taken into consideration in evidence-based decision-making by healthcare providers. Research has demonstrated that maternal–foetal attachment is positively influenced by practices such as consciously counting foetal movements (AlAmri & Smith, 2022). Women who engaged in this practice reported significantly higher maternal–foetal attachment levels than those who did not.

The effects of home-visiting preventive parenting programmes on improving the quality of mother–child interactions in early childhood have been found positive by improving maternal sensitivity and responsiveness to the baby (Alves et al., 2024). Methods using video feedback and live feedback could have benefits, since they strengthen maternal self-awareness and provide space for mothers to reflect on their own parenting behaviour (Alves et al., 2024).

According to a systematic review by Wittkowski et al. (2025), attachment-based interventions for risk groups can improve caregiver–infant relationships and their subsequent psychological outcomes, even if this is not the primary goal of the intervention. The most promising evidence was identified for the intervention programmes Attachment and Biobehavioral Catch-Up (ABC), Minding the Baby (MTB) and Circle of Security (COS) (which are targeted at risks of abuse, neglect or other high developmental risks). Bright et al. (2020) pointed out that as a treatment intervention, IPT, being effective in significantly reducing symptoms of depression and anxiety, is also effective in improving social support and relationship quality or satisfaction.

Group- and community-based approaches have a role in enabling social support and preventing loneliness. They have also been found to be beneficial for mothers with an immigrant background (Stevenson et al., 2024; Yeshitila et al., 2024). These may support feelings of social connectedness, even if the main goal of the intervention is targeted elsewhere.

Creative methods and collaborative activities can also serve as factors that strengthen the sense of belonging. There appears to be a role for arts-based interventions to be used as social support for women during the transition to motherhood in recovery from depression and to prevent isolation (Cluderay et al., 2025). Of the art-based approaches, music and singing were the most prevalent interventions employed, with all studies including this either as the main art form or as a key component within a programme of creative activities. The theme of community and peer support were the main components of these approaches, except in one study, in which participants were couples.

Key observations from Nordic expert discussions concerning the relationship and connectedness domain

Experts noted increasing polarisation in parenting experiences: some parents feel overwhelmed by expectations, while others lack basic skills such as infant nutrition and clothing guidance. Universal services remain essential for identifying infants at risk, including those exposed to negative family interactions, violence, neglect, out-of-home care, conflict-related migration, developmental difficulties, prematurity, sensory impairments or chronic illness.

Experts noted that increased screen time among parents and families may impair their ability to respond sensitively to a baby's cues. When attention is focused on mobile devices, a parent's ability to detect subtle cues may be delayed. This may affect the baby's experience of how predictable and reciprocal the interaction is. According to experts, guidance alone is not enough; families should be offered concrete ways to create moments when parents and children can focus on each other without digital distractions.

A child's temperament may act as either a risk or protective factor, and the parent-child temperament fit requires attention. Differences in temperament can manifest, for example, in a parent being calm and thoughtful while the child reacts sensitively and strongly, or vice versa. This can challenge the parent's ability to anticipate the child's needs or use regulatory strategies. Experts emphasized that guidance on recognising temperament traits and taking them into account in daily life can support the development of positive interaction.

Regular appointments and home visits by public health nurses offer a unique opportunity to identify families' support needs at an early stage. Home visits allow for interaction and the observation of daily routines and potential risk factors in a natural setting. Experts emphasized that these practices require sufficient staffing resources to ensure that the workload does not compromise service quality. Additional training needs were particularly related to the assessment of early interaction, early identification of mental health issues, culturally sensitive working methods, and evidence-based interventions.

Experts stressed the need for support for basic parenting skills and more attachment-focused interventions. Structured follow-up to strengthen early bonding was recommended, alongside broader use of approaches such as the NBO system and the Solihull Approach Antenatal Parenting Group, which require more Nordic research. Expectant fathers and non-birth parents should be systematically included in maternal health care. Despite consensus on their importance, focus on their well-being remains limited.

Loneliness was identified as an under-recognised issue requiring further research, particularly among single parents, socially isolated families and immigrant parents. Peer support was valued across all countries, with a need for structured, professionally facilitated groups. Strained parental relationships highlight the need for relationship support and risk identification for intimate partner violence.

Security, safety and a sustainable environment



Image: Masma / Johnér

This chapter addresses the domain of security, safety and a sustainable environment of the WHO maternal well-being framework. This domain is composed of a variety of constructs to ensure physical and financial safety and security, as well as adaptability and resilience to the environment, including climate-related events (Le Lez et al., 2025).

This chapter discusses subdomains of the domain security, safety and a sustainable environment related to psychosocial well-being during pregnancy, childbirth and the child's first two years. as well as the associations between mental health and social inequalities. It emphasises the multinominal and directional nature of social and societal-level structures and individual well-being. The chapter also addresses violence in relationships and adverse childhood experiences.

Adverse childhood experiences (ACE) refer to harmful, stressful, hurtful or traumatic experiences during childhood that can jeopardize a child's safety, development, care, health, nutrition, learning opportunities and emotional well-being. These experiences may be related, for example, to parental neglect, family conflicts, violence, substance abuse, mental health problems or safety hazards in the child's living environment. The original ACE classification of Felitti et al. (1998) included ten key adverse childhood experiences in three main categories:

- Neglect
- Abuse
- Family difficulties (e.g., violence, substance abuse, mental health problems, parental divorce)

The original ACE classification has been criticized for being too narrow, as it does not take into account adverse childhood experiences outside the home. For this reason, the list has since been expanded. The expanded ACE definition adds:

- Poverty and social conditions,
- Illnesses of the child and parent,
- Risks in the growth environment outside the home,
- Peer violence
- Structural discrimination and racism

(Jussila et al., 2024)

Adverse childhood experiences are risk factors for the parent and child

Adverse childhood experiences (ACEs) such as poverty, abuse, neglect and various types of household dysfunction experienced in childhood are associated with increased health risks across the life course and are especially relevant during the perinatal period (Racine et al., 2021). Exposure to ACEs can influence neurological and physiological development, increase vulnerability to health-harming behaviours and heighten the risk of mental illness and chronic disease. Population-level impacts of ACEs are caused by intimate partner violence, followed by harmful alcohol use, illegal drug use and anxiety. Violence, addiction and maltreatment are part of a broader social burden that affects parenting and intergenerational well-being. They highlight the need to understand family-level challenges to strengthen prevention and early intervention efforts (Hughes et al., 2021).

Earlier experiences of adversity, especially violence or maltreatment, can resurface during the perinatal period. Stressful memories and cognitions associated with childhood abuse and household dysfunction may re-emerge during pregnancy or in early parenting, increasing vulnerability to mental health difficulties (Alvarez-Segura et al., 2014; Racine et al., 2021). Parents who have experienced maltreatment in childhood have reported ambivalent feelings about becoming a parent and multiple psychosocial challenges, including internal distress, pressures to be a good parent, concerns about safety and a lack of parental role models (Chamberlain et al., 2019). There is robust evidence linking maternal ACEs with perinatal depression and prenatal anxiety, and exposure to abuse is associated with more severe and prolonged depressive symptoms.

Combined experiences of childhood and adulthood abuse further intensify this risk (Alvarez-Segura et al., 2014; Racine et al., 2021). Trauma may be reactivated by bodily experiences (such as pregnancy, birth and breastfeeding) or by perceived loss of control in care settings. This can potentially lead to emotional dysregulation, relational difficulties and avoidance of services. Women have described how the physical changes during pregnancy and the lack of control during childbirth triggered their memories of childhood sexual abuse (Chamberlain et al., 2019; LoGiudice, 2016).

Parents with a history of childhood trauma may also face challenges in child rearing. Trauma can hinder the formation of emotional bonds with children. Parents who did not experience secure attachment themselves may find it difficult to be warm and responsive. Managing both personal emotional needs and those of the child can feel overwhelming, and parenthood may heighten vulnerability. This can impair the parent's ability to recognise and regulate the child's emotions, influencing attachment quality.

For some, however, parenting represented a meaningful opportunity to break free from the past, even when strategies for change remain unclear (Siverns & Morgan, 2019). Parents with a history of maltreatment often report strong pressure to be good parents and to create a safe environment for their children (Chamberlain et al., 2019). They tend to evaluate their parenting skills more negatively and experience heightened uncertainty about being 'good enough', particularly when they lack personal models of safe and responsive parenting and instead rely on media or cultural ideals. Fears of harming the child and a strong desire to break cycles of abuse are central themes, but seeking help is often perceived as unsafe (Siverns & Morgan, 2019).

Although much literature focuses on difficulties, it is also essential to recognise and support parents' strengths, which may be overlooked. Some parents report that becoming a parent can be healing and provide a sense of direction and purpose. Parenthood may act as a turning point, prompting motivation to overcome challenges. Supportive and trusting relationships with care providers are especially important during this transition (Chamberlain et al., 2019).

The transmission of abuse across generations is not inevitable; it is shaped by the broader family, community and societal contexts (Siverns & Morgan, 2019). Positive childhood experiences, including safe environments and supportive relationships, can mitigate the impact of ACEs on maternal mental health during pregnancy and postpartum (Atzl et al., 2019). The perinatal period can also provide opportunities for healing, and for parents motivated to actively use strategies, such as connecting with others, strengthening the parent-child bond and consciously creating safe environments, to overcome their challenges.

High-quality care, characterised by safe, trusting relationships with providers, is a key factor in supporting parents with traumatic histories (Atzl et al., 2019; Chamberlain et al., 2019). Internal psychological resources (e.g. resilience, self-esteem and reflective functioning) play a significant role in reducing perinatal depression and PTSD symptoms and fostering secure mother-infant attachment among parents with ACEs. Broader life satisfaction, including housing stability, employment and community support, further strengthens resilience and supports positive parenting throughout the perinatal period (Atzl et al., 2019).

In the context of mental health, inequities can be understood as differences among groups in mental health outcomes or access to evidence-based interventions stemming from unfairness or injustice. The poorest mental health and most limited access to prevention and treatment are concentrated in groups marginalized by social and structural factors such as poverty, discrimination, violence and humanitarian crises. These factors increase mental health risks through cumulative stress, insecurity and loss of control. (McGinty et al., 2024).

Socioeconomic status and perinatal well-being

A low socioeconomic status has multiple effects on parenting and perinatal well-being. Social isolation, single parenthood, low income, an immigrant or refugee background and poor relationship quality increase the risk of perinatal depression (Ammerman et al., 2010; Bedaso et al., 2021; Heer et al., 2024; Kirubarajan et al., 2022; Pillas et al., 2024; Smythe et al., 2022). The stage of starting a family is often associated with concerns about finances and securing a livelihood, which can increase stress and undermine the sense of control (Ansari et al., 2021; Evans & Bullock, 2012; Lancaster et al., 2010). Low income, unemployment and limited resources are also associated with weaker psychological resilience, the risk factors for which include previous depression, psychiatric problems, poor sleep quality, premature birth, low income and unemployment (Hajure et al., 2024).

Financial limitations and money-related stress are reportedly risk factors for postpartum depression (Heer et al., 2024; O'Mahony & Donnelly, 2010). Low education, low income and single parenthood increase symptoms of depression during pregnancy (Evans & Bullock, 2012; Lancaster et al., 2010). After childbirth, mothers experiencing depression reported hopelessness related to financial concerns (Holopainen & Hakulinen, 2019). Long-term exposure to social and environmental disadvantage can lead to cumulative physiological stress (allostatic load), further increasing health risks (Siddika et al., 2023). For fathers, financial worries, unemployment and low educational attainment can increase the risk of postpartum depression and anxiety, especially when combined with relationship dissatisfaction and stress (Ansari et al., 2021).

Perinatal mental health disorders are more common among young pregnant women (Howard & Khalifeh, 2020), and being under 20 years of age is a clear risk factor for postpartum depression (Silva-Fernandez et al., 2023). For young mothers, the risk is often increased by socioeconomic challenges, poor social support and previous depression (Hymas & Girard, 2019). There are few young mothers in the Nordic countries, and in 2022, those under the age of 20 accounted for only 0.3–1.1% of mothers (Heino & Gissler, 2024).

Although studies focusing specifically on young mothers were excluded from this review, other studies highlighted the age of the mother as a risk factor.

Women with an immigrant background are particularly vulnerable when social isolation and low socioeconomic status are combined with previous mental health challenges (Nilaweera et al., 2014). In addition, structural discrimination and social injustices can further increase the risks (Siddika et al., 2023).

Socioeconomic factors also influence the use of services: poorer perinatal health and well-being outcomes among women with a low socioeconomic status may be associated with lower utilisation of health services (Grand-Guillaume-Perrenoud et al., 2022). Underuse of perinatal services is particularly common among young and less educated mothers, unmarried women, ethnic minorities and in areas with high levels of deprivation (Feijen-De Jong et al., 2011). People at risk of poverty or social exclusion are more likely to receive inadequate care during pregnancy and are at increased risk of poor perinatal health outcomes (Darling et al., 2020).



Families in risk or experiencing poverty in the Nordic countries

Child poverty has increased in the Nordic countries, despite their strong welfare systems. It is measured using Eurostat's at-risk-of-poverty (AROP) indicator, defined as living in a household with an income below 60% of the national median. Vulnerable groups include children in single-parent families, migrant and refugee children, large families and those affected by regional and labour-market inequalities. Policy differences across countries also contribute to varying poverty levels. For more information, see: [Children and youth at risk of poverty](#)

Socioeconomic disadvantage and child development

Research strongly indicates that disadvantages at the individual, family, community and societal levels have a significant impact on children's health and development.

Socioeconomic disadvantage is strongly linked to children's psychosocial and developmental outcomes and is also the most identified risk factor in studies examining parental well-being (Pillas et al., 2014).

Financial challenges and parental socioeconomic status are associated with increased stress and unhealthy health behaviours, such as smoking and being overweight, which in turn can increase the risk of preterm birth (Grote et al., 2010; McHale et al., 2022; Staneva et al., 2015). Housing instability and homelessness further reduce healthcare utilisation and are linked to low birthweight, preterm birth and delivery complications (DiTosto et al., 2021). Living in degraded or unstable housing environments increases the risk of preterm birth by elevating maternal stress, promoting harmful health behaviours and limiting access to nutritious food and health services (Siddika et al., 2023).

More broadly, regional deprivation, low parental education, unemployment, work overload, insecure housing and a lack of material resources are associated with many aspects of child health and development, such as general health, asthma, dental health and mental health. These factors are also associated with poorer cognitive, motor and language development in children, poorer school readiness and increased emotional and behavioural challenges. Associations are consistent across most European countries, including the Nordic countries (Pillas et al., 2014). Socioeconomic factors influence development throughout early childhood, with effects that appear to accumulate and intensify as children grow older (Pillas et al., 2014).

• FACTS & INSIGHTS •



Domestic and intimate partner violence

The search did not retrieve Nordic studies focusing on domestic or intimate partner violence studies. However, this does not necessarily mean that such work has not been conducted; it may lie outside the scope or inclusion criteria of the present review, and some recent findings from Nordic countries are highlighted below.

Intimate partner violence (IPV) refers to “any behaviour within an intimate relationship that causes physical, psychological or sexual harm to those in the relationship” (Eikemo et al., 2023). Despite high levels of gender equality, research from the Nordic countries indicates that *violence against women during the perinatal period is common*, with studies reporting lifetime violence exposure among pregnant women ranging from 15% to over 30%, and perinatal violence prevalence typically between 3% and 12%. A history of violence is the strongest predictor of perinatal abuse and is linked to severe consequences, including antenatal and postpartum depression, anxiety, PTSD symptoms, fear of childbirth and negative birth experiences, as well as increased risks of pregnancy complications, preterm birth and more obstetric interventions. Women with prior or ongoing experiences of violence also report more physical symptoms, higher healthcare use and a reduced sense of coherence during pregnancy (Finnbogadottir et al., 2024).

Experiences of violence in close relationships

Violence against women is a global public health issue that affects many women during the perinatal period. Violence in close relationships is intertwined with questions of gender norms, bodily autonomy, the sense of self and physical and mental health. Intimate partner violence (IPV), whether physical, emotional or sexual, is associated with serious health issues such as urinary tract infections, delayed access to prenatal care and, in rare cases, maternal death. All forms of IPV contribute to poorer pregnancy outcomes, such as preterm birth and miscarriage, and psychological IPV is particularly associated with premature rupture of membranes. IPV also contributes to inadequate gestational weight gain and delayed prenatal care, which can compromise pregnancy monitoring and lead to poorer outcomes, such as preterm birth (Pastor-Moreno et al., 2020).

IPV, whether physical, emotional or sexual, occurring close to the perinatal period is associated with weaker maternal mental health. Experiences of intimate partner violence and other forms of maltreatment are identified as associated with antenatal and postnatal depression (Alvarez-Segura et al., 2014; Ammerman et al. 2010; Evans & Bullock, 2012; Howard et al., 2013; Lancaster et al., 2010), as well as with postpartum anxiety and post-traumatic stress disorder (PTSD) (Howard et al., 2013). Recent intimate partner violence has been reported to increase the likelihood of depression by up to 2.5 times and was a strong predictor of antenatal post-traumatic stress symptoms, especially when combined with lifetime exposure. Psychological and sexual IPV were more strongly associated with persistent PTSS than physical IPV, and gender discrimination further intensified these effects (Paulson, 2022).

Women with a migrant background can be vulnerable to domestic violence, especially if restricted to talk and lacking knowledge of legislation in their new country (Fair et al., 2020). Experiences of domestic violence have also been identified as a contributing factor to perinatal anxiety and depression in fathers (Chhabra et al., 2020). Social support and positive adult relationships may buffer some effects, but cumulative trauma from both childhood and adult abuse tends to intensify depressive outcomes (Alvarez-Segura et al., 2014).

Experiences of disasters

Although studies on disasters are geographically diverse, they offer valuable insights into the broader significance of disaster-like experiences for mental health. Two studies reported the impact of catastrophic/disaster events (e.g., terrorist attacks and natural disasters) on women's mental health during the perinatal period. Harville, Xiong and Buekens (2010) reported that particularly prolonged exposure to a disaster increases the risk of maternal mental health problems, and that the mother's post-disaster mental state may have a greater impact on child development than stress experienced during the disaster itself. Another study found women who had experienced an earthquake to be at increased risk of antenatal mental health problems (Khatri et al., 2019). Hajure et al. (2019) reported that women who have experienced extreme weather conditions, especially including life threatening or traumatic experiences or illness, have weaker levels of resilience.

Findings from the psychosocial intervention review for the security, safety and sustainable environment domain

Total of 13 psychosocial intervention assessed as effective in information portals were targeted at parents or mothers identified as having social inequalities. These risks include financial insecurity, threats to physical safety or exposure to violence, disadvantaged or deprived environments and safety concerns related to childhood adverse experiences (ACE) of the parents. Only one of the interventions (CPP) was targeted at families who had experienced natural disasters or serious accidents, or similar types of crises.

Interventions that clearly targeted multiple risk factors simultaneously, or their cumulative complex nature, were placed in this domain. A different categorisation could have been made, but the presence of several risk factors tends to undermine a child's overall safe development particularly easily. The psychosocial interventions in this domain also similarly incorporate elements aimed at fostering socio-emotional well-being and a secure attachment between the baby and the parents, thereby supporting overall safety and a healthy start to the new life.

One psychosocial intervention, Family Growth Center, was targeted at young mothers living in high-risk neighborhoods, but there is no information on its effectiveness in the Nordic context. Overall, psychosocial interventions aimed at young mothers emphasize improving physical safety for both the mother and child. Additionally, they are typically aimed to enhance economic security, finding supportive services, and strengthening social support during the early stages of parenthood and adulthood. For teenage parents, supporting education and facilitating school completion may be included in supporting interventions.

Families experiencing *complex and multiple needs*, such as parental substance use, mental health problems, intimate partner violence, adverse childhood experiences, a refugee or undocumented status and socio-economic disadvantages, face compounded challenges. These circumstances make it difficult to identify comprehensive needs and select appropriate psychosocial interventions. Research emphasizes that engaging parents with multiple needs requires interventions that fit within the broader context of their lives, acknowledging everyday constraints and complexities (Bax et al., 2025). In the mapping of psychosocial intervention portals, ten interventions were identified that targeted multiple simultaneous needs. Five of these had been evaluated for their effectiveness in the Nordic context.

Table 10. Identified effective psychosocial interventions in the Security, safety & a sustainable environment domain.

Intervention	Security, safety & a sustainable environment*					
	Experience of disasters	Families at socioeco risk	Intimate partner violence	Disadvant or deprived environme	Parental child hood adverse experience (ACE)	Multiple risks

NORDIC EFFECTIVENESS GRADING

Child-Parent Psychotherapy (CPP)	X					X
Family check up (FCU) component 1-24 months						X
Mellow Bumbs		X		X		X
Minding the Baby® (MTB)		X	X	X		X
Nurse Family Partnership (NFP)		X	X		X	X
Safe Environment for Every Kid (SEEK)			X			

EFFECTIVENESS GRADING ONLY IN THE UK/USA

Child First					X	X
Family Growth Center, The (FGC)		X		X		X
Mellow Babies						X
Mom Power®						X
Parents as first Teachers /Parents as teachers (USA)						X
Preparing for life				X		
Promoting First Relationships (PFR)					X	

Universal prevention / Targeted at risk groups / Therapeutic interventions

*) Reminder: The selected portals only include interventions that have been evaluated within the assessment systems according to specific criteria, with an emphasis on research-based evidence of effectiveness. The interventions that demonstrate at least some research-based evidence of effectiveness are presented. The assessment systems operate dynamically, and the information presented in this report may therefore be updated quite rapidly. Regular monitoring of the relevant portals of these assessment systems is recommended.

Only a few studies on interventions targeting social inequalities were identified during the literature review. There is a need for high-quality research on intervention programmes that, for example, aim to reduce violence and their outcomes considering their prevalence in Nordic countries. Hare et al. (2024) identified two parenting programmes with evidence-based effects on infant mental health and the parent–infant relationship or attachment outcomes among infants experiencing homelessness (Attachment and Behavioural Catch-Up; Video-feedback Intervention Parenting Program), even though homelessness is not mentioned as a special target for these. Homelessness is less common in the Nordic countries, but these findings underline the importance of recognising that targeted interventions can provide meaningful benefits in addressing complex challenges when social risk factors overlap with other vulnerabilities.

To ensure interventions are both targeted and effective, timely and skilled *assessment* is essential. The perinatal period offers a unique opportunity for preventive and universal approaches, but identifying risk groups remains critical for safeguarding child well-being. Programmes aimed at educating *professionals* in perinatal care have demonstrated promise, particularly in preventing perinatal depression (McNeill et al., 2012; Wang et al., 2022). However, gaps persist in multiprofessional collaboration, especially in addressing psychiatric symptoms during pregnancy. Strengthening this collaboration and improving the recognition of individual needs are key areas for development.

Key observations from Nordic expert discussions concerning the security, safety and sustainable environment domain

Experts noted rising rates of intimate partner violence, as well as increasing criminality and radicalisation, as growing concerns. Parents of young children in prison were identified as a group needing more specialised support.

Economic stress and poverty are increasingly affecting families, contributing to housing difficulties, unemployment, relationship strain and risks of violence.

Digital security and equity in remote care were emphasised, particularly given increasing misinformation and declining health literacy. AI-related parenting tools were identified as an emerging area requiring ethical and practical scrutiny. Broader societal trends, such as polarisation, may generate new support needs to maintain fairness and equality in parenting support.

Foreign-born women, including refugees and asylum seekers, require targeted support, including culturally sensitive community structures to increase feelings of safety. Climate change and global crises, including pandemics and armed conflicts, were identified as stressors affecting maternal and infant well-being. Growing institutional mistrust may hinder access to care.

Autonomy, agency and resilience in parenting



Image: Mads Schmidt Rasmussen / norden.org

This chapter addresses, in line with the domain of the WHO maternal well-being framework on autonomy, agency and resilience, the importance and current state of supporting the transition to parenthood. This domain encompasses maternal and parental autonomy, the development of resilience and the promotion of agency, which refers to the ability to make informed choices and actively shape one's adaptation to parenthood, including access to parenting education and skills (Le Lez et al., 2025).

The literature search revealed the factors shaping psychosocial well-being during the transition to parenthood, focusing on fathers. In the literature search for this report, comparatively less research paid attention to the transition of mothers to parenthood, with more emphasis placed on risk factors, mental health outcomes and contextual influences than on mothers' own transitional experiences. The experiences of sexual and gender minorities are addressed in the next chapter. This chapter also highlights the importance of resilience and psychological coping strategies during the perinatal period.

Transition to parenthood

The transition to parenthood is one of the most significant changes in life, affecting individuals on psychological and societal levels, and physically for the birthing parent. This transition can be stressful, often triggering family conflicts that harm relationships and threaten the psychological health of new parents (Xiao et al., 2021).

Social pressure can make the transition to motherhood challenging

A successful transition to motherhood in the early postnatal period depends on the timely identification and fulfilment of women's needs. Negative feelings and pressures related to parenthood include unfulfilled role expectations and feelings of hopelessness associated with motherhood (Holopainen & Hakulinen, 2019; McCarthy et al., 2021). Negative body image and bodily changes after childbirth are commonly found to affect the mother's psychosocial well-being. Both internal and external factors, such as media and cultural norms, play a role (Lee et al., 2023). Unrealistic social norms and expectations contribute significantly to perinatal anxiety and stress, especially when women's experiences do not

match societal ideals (McCarthy et al., 2021). Depressed mothers have reported feelings of negative body image and loss of self-due to changes in their former body (Holopainen & Hakulinen, 2019). Mothers have reported pressure to succeed in breastfeeding, with failure leading to feelings of inadequacy and guilt (Billings et al., 2024).

Fathers need support in their transition to fatherhood

The transition to fatherhood brings significant psychological and social changes, and fathers, just like mothers, may experience increased stress and vulnerability during the perinatal period (Ansari et al., 2021). First-time fathers often report fears related to lifestyle changes that parenthood brings. Becoming a father can give men a sense of fulfilling their role as 'men', accompanied by new priorities and responsibilities. While most welcome this change, many express concerns about being a 'good father' and doing things 'right' (Baldwin et al., 2018).

Fathers experience stress related to gender roles in parenting and contradictions between expectations and actual experiences of pregnancy and childbirth (Chhabra et al., 2020). Father's stressors during the perinatal period include negative emotions about pregnancy, role limitations, feelings of incompetence and pressures to balance work and family life. Specific anxieties often centre on their partner's labour and the infant's well-being (Baldwin et al., 2018; Philpott et al., 2017; Shorey & Chan, 2020). Experienced fathers also report financial stress and concerns about treating children equally (Shorey & Chan, 2020). Stress peaks around childbirth and decreases in the postnatal period (Philpott et al., 2017).

During the postnatal phase, role strain and conflict are common stressors, as fathers struggle to balance responsibilities at home, work and in relationships, often leading to tension with partners and the extended family. Relationship quality often deteriorates, with fathers reporting neglect of the couple relationship and increased conflict during this period (Shorey & Chan, 2020). Expectations frequently fail to match reality, especially regarding breastfeeding and bonding, which are often more difficult than anticipated (Baldwin et al., 2018). Paternal postnatal mental health is important to maternal and perinatal healthcare (Suto et al., 2017). Many fathers feel uncertain and excluded during the perinatal period, struggling to find their role. They report feelings of inadequacy, fear, isolation and stress (Baldwin et al., 2018; Shorey & Chan, 2020).

These pressures contribute to increased stress, manifesting as tiredness, irritability and frustration (Baldwin et al., 2018). Elevated stress levels negatively affect fathers' mental health, leading to anxiety, depression, psychological distress and fatigue (Philpott et al., 2017). Fathers suffering from depression have also reported feeling underestimated and undervalued as parents by their partners (Holopainen & Hakulinen, 2019).

In addition, fathers report a lack of support. Fathers frequently feel undervalued by health professionals and lack resources tailored to men. Peer and workplace support are limited, leaving many without adequate guidance during this critical life stage (Baldwin et al., 2018). Barriers to support increase feelings of exclusion, and fathers often lack knowledge about available help, feeling stigmatised if extra support is needed. At the same time, fathers want to be recognised as important providers of support (Venning et al., 2021).

To cope, fathers often resort to denial or escape behaviours such as smoking, working longer hours or listening to music (Baldwin et al., 2018). Others rely on open communication and teamwork with their partners, seek help from friends, family or healthcare professionals, or adopt indirect strategies such as distraction through work, lifestyle adjustments and acceptance of limitations (Shorey & Chan, 2020).

Despite these challenges, many fathers describe positive aspects of their new role. Bonding with their child is deeply rewarding, and those who embrace change and work collaboratively with their partners adjust more successfully to fatherhood (Baldwin et al., 2018). The co-parenting relationship plays a significant role in family outcomes during this period (Xiao et al., 2021). Good preparation for fatherhood, a good bond with the child and the capability to recognise and accept the life changes that come with fatherhood contribute positively to paternal well-being (Baldwin et al., 2018; Shorey & Chan, 2020).

Consistent guidance supports the whole family

Evidence from a qualitative systematic review by Walker et al. (2019) highlights that many maternity services fail to adequately meet women's needs, particularly in areas such as postnatal health, newborn care, breastfeeding support and psychosocial well-being. When these needs remain unmet, women face increased risks of physical and emotional health challenges and reduced engagement in their own care.

Fathers have reported paternal participation and being included in parenting during pregnancy and after birth being a positive factor (Mprah et al., 2023; Suto et al., 2017). Fathers expressed a strong need for practical information on pregnancy, parenting skills and mental health through antenatal classes and small group discussions and highlighted the need for more preparation for fatherhood and support in managing relationship changes.

Suggested strategies included father-inclusive services, peer support groups and father-friendly resources. They also highlighted the importance of continued professional support after discharge and access to digital resources such as mobile health applications to receive timely guidance (Baldwin et al., 2018; Shorey & Chan, 2020). Further research and interventions are required to provide partners of pregnant women with evidence-based information and support whole families during the perinatal period (Suto et al., 2017).

Good care for new parents is based on continuity, cultural sensitivity and a family-centred approach. These factors increase feelings of security and reduce risks such as postpartum depression. Consistent and coherent guidance, especially in infant care and breastfeeding, as well as clear information on where to seek help strengthen parents' confidence and well-being. Support from partners and loved ones, combined with empowering interaction with professionals, improves satisfaction and promotes a successful transition to parenthood (Walker et al., 2019; Wiklund et al., 2018).

Resilience during the perinatal period

Resilience is a key protective factor for parents during the perinatal period. It reduces the risk of depression, anxiety and PTSD and promotes overall parental and child well-being. Resilience enables parents to develop effective coping mechanisms, seek help when needed and manage stress in ways that support psychological health. Strong resilience is associated with lower psychological distress and better adaptation to life challenges, which is emphasised during pregnancy and the postpartum period, when emotional and physical demands are high (Hajure et al., 2024).

Individual resources are intertwined with social factors

A range of internal and external factors contribute to strengthening resilience. Internal capacities such as coping skills, self-esteem and reflective functioning are relevant for parents with adverse childhood experiences (ACEs) or perinatal depression. These strengths support effective coping, prevent PTSD and depression, and promote secure attachment with their child (Atzl et al., 2019; Evans & Bullock, 2012). Optimism as a personality trait has also been identified as a promising protective factor against perinatal depression (Evans & Bullock, 2012).

Psychosocial resources further enhance resilience. Positive cognitive appraisal, gratitude, a sense of mastery, and healthy family functioning promote mental well-being and reduce psychological strain. These resources help parents adapt to challenging life situations and maintain emotional stability (Hajure et al., 2024). After traumatic experiences, parents often rely on active coping strategies. Following traumatic births, strategies such as open discussion, seeking information and turning to faith promote healing and support emotional recovery (Shorey et al., 2022). For parents facing severe mental illness or social isolation, strength-based and family-focused support helps prevent exclusion, supports continuity of care and promotes emotional security (Harries et al., 2023). Trusting relationships with healthcare providers are essential for parents with trauma histories, fostering safety and supporting coping during the transition to parenthood (Chamberlain et al., 2019).

Sense of coherence is closely linked to resilience

A sense of coherence, which refers to the ability to use available resources to manage stress and maintain control, is closely linked to resilience. It improves mental well-being, reduces stress and contributes to better relationship quality and positive birth experiences. It also helps parents in managing bodily changes after childbirth and recovering from unexpected crises such as natural disasters (Khatri et al., 2019; Lee et al., 2023; Shorey & Ng, 2020). Factors associated with a sense of coherence include maternal age, marital status, education, income level, an immigrant status, smoking habits and attitudes toward childbirth and pregnancy planning (Shorey & Ng, 2020).

External conditions shape resilience

Resilience is influenced by external conditions. Social support from family, partners and professionals is consistently recognised as a protective factor that buffers against stress and promotes resilience, especially when parents experience emotional strain or feelings of inadequacy (Lancaster et al., 2010; McCarthy et al., 2021). A stable and secure environment, including housing, employment and community support, promotes resilience and positive parenting in contexts of socioeconomic stress (Atzl et al., 2019). Financial support and access to services mitigate the impact of financial insecurity and housing difficulties, help parents cope and prevent depression (Heer et al., 2024).

In addition to structural and social factors, cultural and spiritual resources contribute to resilience. Spirituality and belonging to a religious community provide emotional security, reduce isolation and support psychological well-being in situations of financial insecurity and a risk of stigmatisation (Aiyar et al., 2023; Evans & Bullock, 2012; Hajure et al., 2024; Shorey et al., 2022). Maintaining cultural practices also promotes emotional well-being and strengthens identity (Aiyar et al., 2023).

Factors associated with low resilience

Low resilience is associated with feelings of a loss of control over life circumstances and is linked to postpartum depression and increased vulnerability to PTSD (Ayers et al., 2016; Holopainen & Hakulinen, 2019). Risk factors for lower levels of resilience include a history of depression, prior psychiatric problems, poor sleep quality, preterm delivery, low family income, unemployment, a young partner age and strong fear of childbirth (Hajure et al., 2024). Negative childhood experiences and heightened anxiety further weaken the coping capacity during the perinatal period. Pregnant women tend to be more resilient than postpartum women, and parental self-efficacy plays an important role in overall family well-being (Albanese et al., 2019; Hajure et al., 2024).

Findings from the psychosocial intervention review for the autonomy, agency and resilience domain

Eleven universal parenting programmes evaluated as effective in psychosocial intervention information portals aimed to ensure that parents would have accessible and equal possibilities for support for their parenting skills during the perinatal period. These psychosocial interventions emphasize autonomy and resilience, primarily targeting mothers. Most of these psychosocial interventions are supporting the transition to parenthood and are often directed at mothers or parents expecting their first child, or those with a newborn as the firstborn.

Two of the mapped interventions in this domain were clearly directed at preventing maternal stress and increasing confidence as a parent (Marte Meo and Parent–Child Interaction Therapy). Two psychosocial interventions with a Nordic effectiveness evaluation were directed at young mothers or parents (Minding the Baby and Nurse Family Partnership), and five more were identified in additional international portals. In addition, many interventions targeted at different risk groups (eight of the interventions in this domain), for example mothers with depression, also aim at supporting adaptation to motherhood due to the overlapping nature of these factors. Only one of the interventions (PCIT) in this domain was therapeutic intervention.

Table 11. Identified effective psychosocial interventions in the Parental autonomy, agency and resilience domain.

Intervention	Parental autonomy, agency & resilience*				
	Low resilience and ability to cope	Parents with disabilities	Negative body image	Young mothers/parents	Transition to parenthood

NORDIC EFFECTIVENESS GRADING

ICDP					X
Incredible Years					X
Marte Meo	X				X
Minding the Baby® (MTB)				X	X
Neonatal Behavioural Assessment Scale (NBAS)					X
Newborn Behavioural Observation (NBO)					X
Nurse Family Partnership (NFP)				X	X
Parent–Child Interaction Therapy (PCIT)	X				
Supporting parent-child interaction					X
Triple P – Positive Parenting Program® (Triple P for Baby)					X
VIG					X

EFFECTIVENESS GRADING ONLY IN THE UK/USA

Adolescent Parenting Program (APP)				X	X
Computer-Assisted Motivational Intervention (CAMI)				X	
Family Foundations (FF) (eFF)					X
Family Growth Center, The (FGC)				X	
Family Nurse Partnership				X	

Family Spirit®				X	X
Parenting Together Project (PTP)					X
Parents as first Teachers /Parents as teachers (USA)					X
Solihull Approach Antenatal Parenting Group					X

Universal prevention
Targeted at risk groups
Therapeutic interventions

**) Reminder: The selected portals only include interventions that have been evaluated within the assessment systems according to specific criteria, with an emphasis on research-based evidence of effectiveness. The interventions that demonstrate at least some research-based evidence of effectiveness are presented. The assessment systems operate dynamically, and the information presented in this report may therefore be updated quite rapidly. Regular monitoring of the relevant portals of these assessment systems is recommended. See chapter [Mapping of psychosocial intervention information portals](#)*

The checkmarks reflect what was indicated as the primary target group or objective in the portal descriptions of each intervention. Many interventions have multiple secondary goals and effects, so additional checkmarks could apply in practice.

Studies in the review demonstrated that universal preventive parenting programmes appear to be effective, especially for first-time parents. Providing universal parent education interventions that focus on enhancing parents' self-efficacy may be protective against the detrimental effects of fatigue (Amin et al., 2018). Some study findings suggest that web-based interventions have the potential to improve self-management, acceptance of pregnancy/motherhood and social support. Providing convenient and potentially anonymous access to effective treatment may also be useful (Ashford et al., 2016). It can additionally be a way to reach vulnerable pregnant women and mothers with barriers to health information and facilitate access to healthcare services.

Key observations from Nordic expert discussions concerning the autonomy, agency and resilience domain

Nordic experts emphasised the need for clear, evidence-based guidance on parenting while simultaneously supporting parents' inherent capabilities and resilience. This dual approach is essential for reducing stress and building confidence.

Preventive measures must meet the needs of diverse families, combining universal and targeted support. For parents with different cultural or linguistic backgrounds, tailored preventive approaches are increasingly necessary and link closely to the domain of culture and values.

Experts highlighted the need for more research on high parenting-related stress among young women, body-image changes during pregnancy and fear of childbirth. There is a lack of national guidance on addressing these issues, which often relate to tensions between parental autonomy and societal pressures. Unrealistic expectations can heighten anxiety and reduce resilience.

Culture and values



Image: Plattform / Johnér

The culture and values domain of the WHO maternal well-being framework focus on how equity, justice, dignity, respect and culturally supportive practices shape perinatal experiences. The domain comprises five subdomains, including gender norms, human rights, cultural beliefs, social power relations and demographic elements, all of which are highlighted as essential determinants of maternal and parental well-being (Le Lez et al., 2025).

This chapter discusses factors affecting the psychosocial well-being of foreign-born parents, primarily immigrant and refugee families, and of sexual and gender minority families. It summarises key risks and protective factors identified in the research literature, as well as culturally and structurally mediated experiences that shape help-seeking and access to services.

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Migration in the Nordic Region

The Nordic Council of Ministers' standardized definitions for migration statistics highlight regional differences revealed by these classifications. Since the 1990s, the share of foreign-born residents (individuals born abroad) has grown everywhere except Greenland, with Sweden consistently leading and Finland at the lower end. Smaller territories such as Åland and Iceland have high proportions relative to their populations, although absolute numbers remain modest (Berlina et al., 2025).

By 2025:

- Sweden hosted about 2.2 million foreign-born residents
- Norway: 1.06 million
- Denmark (including the Faroe Islands and Greenland): 877,000
- Finland and Åland: 589,000
- Iceland: 82,000

[Policy Frameworks for Migrant Integration in the Nordic Countries \(2025\)](#) offers detailed insights into the governance, coordination and implementation of integration policies, including responsibilities across ministries and local actors, strategic policy directions, recent legislation and key measures such as introduction programmes, settlement schemes and language training.

Accumulating stressors challenge the psychosocial well-being of immigrant and refugee families

Research has identified that immigrants face a significantly increased risk of various psychosocial challenges during the perinatal period. In addition to universal risk factors, immigrants encounter unique cultural and migration-related challenges and may carry substantial life-related burdens. Individuals with immigrant backgrounds often struggle to adapt to a new country and environment (Heslehurst et al., 2018; Klas et al., 2023), including adjusting to changed roles and parenting in the new recipient country (Aiyar et al., 2023). Living between two cultures may be difficult when individuals try to maintain their cultural identity while simultaneously adapting to a new society, service system and maternal identity (Pangas et al., 2019). An uncertain legal status, such as waiting for an asylum decision, can further undermine psychosocial well-being and may act as a barrier to seeking help (Balaam et al., 2022; Firth et al., 2022).

Women with refugee and immigrant backgrounds often carry burdens and trauma related to previous life experiences (Almeida et al., 2024; Heer et al., 2024). Prior mental health problems have been shown to increase the risk of the postpartum depression among immigrant women among social determinants (Nilaweera et al., 2014). The prevalence of postpartum depression is higher among women with immigrant backgrounds compared to the general population (Almeida et al., 2013; da Conceição et al., 2015). In a review by Winter, Due and Ziersch (2024), prevalence rates of depressive symptomology ranged from 22–43% during pregnancy and 25–57% postpartum. Among refugee and asylum-seeking women, the prevalence of postpartum depression has been reported to be as high as 22.5%, compared to 17.5% in other populations (Heer et al., 2024). Traumatic experiences and other risk factors contribute to higher rates of mental health disorders among refugee women, including PTSD, depression, sleep disorders, anxiety and schizophrenia (Klas et al., 2023).

Refugee and asylum-seeking parents have reported limited social support from family and the community, as well as experiences of isolation and loneliness (Aiyar et al., 2023; Almeida et al., 2024; Balaam et al., 2022). Separation from family and other close relationships often results in a lack of social support in the recipient country, a known risk factor for psychosocial challenges during the perinatal period. Social isolation, experiences of discrimination and relationship challenges are further identified risk factors for postpartum depression among immigrant women (Heer et al., 2024; Nilaweera et al., 2014). More broadly, inadequate social support is associated with an increased risk of mental health disorders and poorer perinatal well-being among immigrant parents (Heslehurst et al., 2018; Klas et al., 2023). Immigrant, refugee and asylum-seeking fathers have also reported insufficient social support (Aiyar et al., 2023; Vo et al., 2024).

Lower socioeconomic status

Refugee and asylum-seeking women also face various challenges related to housing and financial situations (Balaam et al., 2022). Financial pressures may make it difficult to cover basic living costs, transportation to appointments and costs of essential care. Many express concerns regarding living conditions (Fair et al., 2020). Men have reported

concerns related to employment and financial security, which contribute to anxiety about supporting their wives (Aiyar et al., 2023). Financial limitations and related stress are recognised risk factors for postpartum depression (Heer et al., 2024; O'Mahony & Donnelly, 2010). A lower socioeconomic status also affects access to and the quality of services (Dela Cruz et al., 2023). In some regions, rates of intimate partner violence are higher than the global average and may constitute a particular risk to the safety and well-being of immigrant and refugee women (Winter et al., 2024, citing WHO, 2013).

Protective factors and cultural influences

Cultural and family influences play a significant role in shaping women's experiences during the postnatal period. Supportive family networks and adequate health literacy can enhance well-being, while cultural beliefs, social norms and family pressures may create barriers to accessing professional care. These challenges can lead to disengagement from health services, underscoring the importance of culturally sensitive approaches (Walker et al., 2019).

Social support has constantly been identified as a key a protective factor for the psychosocial well-being of immigrant families. Support from a partner, family and the wider community is associated with increased help-seeking, better well-being outcomes and improved coping with psychological stress (Almeida et al., 2024; Dela Cruz et al., 2023; O'Mahony & Donnelly, 2010; Winter et al., 2024). Fair et al. (2020) found that women who had family members nearby benefited from assistance with domestic tasks and received guidance and support.

Developing new friendships, enrolling in education or employment, connecting with religion and using childcare to allow time for self-care were reported as beneficial coping strategies. Maintaining cultural practices, such as eating traditional foods and celebrating birth with the family, positively impacted emotional and physical well-being during pregnancy and postpartum (Aiyar et al., 2023). Women employ a variety of strategies to cope with perinatal mental health symptoms. Support from others with similar experiences is often particularly valuable. Spirituality and spiritual communities can also serve as meaningful sources of support (Aiyar et al., 2023; Watson et al., 2019).

• FACTS & INSIGHTS •



Intersectional vulnerabilities

LGBTI people in the Nordic countries who belong to multiple minority groups face heightened vulnerability due to overlapping discrimination, such as racism, homophobia, and ableism, which often leads to violence, economic insecurity, and poor mental health. Particularly at risk are groups like LGBTI asylum seekers and Sámi LGBTI individuals, who encounter structural barriers, invisibility, and multiple minority stress. Further insights, including challenges, solutions, and outcomes from Nordic co-operation projects, can be found in the publication ["Standing out even in groups to which you belong" Conditions and co-operation for LGBTI people who belong to multiple minority groups in the Nordic countries](#)

Sexual and gender minorities in perinatal care

Another vulnerable group identified in the literature includes individuals belonging to LGBTQ minorities. People from sexual and gender minorities have reported higher levels of low mood and depression compared to the general population, and they often experience anxiety and stress related to fertility processes and gender identity (Kirubarajan et al., 2022).

LGBTQ individuals report multiple forms of exclusion, both within perinatal services and, at times, within their own LGBTQ communities. These experiences can exacerbate the challenges during the perinatal period and create LGBTQ barriers to seeking help. In addition to mental health concerns, LGBTQ individuals report difficulties accessing appropriate services and information, a lack of recognition of gender identity in health care, contradictory birth experiences and experiences of discrimination in perinatal care (Permezal et al., 2023). Same-sex parents have identified discrimination and homophobic attitudes in healthcare services (Adams et al., 2025).

These findings highlight the need to develop perinatal services that are genuinely equal and sensitive to sexual and gender minorities. Services must recognise diverse family and identity backgrounds, provide a safe space for sharing experiences and ensure that staff have the necessary competence to engage with LGBTQ individuals respectfully and without prejudice.

Findings from the psychosocial intervention review for the culture and values domain

The intervention portal mapping identified a significant gap in Nordic interventions: gender, language and cultural minorities were poorly addressed, despite being recognized as risk groups. Only one international intervention was evaluated as effective and explicitly targeted a cultural minority group (Family Spirit®, a culturally tailored home-visiting programme for Native American communities, designed to promote optimal health and well-being for parents and their children). None of these interventions aimed at refugee, asylum-seeking or immigrant mothers or parents were found to be assessed as effective or even at a promising level. Similarly, there were no interventions specifically designed for LGBTQ families.

Table 12. Identified effective psychosocial interventions in the psychosocial interventions in the Culture and values domain.

	Intervention	Culture & values*		
		Immigrants, refugees, and asylum seekers	Sexual and gender minorities	Other minorities
UK/USA	Family Spirit®			X

Targeted at risk groups

**) Reminder: The selected portals only include interventions that have been evaluated within the assessment systems according to specific criteria, with an emphasis on research-based evidence of effectiveness. The interventions that demonstrate at least some research-based evidence of effectiveness are presented. The assessment systems operate dynamically, and the information presented in this report may therefore be updated quite rapidly. Regular monitoring of the relevant portals of these assessment systems is recommended.*

The checkmarks reflect what was indicated as the primary target group or objective in the portal descriptions of each intervention. Many interventions have multiple secondary goals and effects, so additional checkmarks could apply in practice.

There is a need for more interventions in the Nordic context. While some programmes have incorporated cultural background factors and acknowledged the importance of culturally sensitive approaches, systematic integration of these considerations into intervention design and delivery remains limited.

In the literature, several studies highlighted the need for culturally responsive maternity care, as well as attention to the continuity of care (for example Aiyar et al., 2023). Having the same care providers during pregnancy, birth and postpartum helps to build trust, improves communication and reduces the need for women to repeatedly share traumatic histories (Aiyar et al., 2023). Fair et al. (2020) have reported a need to increase the use of interpreter services and offer clear information as well as provide training in culturally competent and trauma-informed care. Postnatal practices also vary across cultures, influencing well-being and care experiences, and region-specific care approaches are necessary to ensure equitable, culturally sensitive maternity services (Aiyar et al., 2023).

In the study of Balaam, Kingdon & Haith-Cooper (2022), the interventions that were most valued by women themselves were those using a community-based befriending/peer support approach, as these provided the most holistic approach to addressing their needs. The impacts of the interventions were divided into five themes: alleviation of being alone, safety and trust, practical knowledge and learning, being cared for and emotional support, and increased confidence in and beyond the intervention.

• FACTS & INSIGHTS •



Unrecognized perspectives of the Sámi people

The Sámi are the only recognized indigenous people in the European Union. Sápmi, the cultural region traditionally inhabited by the Sámi people, is assimilated by and spans parts of Norway, Sweden, Finland and Russian. The Sámi are the indigenous people inhabiting Sápmi, which is a cultural and geographic area significant to the Sámi people. It should be noted that a significant proportion of the Sámi population lives outside the Sámi homeland area (Saami council). No studies on Sámi families were found in the literature search for this report.

Sivertesen et al. (2025) identified a similar gap in their scoping review on indigenous women's dissatisfaction with birthing experiences. Research on the birthing experiences of the Sámi people is almost completely lacking. The authors note that this research gap perpetuates the invisibility of the Sámi in healthcare structures and prevents the development of culturally safe childbirth services, and there is therefore an urgent need for research based on the Sámi's own perspectives in the healthcare systems of Norway, Sweden and Finland (Sivertesen et al., 2025).

Key observations from Nordic expert discussions concerning the culture and values domain

Experts stressed the importance of recognising family diversity in service provision. Parents with limited literacy or language skills require tailored communication, interpretation services, additional time and trauma-informed approaches. Immigrant families are diverse, and services must reflect this variability.

Trauma-, migration- and bereavement-informed care remains insufficiently embedded in routine practice, including after stillbirth or neonatal loss. Experts noted that the focus on trauma can sometimes overshadow other significant experiences, such as cultural dislocation, value differences, helplessness and a lack of belonging. Large families may require different support approaches compared to first-time parents. While the role of fathers and other caregivers is increasingly recognised, inclusive and targeted support for them must be strengthened.

Provision and experience of care



Image: iStock

This chapter addresses, in line with the domain of provision and experience of care of the parental well-being framework, the importance and current state of supporting access to high-quality and person-centred care. As pregnancy and childbirth represent a transitional life phase, the provision and experience of care received is essential for the family's well-being. The subdomains describe the importance of access to respectful, intercultural, high-quality maternal and newborn care, and of the experience of that care, in shaping well-being. Satisfaction with maternal health services is closely linked to respectful, culturally sensitive and high-quality care, which the framework emphasises as essential for maternal and newborn well-being (Le Lez et al., 2025).

Findings from the literature related to the provision and experiences of care emerged when discussing all other areas of well-being. In this subsection, we focus on factors that influence the utilisation of care and the impact of positive care experiences. In addition to mental health problems, minority groups and parents in challenging socioeconomic situations, parents with disabilities are also at risk of underutilising services, as pointed out in the chapters *Culture and values, social inequalities* and *Disabilities challenge parental autonomy and increase the risk of underutilisation of perinatal services*. The chapter *Experiences during pregnancy and childbirth cause psychological stress and pose a risk to parental mental health* presents further on the associations of pregnancy and birth-related experiences of care and their impact.

Barriers to seeking help or receiving treatment

Socioeconomic factors and unequal use of perinatal services

According to McCarthy and colleagues (2021), women experience perinatal anxiety and stress due to poor healthcare experiences, including perceived low-quality care or a lack of access to services. Feijen-De Jong et al. (2011) found that a large number of other variables are associated with the late initiation or inadequate use of prenatal care. Even as independent factors, they form a picture of the inequities associated with access to healthcare during pregnancy and highlight the need to consider the needs of deprived women and the need for tailored interventions for them (Feijen-De Jong et al., 2011).

Weaker perinatal outcomes among women with a lower socioeconomic status may be linked to their lower utilisation of healthcare services (Grand-Guillaume-Perrenoud et al., 2022). Risk factors associated with non-utilisation of perinatal services appear to associate with women's socioeconomic status (low maternal age, low educational level, non-marital status, ethnic minority and living in a deprived neighbourhood) as well as reproductive health-related factors (planned place of delivery, high parity, prior premature birth, obstetric risk factors, late recognition of pregnancy) (Feijen-De Jong et al., 2011).

Family beliefs about mental illness, such as perception that emotional problems should stay within the family, and the presence of family may also prevent women from disclosing mental health symptoms (Bina et al., 2024; Webb et al., 2021). Women with mental health challenges can avoid seeking help due the fear of their children being removed from them or being judged in their motherhood or labelled for their issues (Watson et al., 2019).

Stigma, fears and beliefs related to mental health as barriers to seeking help

When a parent experiences mental health challenges, several factors can create barriers to seeking help or delay access to services. These include fragmented service pathways, limited resources, negative attitudes toward mental health diagnoses, difficulties in recognising one's own symptoms and concerns about how others may react (Newman et al., 2019; Smith et al., 2019). Westgate, Manchan and Maxwell (2023) emphasised that mothers experiencing perinatal depression put their infant first when making decisions about their own health needs and treatment (Westgate et al., 2023). For mothers with obsessive-compulsive disorder (OCD), barriers to receiving help have included the healthcare system's limited ability to recognise OCD and difficulties in using medication due to concerns about potential effects on the infant's health (Burton et al., 2022).

More broadly, help-seeking is shaped by stigma, self-stigma, previous negative encounters with healthcare, fear of being judged or labelled, fear of being stigmatised and being seen as unfit mothers, fear of losing custody and beliefs that one should cope alone. A lack of knowledge about perinatal mental health, uncertainty about available services, practical challenges such as childcare or transportation and mistrust toward professionals all further hinder access to care (Bina et al., 2024; Jones, 2019). Similar experiences have also been reported among fathers, contributing to weaker preparation for fatherhood and, in turn, increased stress and reduced confidence in their parenting role (Venning et al., 2021; White & Jarvis, 2024).

Involvement in child protection processes – or even the fear of such involvement – can reduce parents' willingness to engage with healthcare services. Parents report experiencing stigmatising attitudes from healthcare professionals and navigating fragmented service systems, which can lead to inadequate information sharing between agencies. For those already involved in child protection, past traumatic experiences may intensify the stress of the process, and the potential removal of a child can trigger earlier trauma. More broadly, negative perceptions of child protection services, particularly fears related to child removal, can erode trust in professionals and further reduce parents' openness to sharing information (de Backer et al., 2024; Burrow et al., 2024; Burton et al., 2022).

Barriers to services faced by minorities

Barriers to seeking help have particularly been recognised among people with immigrant backgrounds (e.g., Firth et al., 2022), as well as among LGBTQ minorities (Kirubarajan et al., 2022). Immigrants face various challenges related to the quality and availability of services in a new country (e.g., Dela Cruz et al., 2023). Asylum seekers and refugee women are likely to face more barriers to seeking help than the general population, exacerbating inequality in healthcare (Firth et al., 2022).

Despite the identified risk factors, women with immigrant backgrounds often receive perinatal care later than recommended and they also have poorer access to health services (Almeida et al., 2013; Saunders et al., 2023). An unfamiliar and fragmented healthcare system, negative interaction experiences and communication difficulties with healthcare professionals, and culturally insensitive services weaken the possibility for sufficient support and successful interaction (Fair et al., 2020; Kasper et al., 2022; Pangas et al., 2019; Watson et al., 2019). Language barriers can affect women's health literacy and prevent potentially informed choice and consent for healthcare (Fair et al., 2020). Aiyar et al. (2023) identified regional differences in obstetric outcomes, and refugee and asylum-seeking women have reported both a lack of interpreter support and cultural incompatibility in perinatal care. Immigrant fathers have similarly described cultural challenges and mismatches in services (Vo et al., 2024), which can reduce the overall quality of care (da Conceição et al., 2015). Some men also reported feelings of shame related to attending appointments, being present during childbirth and participating in infant care when these roles were not considered culturally normative (Aiyar et al., 2023).

Attitudes and stigma related to mental health, together with limited information on mental health, may prevent individuals with immigrant backgrounds from seeking help and reduce their possibilities of receiving sufficient support (Almeida et al., 2024; Firth et al., 2022; Heer et al., 2024; Watson et al., 2019). According to Firth et al. (2022), in addition to a limited understanding of the concept of depression, parents' belief in self-care and the contradictory advice received from healthcare providers and family members can hinder help-seeking for perinatal depression. Mental health problems such as depression may also be culturally unacceptable, as they can be perceived as a sign of weakness or as something that prevents women from fulfilling their expected roles in society. These perceptions can contribute to emotional isolation, feelings of being misunderstood and even separation from family and a lack of social support (Watson et al., 2019). The cultural background also shapes parents' preferences and beliefs, including their expectations regarding the need for medical care during the perinatal period (Fair et al., 2020).

Disabilities and parenthood

Women with intellectual disabilities report limited decision-making power in perinatal services, a lack of information about pregnancy, difficulties understanding information, feelings of unsuitability for motherhood and fears of child removal. These challenges may contribute to disengagement from care (Homeyard et al., 2016). There is also a need to explore interventions that best support parenting skills for parents with intellectual

disabilities (Coren et al., 2018). Mothers with physical disabilities or functional limitations report more severe depressive symptoms than persons without disabilities. The association between physical disability and postpartum depression is robust (Pington & Goodman, 2025).

Maternal disability is a risk factor for underutilisation of perinatal services, especially when additional challenges such as intimate partner violence exist. Physical barriers such as mobility challenges and inadequate accessibility, along with financial constraints, create external obstacles. Insufficient staff training on recognising domestic abuse and ensuring accessibility limits comprehensive support for parents with disabilities. Psychological factors, including stigma and the perception of pregnancy as 'high-risk', further reduce women's perceived need to seek care (Breckenridge et al., 2014).

Professional expertise and shortcomings in the service structure

Professionals' limited knowledge, skills and confidence in addressing paternal perinatal mental health reduce the acceptability of assessments and create concerns about causing offense, managing safety and balancing both parents' needs. Professionals highlighted gaps in training, a lack of clear guidelines and the absence of standardised tools or referral pathways as major barriers. Introducing routine screening and structured approaches was seen as essential to normalise paternal mental health support and improve inclusion (Darwin et al., 2021).

Mothers with depression value individualised, culturally sensitive care and emotional validation, which is frequently lacking in current services. Peer support and accessible treatment models are essential to reduce isolation and meet women's specific needs. They emphasised the importance of having their role as a mother validated and understood, as this helped normalise their experiences. Breastfeeding was identified as a significant source of stress, leading to a clear need for targeted support in this area (Westgate et al., 2023).

Fathers often respond positively when included in screening, reporting little distress and expressing appreciation for being acknowledged. Organisational culture and service remit strongly influenced attitudes toward fathers' mental health. Services were largely mother-focused, with routines and communication directed at mothers, and some professionals not viewing fathers as equal caregivers. Limited contact opportunities, time pressures and workload constraints further hindered engagement and screening. Fathers often perceived maternity and child health services as primarily for women, preferring to discuss mental health with general practitioners (Darwin et al., 2021).

Due to cultural differences, expectations and practices related to maternal health care may not match between women and professionals. It is essential to recognise that the needs of immigrant women extend well beyond pregnancy. Increasing trauma awareness, cultural sensitivity and stronger interpretation services have been identified as an important area for development in perinatal services for parents with immigrant backgrounds (Fair et al., 2020). Pangas et al. (2019) studied experiences of maternity care among refugee women and observed that continuity, culturally appropriate care and healthcare relationships played an important role in the positive experiences of women.

The attitudes of healthcare providers impact on women's access to perinatal mental health support (Watson et al., 2019).

Impact of positive experiences with care

Positively experienced care during the perinatal period has been identified as a significant protective factor leading to better psychosocial well-being among mothers. Ways to remove barriers to seeking help and strengthen support in perinatal services were identified in the literature.

The importance of positive care experiences

Strong systems and positive environments foster positive interactions between women and healthcare providers (Miyachi et al., 2022). Person- and family-centred services that take into account the needs of all family members were associated with increased trust, commitment and continuity of care (Billings et al., 2024; Van den Ber, 2020). Such approaches support help-seeking and promote resilience, and they may reduce delays in care and social isolation when parents are experiencing mental illness (Burton et al., 2022; Harries et al., 2023; Ramsauer & Achtergar, 2018). Psychoeducation and community-based support further increase awareness and facilitate access to help, especially when a lack of information may prevent adequate support (Firth et al., 2022). It is essential that professionals can respond to women's needs in an open, non-judgmental and genuinely motivated manner. Care should be grounded in a trusting relationship between women and healthcare professionals, delivered flexibly and continuously, and organised in a patient-centred way. In addition, women should have genuine opportunities to choose between different treatment options offered to them (Webb et al., 2021).

Positive treatment experiences protect mental health

Positive treatment experiences strengthen trust and protect mental health (Bell et al., 2016). Good communication and the opportunity to participate in care decisions in childbirth increase parental well-being and protect against depression (Bell & Andersson, 2016; Silva-Fernandez et al., 2023). Empathetic communication and postpartum support reduce the risk of PTSD and support both parents (Shorey & Chan, 2020). In addition, fathers' involvement and positive experiences of care have been shown to reinforce the beneficial psychological effects of parenthood (Arnold et al., 2025; Palioura et al., 2023).

Literature addressing the capacity of healthcare services to support patients in challenging situations consistently highlights the importance of patient-centred and sensitive care. Van den Berg and colleagues (2018) reported that following miscarriage, parents have reported that they valued patient-centred health care highly. They hoped to be recognised as individuals undergoing a significant life event, rather than being treated solely as a medical case. Sensitive, empathetic and emotionally validating care has been shown to support parents after stillbirth and the loss of a child (Peters et al., 2015). Empathetic grief support and opportunities for creating memories in the context of loss can prevent long-term trauma and facilitate recovery (Westby et al., 2021), while

emotionally validating care similarly helps parents following miscarriage and child loss (Peters et al., 2015).

Trauma-informed care has been associated with prevention of PTSD and negative birth experiences (Ayers et al., 2016; Givrad et al., 2025, Watson et al., 2019). It also supports continuity of care and prevents fragmentation (Newman et al., 2019). A high-quality therapeutic relationship and continuity supports parents with a history of trauma, ACEs and PTSD (Atzl et al., 2019; Chamberlain et al., 2019). A trusting relationship with healthcare staff increases feelings of security and helps parents with prior adverse experiences to cope with challenging situations (Chamberlain et al., 2019).

Considering the diversity of families

Accessible services and appropriate staff training ensure that parents with mobility limitations or other special needs receive the support they need (Breckenridge et al., 2014). In addition, father-friendly services and peer support reduce feelings of exclusion and support the well-being of the whole family (Baldwin et al., 2018; Shorey & Chan, 2020). Equitable and sensitive perinatal services for sexual and gender minorities reduce stress and marginalisation (Kirubarajan et al., 2022).

The literature on perinatal care among refugee and immigrant families further underscores the importance of continuity, cultural sensitivity and relational aspects of care. In a study on refugee women's experiences of maternity care, continuity, culturally appropriate care and supportive relationships with healthcare professionals were central to positive care experiences (Pangas et al., 2019). The accessibility and sensitivity of perinatal services are thus key to ensuring equality and inclusion. Culturally sensitive care and adequate access to information help prevent inequities and strengthen inclusion, particularly among families with an immigrant background (Fair et al., 2020; Kasper et al., 2022). Such approaches also prevent treatment discontinuation and strengthen trust in services (Pangas et al., 2020).

Culturally sensitive practices and increased knowledge of mental health can reduce stigma-related barriers to care (Almeida et al., 2024; Firth et al., 2022). Empathetic and non-judgmental care protects dignity and reduces stigma-related barriers to help-seeking, including fears related to child removal or detention (Almeida et al., 2024; Bina et al., 2024; Watson et al., 2019). Improving accessibility, providing interpreter services and ensuring cultural compatibility have been shown to facilitate access to care for immigrant families and refugees (Almeida et al., 2013; Saunders et al., 2023). Interpretation services and the use of plain-language materials support informed decision-making and reduce misunderstandings (Fair et al., 2020; Homeyard et al., 2016). Clear communication and confidential, trustworthy services are particularly important in contexts of legal uncertainty, such as the asylum process (Balaam et al., 2022).

Key observations from Nordic expert discussions concerning the provision and experiences of care domain

Experts identified gaps in the service system, such as fragmented care pathways and documentation, as well as a lack of evidence and substantial training needs, particularly when parents are experiencing mental health issues. Expert discussions highlighted the critical need to harmonise and clarify care pathways in situations where a parent in the family has mental health challenges and/or social risk factors. Addressing these challenges in policy and service design is central to ensuring accessible, accurate information and maintaining confidence in health and social care systems. Strengthening and ensuring universal services was seen as a prerequisite for addressing broader system gaps. Despite individual risk factors being identified, there are still no validated models for assessing cumulative family risk which perpetuate reactive rather than preventive service structures. The complex needs of families with cumulative risk factors may not be fully addressed by some interventions, which may be too general or insufficiently intensive.

Regional inequalities and culture- or language-specific needs require greater attention, and culturally sensitive services that utilize interpretation must be integrated into all relevant settings. Minority and diverse families should be taken into account when developing services and assessing their suitability.

Parents are feeling increasingly overwhelmed by the demands of parenting and the current insecurity surrounding families. Anxiety levels among highly educated mothers are rising. Misinformation, information overload and declining trust among young people pose emerging societal risks and may lead to a higher level of polarisation. New guidelines, such as those on-screen time usage in families, require effective implementation. High daycare attendance rates emphasise the need to invest in quality early childhood education and to recognise this as both a risk and a protective factor.

Nordic experts also identified many implementation barriers for:

- A lack of specialised perinatal teams and mother–baby units and long waiting times for secondary services exacerbate the situation.
- Service discontinuities early in pregnancy. Experts recognised that services are often interrupted at the beginning of pregnancy when existing programs, such as substance abuse services and adult psychiatry, withdraw, citing a lack of expertise.
- Weak integration and coordination between professional teams and services.
- Inconsistent documentation, undermining the continuity of care.
- The lack of a tiered care model that would guide the placement of interventions from promotion to prevention and treatment.
- Variation in guideline implementation for preventive programs and guidelines.
- Limited assessment of the partner's mental health. Assessing a partner's mental health remains at the recommendation level, even though research evidence of bidirectional effects is growing.

- Under-use of evidence-based interventions such as iCBT or CBT and structured peer support.
- Limited evaluation of intervention effectiveness in the Nordic context.
- The absence of national, unified training programmes to cover all professionals in care and support pathways.

Summary of the findings



Image: Asaf Klinger / Imagebank.sweden.se

This report synthesises evidence from three complementary data sources:

1. a structured literature review of meta-analyses and systematic reviews published since 2010,
2. an intervention mapping of psychosocial programmes evaluated in Nordic and international evidence portals, and
3. insights from Nordic expert discussions conducted in 2025–2026.

All results were organised according to the WHO maternal well-being framework, which conceptualises perinatal psychosocial well-being across six interlinked domains. The framework's domains provided a broad and multidomainal organising structure, making visible a wider range of risk and protective factors than narrower clinical definitions would allow.

The findings are consistent with existing literature in showing that perinatal psychosocial well-being is shaped by an accumulation of interacting factors spanning health, relationships, safety, autonomy, culture and the quality of care, and that these factors rarely operate in isolation. Families facing the greatest vulnerabilities tend to encounter multiple risk factors simultaneously, while adequate support may mitigate them.

Scope of the evidence base

Most of the reviewed literature primarily targeted mothers' perspectives. While some literature also addressed the experiences of both parents, and some exclusively focused on fathers, the mother's viewpoint remained a central focus in many of the articles. Although the research literature uses terminology that primarily refers to mothers and fathers or to women and men, families and parenthood in society also include other constellations. This broader understanding should be considered when interpreting the results of this review.

Altogether, 33% of the reviewed articles primarily focused on parents' mental health and investigated themes related to mental health issues, such as depression, PTSD and perinatal psychological disorders, as well as social challenges, such as the mental health issues of migrants. Furthermore, 54% of the articles addressed mental health either as an

outcome variable or as a mediating/moderating factor, indicating that the topic has been addressed in international research. Although no separate literature searches were conducted specifically on interventions, some effectiveness studies still emerged through the literature search carried out.

Research from the child's perspective remains limited, despite the frequent emphasis on child well-being as a central objective. Although the aim is equally to ensure the child's needs, health and safe development, services and interventions mostly concentrate on mothers or parents.

In this report, only meta-analyses and systematic reviews were included, which limited the number of Nordic studies. Altogether, 35% of the investigated articles included studies from the Nordic region, and the results aligned with other high-income countries included.

Limitations of the report

This review has several limitations. Firstly, it relies on a broad but necessarily selective evidence base compiled within a short time frame, which may result in some analyses being underdeveloped. Several important topics, such as prematurity, low birth weight, feeding difficulties, adolescent pregnancies and the impact of the pandemic, were excluded due to the scope and the required specialised expertise. Focusing on English-language systematic reviews and meta-analyses limited the inclusion of Nordic evidence, which may reduce regional applicability. The search strategy only partially captured literature on early interaction, attachment and bonding, and despite supplementation later in the process, the evidence remains fragmented. The review is also constrained by its parent-centred perspective, the lack of experiential input from families and the exclusion of broader environmental and developmental factors affecting infants. Finally, the assessment of psychosocial interventions is limited by variability across evaluation systems, the narrow set of portals searched and the fact that information on which interventions are currently implemented in Nordic contexts is incomplete. A more detailed list of limitations is provided; please see Appendix 6.

Identified evidence gaps

The identified research focused on depression, leaving other conditions less understood. Many under-researched populations merit attention. The mental health of fathers and partners is interlinked with that of mothers, but is often studied far less, and cultural/ethnic minorities or refugee families who face unique stressors and are underrepresented in research samples were noted as gaps. There is a significant evidence gap regarding knowledge related to the psychosocial well-being of Sámi people during the perinatal period. Cumulative risk factors and the role of social inequalities should be more broadly investigated. Table 13 summarises the identified gaps in evidence.

Methodologically, there is a call for the use of standardised measures (for issues such as pregnancy anxiety or bonding disorders) and the inclusion of diverse data sources. Longitudinal and robust designs are needed to investigate long-term outcomes for children and their families.

Table 13. Identified evidence gaps.

The literature demonstrated limited evidence on:	Additional evidence gaps mentioned in Nordic expert discussions
<ul style="list-style-type: none"> • infant long-term outcomes and experiences • paternal mental health • psychosocial well-being and experiences of neurodivergent parents • eating disorders, OCD and psychosis in the perinatal period • perinatal loss, negative birth experiences and birth trauma • parental complex post-traumatic disorder • single parents and non-traditional family constellations • co-parenting experiences • loneliness and social isolation • the role of grandparenting • cumulative and intersecting risks (social, health, environmental) • influence of climate change • psychosocial well-being and experiences of Sámi, LGBTQ+ and migrant families • cumulative and intersecting risks (social, health, environmental) • protective factors • long-term follow-up outcomes 	<ul style="list-style-type: none"> • physical health problems among mothers • maternal suicidality risk • neurobiological or hormonal vulnerabilities • anxiety and stress during pregnancy and postpartum (especially among highly educated parents) • experienced loneliness • relationship strain and intimate partner violence • psychosocial well-being and experiences of single parents • maternity leave gaps • psychosocial well-being and experiences of migrant and immigrant families • immigrant needs • impacts of digitalisation and screen time on parental and infant well-being and the need for screen time-related interventions • poverty in infant families • housing difficulties, unemployment • mis- and dis-information • growing scepticism toward institutions and polarisation in society • climate change impacts on maternal, paternal or infant health • effects of wars and global injustice on psychosocial well-being • cumulative risk follow-up systems

Key risk and protective factors during the perinatal period

The findings of this report suggest that the six interconnected domains provided by the WHO maternal well-being framework (Le Lez et al., 2025) of health and nutrition, relationships and connectedness, security, safety and a sustainable environment, autonomy, agency and resilience in parenting, culture and values, and the provision and experience of care together shape the well-being of parents and children.

For instance, parental mental health issues, social difficulties such as loneliness, and financial strain may impact both parent–child interactions and the wider family environment. Addressing these issues usually necessitates a coordinated, multi-level approach across services and support systems.

The findings also highlight areas where support structures could be improved, such as meeting the needs of culturally and linguistically diverse families, engaging fathers, responding to trauma and family violence and addressing broader structural inequalities. Eight central risk factors were identified across the literature, which are described in the

following section. These summaries are based on the evidence presented in the preceding sections.

These factors have been highlighted in the literature, and interventions aimed at enhancing them should play an important role in strategies that seek to create optimal conditions for psychosocial well-being during the perinatal period.

Mental health

The review of the literature revealed that parental mental health problems are key risk factors for the well-being of both parents and children. Perinatal depression and anxiety disorders are the most common perinatal mental health disorders and have strong comorbidity. They are associated with a higher risk of adverse outcomes for children, including preterm birth, low birth weight, regulatory and sleep problems and interaction disorders, as well as and later developmental, behavioural and mental health problems. In addition to these, the literature review identified several other disorders, such as PTSD, obsessive–compulsive disorder, panic disorder, eating disorders and serious mental health illnesses, that are clearly linked to perinatal well-being but are less commonly identified in healthcare settings than depression.

Perinatal mental health challenges rarely arise from a single cause; rather, they reflect a complex interplay of individual, relational and structural factors that often overlap and reinforce one another. Risk factors often accumulate, and a history of mental health disorders, ACE experiences, intimate partner violence, socioeconomic stress, perinatal losses and somatic morbidity significantly increase the risk of depression, anxiety and trauma symptoms. These interconnected factors influence not only parental mental health but also early attachment, child development and family stability.

Fathers also experience perinatal mental health symptoms, yet their well-being is rarely monitored. Some support and interventions are offered to both parents, but most of them only mention mothers as the target group.

Protective factors for mental health include the support of a good partnership and a close circle of friends and family. Moreover, individuals' internal resources, such as resilience, optimism and reflective capacity, protect against depression and anxiety while supporting secure attachment and family stability. In addition, financial and housing security, adequate sleep, physical health and low-threshold psychological support may promote resilience and safeguard mental health for both parents and children. Adequate early identification, evidence-based treatment, a sensitive and trauma-informed therapeutic relationship, as well as support received by fathers and their good mental health were identified as factors that can support the well-being of the whole family.

→ **Read more:** [Importance of good mental health during the perinatal period](#)

Perinatal trauma and loss

Loss and traumatic experiences, such as complications in pregnancy and negative childbirth experiences, perinatal loss and previous traumatic events, significantly increase the risk of depression, anxiety and PTSD in parents. Negative experiences or a perceived lack of control during childbirth are associated with poorer mental well-being.

Protective factors that can reduce the risk of psychological symptoms included social support, compassionate encounters with healthcare personnel and the opportunity to participate in decision-making during childbirth and care.

→ **Read more:** [Perinatal trauma, loss and the effects of birth experiences on parental well-being](#)

Transition to parenthood and the experience of competence

The literature review revealed that transitioning to parenthood is a psychologically stressful transition phase in which expectations, norms and the personal life history have a strong impact on the experience of competence. For mothers, studies have described how unrealistic parenting expectations, body image pressures, breastfeeding pressures and social comparison increase anxiety, depressive symptoms and feelings of inadequacy. Fathers, on the other hand, repeatedly describe feelings of exclusion, a lack of information and insufficient consideration of their experiences, which weakens their sense of competence and increases stress. The well-being and perceived competence of both parents are linked to the early development of the child and parent–child interaction.

Protective factors include the experience of being heard, being able to participate in decision-making regarding pregnancy, childbirth and early care, and receiving understandable information and support. Psychological resilience, effective coping strategies, positive self-esteem and realistic expectations of parenthood are associated with better adaptation. Interventions that support resilience, stress management, peer support and comprehensive support for living conditions (finances, housing) appear to be protective factors, especially in socioeconomically vulnerable groups.

→ **Read more:** [Autonomy, agency and resilience in parenting](#)

Social relationships and support

The review of the literature demonstrated that social relationships and informal support networks are among the strongest protective factors during the perinatal period. Emotional and practical support from a partner, high-quality couple functioning and cooperative co-parenting reduce the risk of depression, anxiety and stress in both mothers and fathers. Conversely, relationship conflict, single parenthood and loneliness are consistently linked with poorer mental-health outcomes. Loneliness is a particularly salient risk factor and is associated with increased psychological distress, lower parenting confidence and reduced help-seeking.

Protective factors include natural communities, an extended family and supportive close relationships, which can buffer stress, reduce isolation and strengthen parents' everyday coping. Group-based interventions and peer-support elements enhance social connectedness and reduce stigma, and they should be promoted in both universal and targeted formats.

→ **Read more:** [Social supports protects the well-being on the family](#)

Parent–infant relationship

The review of the literature revealed that early parent–infant interaction, bonding and the development of secure attachment are central to the child's emotional, social and self-regulation development. Parental mental health difficulties and illnesses, fatigue, trauma symptoms, neurodevelopmental conditions and substance-use problems are associated with reduced sensitivity to infant cues and more fragmented interaction. Specific circumstances such as prematurity, neonatal intensive care admission, perinatal loss or birth-related PTSD may delay bonding and increase vulnerability in the early relationship.

Risk factors often overlap, and parental depression or anxiety, previous trauma, chronic stress and a lack of social support can further weaken the quality of early interaction. These factors increase the likelihood of difficulties in regulation, feeding, sleep and early developmental trajectories.

Protective factors include sensitive, consistent and responsive caregiving, which can act as strong buffers, even when parents experience psychological symptoms. Interventions focusing on parent–child interaction (for example, video-based and home-visiting models) strengthen parental sensitivity and mentalisation, reduce interactional stress and support secure attachment. Positive shared moments, skin-to-skin care and structured observation of infant behaviour further reinforce bonding and resilience in both the parent and child.

→ **Read more:** [Factors relating to early parent-infant relationship](#)

Migrant and minority families

Migrant and minority families often face cumulative stressors during the perinatal period. Language barriers, discrimination and pre-migration trauma, among other risks, increase the risk of perinatal depression, anxiety and trauma-related symptoms. Sexual and gender minority parents may experience stigma, limited service accessibility and non-inclusive care, which further heighten vulnerability.

Protective factors highlight culturally sensitive and respectful care, access to multilingual information, the availability of interpreting services and opportunities to maintain cultural identity and community ties. Protective factors also include strong family and community networks, maintaining one's own traditions, peer support and spiritual communities, which can significantly support well-being and coping during the perinatal period. Alongside these, culturally sensitive service guidance is important so that parents can make use of both their own cultural resources and professional support. Inclusive service practices, culturally adapted materials and collaboration with community organisations help strengthen parental well-being. However, the intervention mapping revealed a clear gap: no culturally adapted perinatal mental health intervention programmes with demonstrated effectiveness were identified in the Nordic countries, despite the known benefits of culturally sensitive approaches.

→ **Read more:** [Culture and values](#)

Social inequalities and cumulative risks

The literature review demonstrated that many families experience interconnected and mutually reinforcing risk factors. Adverse childhood experiences, poverty, unemployment, housing instability and neighbourhood disadvantage are social disadvantages that may be linked with parental mental health or substance-use problems and cumulate adversity. They increase the likelihood of perinatal distress and adverse outcomes for children. Children in families with a cumulative risk are more likely to experience regulatory, developmental and behavioural difficulties. Parents with such histories may also have less informal support and a reduced help-seeking ability. Intimate partner violence during pregnancy or the postpartum period is a significant risk factor for family well-being, safety and child development. It undermines the parent's sense of security and increases the likelihood of depression and trauma symptoms. A safe, non-violent home environment is therefore a key protective factor for the well-being of both parents and children, and this is why the early identification of at-risk families and the provision of support are particularly important.

Protective factors include positive early experiences, safe and supportive relationships, stable living conditions, reliable social protection and opportunities to address trauma within a trustworthy care relationship. These can mitigate the effects of cumulative risk. Effective programmes identified in intervention mapping combine parental support, child-centred interventions and practical assistance to strengthen family stability and long-term resilience.

→ **Read more:** [Security, safety and sustainable environment](#)

Role of the service system

The service system can either protect or exacerbate risks. Fragmented pathways, inconsistent screening and culturally insensitive practices delay identification, whereas trauma-informed, coordinated and accessible services support early detection and engagement.

Conversely, universal and accessible services, regular home-visiting, continuity of care and high-quality therapeutic relationships are protective. Trauma-informed and culturally sensitive care, clear care pathways and coordinated multi-professional collaboration improve early identification and strengthen parental trust in services.

Protective factors include early detection and evidence-based treatment for risks, high-quality therapeutic alliances and integrated service structures. These can provide important foundations for safe, equitable and timely support. This report, combining reviews of the literature, intervention portals and Nordic expert discussions, demonstrates that while the improvement of professional competence is often supported, stepped-care models (see Figure 4) and specialised units remain unevenly available in the Nordic countries.

Key protective factors at different support levels are presented in Figure 3.

→ [Read more: Provision and experience of care](#)

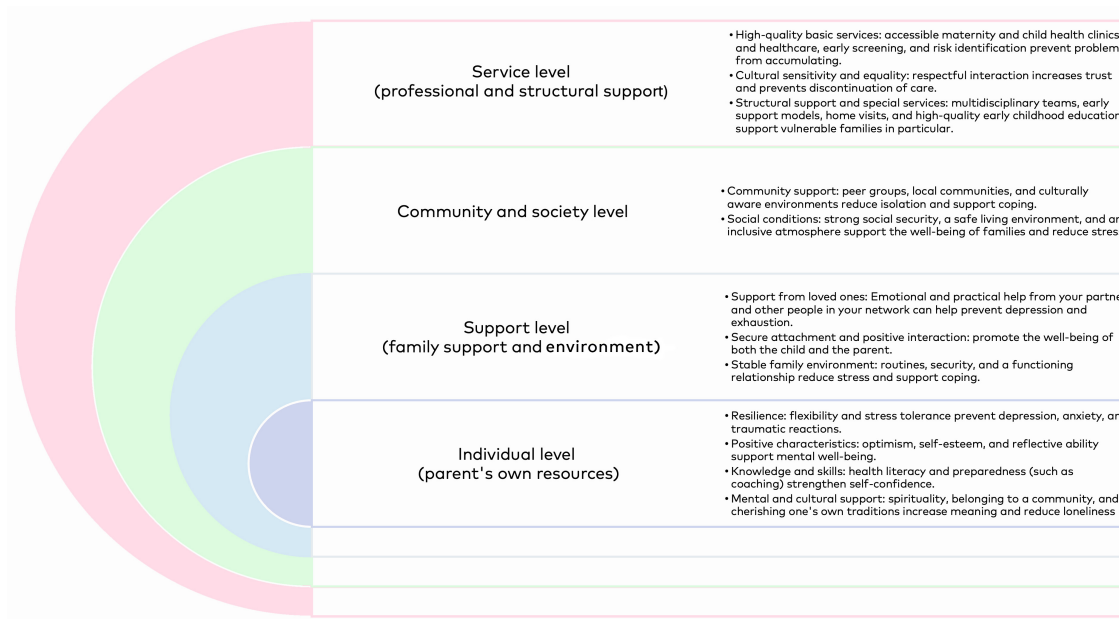


Figure 3. Identified protective factors at different levels.

Key findings from psychosocial intervention mapping

The aim of the psychosocial intervention mapping is to examine how well the interventions with graded effectiveness meet the identified risk factors and needs for psychosocial support and where the biggest gaps lie. Although this report focuses on psychosocial interventions with research evidence that has been evaluated in the open-source intervention information portals, it should be noted that this review does not provide a complete picture of the care and support available. For example, specialised care meets some of the identified risks and the care is beyond psychosocial support offered in intervention programmes (for example, psychotic disorders or child developmental challenges are treated in specialised care).

A total of 28 structured interventions with evaluated effectiveness in Nordic context were identified in the intervention information portal mapping. They included universal (8 interventions), risk group-targeted (13 interventions) and therapeutic (7) interventions. In the analysis phase, we categorized the interventions covering the perinatal period into WHO-based domains, which proved challenging and at times somewhat artificial due to the complexity of the phenomena and their overlapping nature. Table 14 presents all the interventions identified in the Nordic intervention portals reviewed (not additional international portal findings included).

Table 14. Identified psychosocial intervention with Nordic effectiveness grading.

Intervention	Health & Nutrition		Mental Health				Relationships and connectedness	Security, safety & a sustainable environment					Parental autonomy, agency & resilience		
	Child's traumatic or abusive experiences or the risk of them	Low weight/preterm babies	Depression	Fear of childbirth	Anxiety disorders	Stress, exhaustion and tiredness	Parent – child bonding, attachment and early interaction challenges	Experiences of disasters	Families at socio-economic risk	Intimate partner violence	Dis-advantaged or deprived environments	Multiple risks	Low resilience and ability to cope	Young mothers	Transition to parent-hood
ICDP							X								X
Incredible Years							X								X
Mamma-Mia			X												
Neonatal Behavioural Assessment Scale (NBAS)							X								X
Newborn Behavioural Observation (NBO)							X								X
Supporting parent-child interaction							X								X
Triple P – Positive Parenting Program® (for Baby)							X								X
VIG							X								X
Attachment and Behavioral Catch-Up (ABC)	X														
COPEing with Toddler Behavior (CWTB)							X								
Family check up (FCU) component 1-24months											X				
Marte Meo						X	X					X			X
Mellow Bumps			X			X	X		X		X	X			X
Minding the Baby® (MTB)									X	X	X	X		X	X
Modified Mother–Infant Transaction Program (MITP)		X					X							X	
Newborn Individualized Developmental Care and Assessment		X													
Nurse Family Partnership (NFP)									X					X	X
Nurture and Play			X			X									
Nyyttigrupp				X											
Safe Environment for Every Kid (SEEK)	X									X					
Watch, wait and wonder							X								
CBT			X												
Child-Parent psychotherapy (CPP)	X							X			X				
IPT (interpersonal therapy) + IPT G (group)			X												
Parent–Baby Intervention			X				X								
Parent–Child Interaction Therapy (PCIT)						X	X					X			
Parent–infant psychotherapy (PIP)							X								
Transdiagnostic Cognitive Behavioral Group Treatment			X			X									

Universal prevention Targeted at risk groups Therapeutic interventions

[Open Table 14 in Excel](#)

The focus of this report is on interventions evaluated in publicly available online intervention information portals, with evidence ranging from promising to strong. If a psychosocial intervention has not yet been sufficiently studied in the Nordic context, it cannot be stated with certainty that the intervention will produce the desired effects. More detailed information on the interventions is available in each domain chapter and the related [appendices \(3–4\)](#).

As the field is broad and evidence continues to develop, interventions not yet included in information portals or lacking well-established Nordic evidence may be missing from the review. In cases of urgent need, interventions with promising or moderate evidence may still be appropriate, and some needs may be addressed by adapting well-established interventions from outside the Nordic region.

Expert discussions emphasised that the lack of care pathways and stepped-care models is a major challenge in perinatal mental health services. Although effective interventions exist, implementation often fails without structures that guide timely and targeted support. Stepped care provides a clear framework in which the intensity of support increases according to need, helping ensure efficient resource use and appropriate support at the right time.

Intervention gaps in relation to identified needs

Several gaps were identified between recognised risks and the interventions with an effectiveness evaluation. These gaps refer to needs identified in the literature and expert discussions that did not match any interventions with assessed effectiveness (see inclusion criteria in the chapter *Psychosocial intervention information portal mapping*). The gap analysis was based on the report's data sources. When the identified needs did not correspond to any intervention included in the portals or when the available interventions lacked sufficient evidence these were categorised as gaps.

To support clarity, the identified gaps are presented in Table 15 according to the six domains used throughout the report (Health & nutrition; Relationships & connectedness; Security, safety & a sustainable environment; Autonomy & resilience; Culture & values; Provision & experience of care). This domain-based structure allows the reader to see how the unmet needs cluster within different areas of parental and infant psychosocial well-being and where the largest discrepancies between needs and evidence-based interventions occur

More detailed information on the intervention mapping results, including the domain-organised table and the alignment between risks, existing interventions and identified gaps, can be found in the sections presenting the portal review results and [Appendices 3–4](#).

Table 15. The gaps in effective psychosocial interventions identified are described according to six domains.

Effective intervention gaps aligned with identified needs	Additional information
<p>Health and nutrition (parental):</p> <ul style="list-style-type: none"> • eating disorders • OCD • parental trauma • PTSD • neuropsychiatric challenges • bipolar disorder • schizophrenia • other psychotic disorders • substance abuse • experiences of perinatal loss • negative or traumatic childhood experiences • child development problems • disabilities and physical limitations • overweight 	<p>Some of health-related risks are treated in specialized health care, as for example psychotic disorders, which may explain the absence of psychosocial support programmes.</p> <p>Some of the risks may be overlapping with other domain risks and the support may sometimes meet also these needs.</p> <p>When observing British and American intervention portals, there were effective interventions mentioned also for parental trauma, PTSD, substance abuse, and overweight.</p>
<p>Relational and connectedness:</p> <ul style="list-style-type: none"> • lack of social support • challenges in relationship (between couples) • single parents 	<p>Some of these risks may be met with the interventions categorized under other domains, for example the programmes providing peer-support may also tackle lack of social support even if it is not the primary focus of the intervention.</p> <p>In British and American intervention portals, the interventions with effectiveness support were found also to lack of social support and challenges in couples relationships, which were not in focus in the effective interventions in Nordic context.</p>
<p>Security, safety and sustainable environment:</p> <ul style="list-style-type: none"> • experiences of disasters 	<p>Interventions measured as effective in British or American portals did not identify experiences of disasters as a primary target either.</p>
<p>Autonomy, agency and resilience:</p> <ul style="list-style-type: none"> • disable parents • negative body image 	<p>Interventions measured as effective in British or American portals did not identify disable parents or negative body image as primary targets in psychosocial interventions.</p>
<p>Culture and values:</p> <ul style="list-style-type: none"> • immigrants, refugees, and asylum seekers • sexual and gender minorities • other cultural minorities 	<p>British and American portals had only one intervention (Family Spirit) with effectiveness meeting the risk of cultural minority groups. Other minority groups were not targeted in effective interventions.</p>

Development of care models in the Nordic countries



Image: iStock

This chapter addresses the need to support the further development of care models for perinatal mental health in the Nordic countries. It outlines viewpoints that can inform the ongoing development efforts in the Nordic countries to develop care pathways and stepped care, and models for perinatal mental health. The perspectives presented are based on the report's results and have been examined in light of international guidelines for perinatal mental health care and the Nordic point of view.

International guidelines for perinatal mental health care

Several international guidelines provide a shared foundation to guide the development of suggestions for comprehensive perinatal mental health service systems. Key sources include the care pathways developed by NCCMH (National Collaborating Centre for Mental Health) and RCPsych (Royal College of Psychiatrists) (NICE, 2018), the Austrian Institute for Health Technology Assessment report on perinatal care models (Reinsperger & Paul, 2022), WHO guidance on service integration (WHO, 2022) and the Australian COPE guidelines (Highet et al., 2023). Trauma-informed care has been addressed in recent systematic reviews (Benton et al., 2024; O'Brien et al., 2023).

International recommendations consistently emphasise the organisation of perinatal mental health services according to a clear and multi-tiered structure. According to these recommendations, services should form a continuum that includes universal services for all families, targeted support for risk groups and specialised services for parents with diagnosed mental health disorders (Highet et al., 2023; NICE, 2018; WHO, 2022). The overall focus is on family well-being and the quality of early parent-child interaction. Shared principles in guidelines include:

- Ensuring early identification
- Establishing integrated service pathways and clear referral routes
- Guaranteeing timely and equitable access to support
 - Promoting multidisciplinary collaboration
 - Applying evidence-based practices
 - Adopting a family-centred approach
 - Implementing a stepped care model

In a stepped-care model, support is tailored to the severity of symptoms. Screening tools such as the EPDS (Edinburgh Postnatal Depression Scale) and ANRQ (Antenatal Risk Questionnaire) are recommended for the early identification of psychological distress (Highet et al., 2023; O'Brien et al., 2023; WHO, 2022). Assessments should also include non-birthing parents, and digital tools are encouraged to enhance accessibility and early detection.

For mild symptoms and support, guidelines emphasise psychosocial and practical interventions, including psychoeducation, guided self-help, peer support and, where needed, home visits (Highet et al., 2023; Reinsperger & Paul, 2022). Alongside universal systems for identification and support, individualised support plans and the active involvement of the whole family are recommended. A parent's psychological well-being strongly influences the child's sense of safety, attachment formation and stress regulation (Highet et al., 2023). Assessing the parent-child relationship and family safety is also advised.

All guidelines stress the need for a coordinating professional, as well as sufficient staff training and supervision (Highet et al., 2023; NICE, 2018). Additional emphasis is placed on cultural sensitivity, involving experts with experience in service planning and evaluation, and the continuous monitoring of service accessibility and effectiveness (Reinsperger & Paul, 2022; WHO, 2022).

Nordic point of view

The *First 1000 Days in the Nordic Countries* situation analysis (Dánielsdóttir & Ingudóttir, 2020) mapped practices that support the well-being of young children and their families, including maternity and child health services and early childhood education and care. The analysis identified both strengths and areas needing development across national and regional systems.

The Nordic countries have made significant progress in systematically identifying risk factors, developing screening tools and introducing structured care models. Common priorities include early detection, family-centred approaches and multidisciplinary collaboration. During the perinatal period, all countries screen for mental health problems, substance use, social vulnerability, relationship difficulties, interpersonal violence, traumatic experiences, young parental age and single parenthood. Child development and early interaction are also routinely monitored (Dánielsdóttir & Ingudóttir, 2020).

All countries provide more frequent visits for identified risk groups and additional follow-up for high-risk pregnancies, with efforts to ensure accessibility (for example, interpretation services and accommodations for disabilities). Increasing the engagement of fathers and other parents is a shared development priority (Dánielsdóttir & Ingudóttir, 2020).

Despite progress, perinatal mental health care remains underdeveloped in the Nordic countries, as well as in many countries across the European region. Common challenges are fragmented service systems, the need to strengthen cross-sectoral cooperation and gaps in services for fathers and the other parent (Dánielsdóttir & Ingudóttir; Horakova et al., 2024; Reinsperger & Paul, 2022). Although all countries have general mental health policies and recommendations for the perinatal period, implementation is uneven and not always systematically monitored (Dánielsdóttir & Ingudóttir, 2020; Horakova et al., 2024).

The situation analysis also highlighted substantial variation in service availability and quality both between and within the Nordic countries, partly due to municipal autonomy and differing local resources. At best, services are well integrated and accessible; at worst, systems are fragmented, waiting lists long and costs high, particularly in rural areas and in countries where psychological treatment is not part of primary care (Dánielsdóttir & Ingudóttir, 2020).

In addition to these findings, experts in the Nordic network about the child's first 1000 days, have highlighted further nuances in how policies translate into practice, and they have expressed their concern that current access to psychological treatment during the perinatal period is more limited than six years ago, and waiting times vary considerably across service types and geographical areas.

The Nordic expert discussions emphasised the need to harmonise and clarify care pathways, particularly when parents experience more severe mental health difficulties or social risk factors. Gaps in current care pathways create delays and interruptions that undermine continuity and reduce the effectiveness of support. Early childhood psychiatric services remain limited across the Nordic countries, and significant service gaps persist. A key unmet need is access to multidisciplinary perinatal mental health teams and specialised mother–baby units for parents with moderate to severe disorders. The lack of such units often results in the separation of the mother and infant during hospital treatment, an outcome that is detrimental to bonding and recovery.

Gaps in current care pathways have been observed to contribute to delays and interruptions in support, affecting the continuity of care. Current systems identify risks but do not sufficiently provide structured preventive or specialist care. One repeatedly noted gap concerns the availability of multidisciplinary perinatal mental health teams and specialised mother–baby units for parents with moderate to severe disorders.

Nordic and Swedish studies (Hagatulah et al., 2023) further indicate that the risk of maternal suicide peaks during the first postpartum year and may also occur among women without prior specialist care, highlighting the relevance of systematic assessment. Universal and preventive services, along with consistent risk identification practices, are also viewed as important components of current systems.

Considerations for a stepped-care model in the Nordic countries

The findings indicate that maintaining the strengths of the Nordic service model (universal perinatal and child health services, systematic identification of risk groups and access to multidisciplinary support) remains important when considering the future development of care pathways. Observed gaps suggest areas where service structures may not fully align with identified needs and further development to address these gaps is needed.

This includes strengthening access to multidisciplinary perinatal mental health teams, considering the establishment of mother–baby units where they are not yet available and ensuring systematic screening and risk assessment within routine care. Supporting continuity between maternity, primary care and mental health services may also help respond to identified needs. In addition, national strategies that address training requirements, support coordinated collaboration and ensure adequate resource allocation could contribute to more consistent service provision across the Nordic context. The findings also highlight the importance of improving the implementation of evidence-based interventions and addressing identified gaps in available psychosocial and clinical interventions, particularly in areas where effective interventions are currently limited.

Following international guidance, the proposed Nordic stepped-care model includes universal health promotion, targeted prevention for vulnerable groups, structured outpatient treatment and access to specialised units when needed.

The following section presents *the proposal for a stepped-care model* that may help inform the development of future care structures and care pathways in the Nordic context. The model is based on the definition proposed by Reinsberger & Paul (2022). The proposed model has been reviewed in relation to international guidelines, as well as the findings of this report. Figure 4 summarises the components of this model and illustrates how they could be considered when developing stepped-care approaches in the Nordic countries.

The proposal for a stepped-care model

Universal level (for all families):

Psychoeducation and support for preparing for parenthood

- Child development and needs
- Transition to parenthood and parent relationship
- Parenting skills and basic care of the infant
- Support for parents' own coping strategies and resilience
- Special attention to fathers and other parents
- Awareness of mental health challenges during the period
- Language-specific information and use of interpretation services

Timely identification and discussion

- Maintain universal identification through structured and consistent screening for anxiety and stress, as well as depression screening with validated and language-specific tools
- Follow screening with structured follow-up conversations, clear referral pathways and timely appointments, as needed
- Confidential screening for intimate partner violence and referral to safe services

Adequate and respectful support during pregnancy, childbirth and breastfeeding

Peer support

Targeted preventive support for high-risk groups or care for parents with mild symptoms:

Identify high-risk groups

- Structured psychosocial assessment to identify high-risk families
- Pre-pregnancy counselling for high-risk families
- Home visits to reinforce early support

Supportive counselling in maternity clinics and rapid psychological support for parents

Guaranteed access to evidence-based and effective psychosocial care

- Systematic implementation of interventions with research evidence meeting identified risks
- Digital interventions
- Targeted interventions
- Group or community-based interventions
- Culturally appropriate and language-specific interventions

Monitoring and support for early interaction

Support after pregnancy loss, negative or traumatic childbirth, child health-related worries

Care and support for parents with multiple risks and moderate symptoms:

Care coordinated by a multiprofessional perinatal mental health team

- Including psychiatric, psychological and social service expertise
- Individualised support plans
- Assessment of suicide risk whenever symptoms are present and rapid escalation to perinatal psychiatric expertise

Psychotherapeutic or targeted interventions

Early interaction monitoring and support

Specialised care for parents with severe psychiatric symptoms:

Specialised perinatal mental health services

- Outreach services
- Individualised support plans
- Support for family members
- Assessment of child protection needs (all children in the family)

Mother–baby units where the mother and child can stay together during hospitalisation

Acute crises:

Immediate assessment (e.g. postpartum psychosis, serious risk of suicide)

Rapid referral to perinatal psychiatric expertise

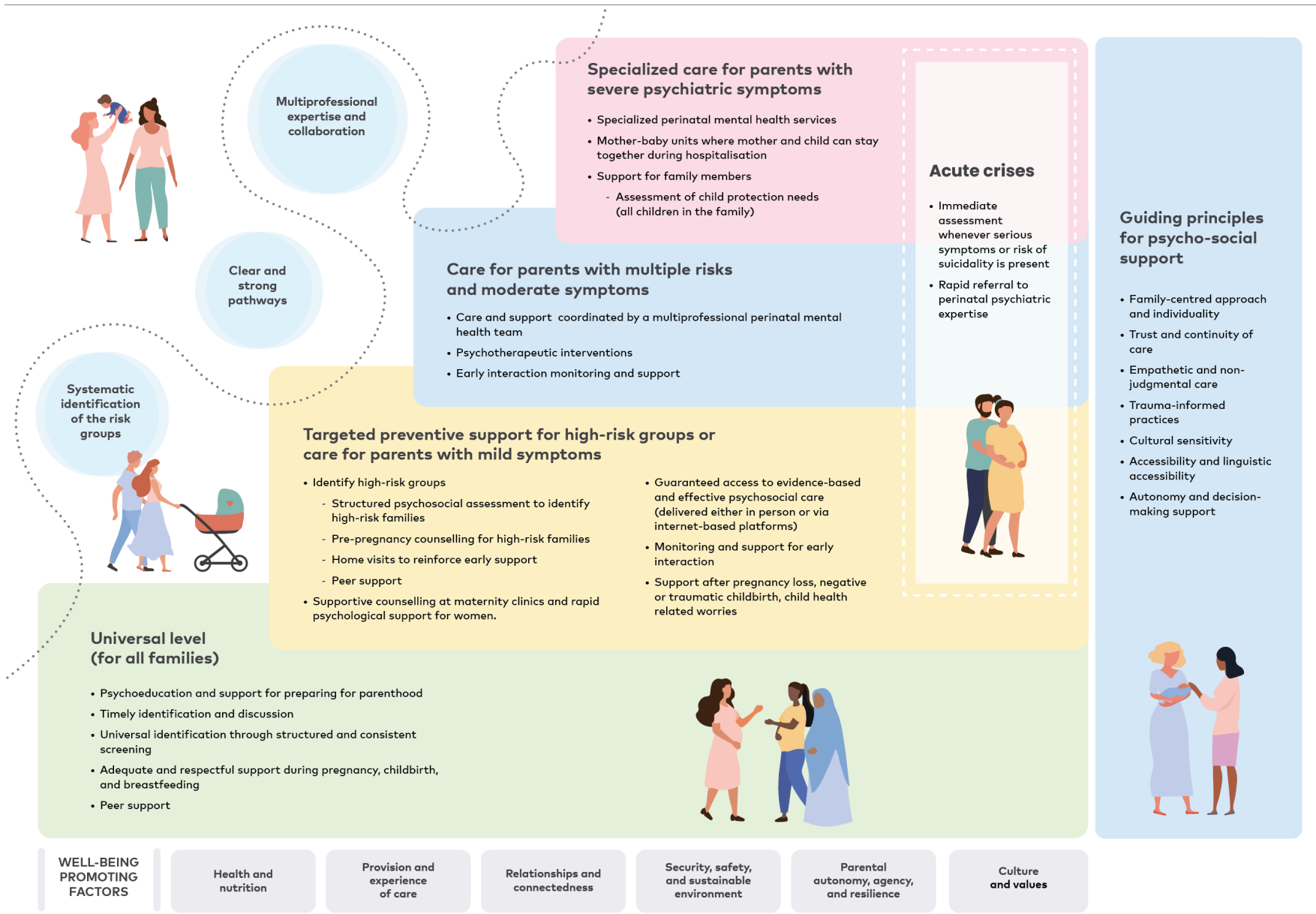


Figure 4. Proposal for a stepped-care model.

Guiding principles for psychosocial support

Evidence indicates that the quality of encounters and interaction with parents, together with individual and cultural factors, have a significant impact on later mental health. Negative experiences are associated with poorer well-being, while positive experiences protect mental health. Early identification of support needs during the transition to parenthood is a cost-effective way to promote mental health. Families facing cumulative risks are particularly dependent on timely, appropriate support including individualised care, confidential communication and cultural sensitivity.

The following section presents the principles that, based on the material of this report, strengthen the ability of services to meet the psychosocial support needs of families during the first 1000 days and support the implementation of a stepped-care model.

Family-centred approach and individuality

Treatment should be built around individual needs and the well-being of the whole family. International guidelines emphasise the importance of involving the whole family in care. The pregnant or postpartum parent together with the infant is at the centre of care, but the needs of fathers and other possible siblings for support should also be considered. Mental health challenges can strain relationships and family dynamics and increase the risk of isolation. Family-centred care strengthens resilience, the sense of security and the healthy development of the child.

Trust and continuity of care

The quality of care received, and the experiences of care emerged as among the significant factors affecting mental health. A trusting therapeutic relationship and continuity of care, together with good interaction, are key protective factors for mental health. International guidelines emphasise the continuity of care through structural solutions such as integrated care pathways, the appointment of a coordinating professional and multidisciplinary collaboration.

Empathetic and non-judgmental care

International guidelines emphasise that care should respect individual values, be culturally sensitive and be based on interactions that promote safety. Empathetic, non-judgmental care is a key principle supported by international recommendations through a trauma-informed and family-centred approach. Sensitive interaction reduces stigma, encourages help-seeking and protects mental health. Consistent guidance and a non-judgmental environment strengthen parental confidence.

Trauma-informed practices

Trauma-informed practices build a sense of safety and reduce the risk of re-traumatisation. They also protect mental health and strengthen autonomy. This requires sensitive communication, opportunities for decision-making and structural measures such

as staff training and guidance. In addition, trauma-informed and culturally sensitive care and continuous assessment support trust and prevent the discontinuation of care.

Cultural sensitivity

Culturally sensitive care ensures equality and trust. This includes interpretation services, plain language information and training for professionals on cultural differences. Cultural competence prevents misunderstandings and discrimination and is particularly important for immigrants and other vulnerable groups. International guidelines also emphasise structural measures, such as systematic training and guidance for staff.

Accessibility and linguistic accessibility

Services must be physically accessible and offer linguistic accessibility. This means interpretation, plain language materials and staff training on accessibility. Accessibility promotes participation and prevents the discontinuation of care.

Autonomy and decision-making support

Parental autonomy and decision-making should be ensured in all stages of care. This strengthens their sense of control and reduces fears associated with stigma. Clear information and decision-making support are particularly important for parents with cognitive challenges. Autonomy is supported by culturally appropriate practices and a confidential care relationship.

Guiding principles for psycho-social support

- Family-centred approach and individuality
- Trust and continuity of care
- Empathetic and non-judgmental care
- Trauma-informed practices
- Cultural sensitivity
- Accessibility and linguistic accessibility
- Autonomy and decision-making support

Next steps

While the report outlines common challenges and opportunities for the Nordic countries, national differences must be acknowledged. Each country operates within its own legislation, service structures and demographic conditions. Implementing coherent care pathways therefore requires assessing the suitability of existing structures and interventions at national and regional levels. Workforce training and policy measures are

also needed to support sustainable implementation. Because of these contextual differences, the findings cannot be applied uniformly. Below are some suggested steps and measures that could be taken at the Nordic, national and regional levels to translate the Nordic-level insights into national contexts:

Nordic level

Develop a shared assessment and implementation model for effective psychosocial interventions to support scalability, quality assurance and consistency across the Nordic region.

- The model should support the selection of interventions that are suitable for high-risk groups.
- The model should strengthen systematic, cross-country research on intervention effectiveness, enabling the identification of evidence gaps and ensuring that the needs of minority and high-risk groups are addressed.

Strengthen knowledge exchange and dissemination of good practices between the Nordic countries.

- Develop joint training modules on perinatal mental health and early interaction support.
- Establish regular Nordic knowledge-sharing forums to disseminate implementation experiences and good practices across countries.

National level

Strengthen and further develop consistent care pathways and stepped-care models that align with national service structures.

- Assess national capacity and readiness by reviewing identified needs and intervention gaps in relation to legislation, service models and available resources.
- Support the systematic implementation of interventions found effective in the Nordic context by establishing national frameworks, funding structures and training programmes that enable consistent adoption across service settings.

Ensure equitable access to perinatal support for all families.

- Develop culturally sensitive and accessible services for parents with disabilities, sexual and gender minorities and immigrant families and assess equity implications.
- Develop national training programmes on perinatal mental health and early interaction support.

Regional level

Support the local implementation of interventions found effective in the Nordic context.

- Conduct local context analyses to identify obstacles and enablers and ensure staff training and practical implementation planning to embed interventions to regional service structures.

Strengthen multiprofessional perinatal teams and family-centred care.

- Ensure systematic screening of risk factors for all parents, including fathers and non-birthing parents.
- Support peer support groups and community-based models, including father groups and family coaching.
- Strengthen attention in services to cultural and linguistic accessibility for migrant, minority and indigenous families.

These steps and measures will help countries progress from the exploration phase to the preparation phase of the EPIS Framework previously mentioned (see chapter *Successful implementation is based on careful exploration and preparation*), which includes adaptation, detailed planning and stakeholder engagement. Future development should prioritise building consistent care pathways and implementation processes that support this stepwise model, thereby strengthening effectiveness, equity and long-term improvement in perinatal services. The selection of interventions integrated in stepped-care models should balance effectiveness and suitability, considering cultural relevance, resource requirements and organisational capacity. A shared Nordic assessment framework would support collective understanding of suitability and help identify common solutions to shared challenges.

The current report provides a foundation for the exploration phase of implementation by identifying key psychosocial needs and risk factors for parents and children, reviewing existing interventions from both Nordic and international sources, and collating international guidelines alongside Nordic expert dialogue findings. Together, this establishes the evidence base needed to move toward the preparation and implementation of contextually appropriate support across the Nordic region. The report highlights gaps between evidence and practice and points to some shortcomings in the implementation structures. It acknowledges equity considerations and the complexity of contextual factors, and emphasises the need for cross-country collaboration and resource pooling to strengthen implementation efforts across the region. A coordinated Nordic approach can provide a strong basis for improving service equity, strengthening quality and supporting sustainable, context-sensitive implementation for young children and their families.

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Appendices

Appendix 1. Search query

P= pregnan* OR "pre-nat*" OR prenat* OR prepart* OR "ante-nat*" OR antenat* OR "ante-part*" OR antepart* OR "peri-nat*" OR perinat* OR "peri-part*" OR peripart* OR puerper* OR "post-nat*" OR postnat* OR "post-part*" OR postpart* OR mother* OR maternal OR father* OR paternal OR infan* OR newborn OR neonat* OR baby OR babies OR antepartum OR antenatal OR "expecting mother" OR "expecting parent" OR infant

C= "anxiety disorder*" OR "depression" OR "adjustment disorder*" OR "tokophobia" OR "fear of childbirth" OR "eating disorder*" OR "substance use disorder*" OR "alcohol use disorder*" OR "alcoholism" OR "drug abuse" OR "bipolar disorder*" OR "schizophrenia" OR "psychotic disorder*" OR "psychosis" OR "psychotic" OR "traumatic childbirth" OR "post-traumatic stress disorder" OR "PTSD" OR "suicidality" OR "suicidal ideation" OR "self-harm" OR "loneliness" OR "poverty" OR "homelessness" OR "low educational level" OR "low education" OR "unemployment" OR "financial insecurity" OR "domestic violence" OR "intimate partner violence" OR "relationship problem*" OR "divorce" OR "separation" OR "family conflict*" OR "lack of social support" OR "pregnancy complication*" OR "preterm birth" OR "adverse childhood experience*" OR "psychological stress*" OR "psychological distress*" OR "psychosocial distress" OR "psychosocial stress*" OR "sleep problem*" OR trauma* OR phobia* OR "obsessive compulsiv*" OR "social problem*" OR "social support" OR "coping mechanism*" OR "protective factor*" OR "risk factor*" OR "resilience" OR "positive self-image" OR "acceptance of life changes" OR "partner support" OR "family support" OR "community support" OR "peer support" OR "doula support" OR "stable living environment" OR "responsiveness to infant needs" OR "positive parenting beliefs" OR "knowledge about pregnancy" OR "mental health" OR attachment" OR "bonding" OR "connection" OR "relationship" OR "interaction" OR "early interaction" OR "mother baby interaction" OR "father baby interaction"

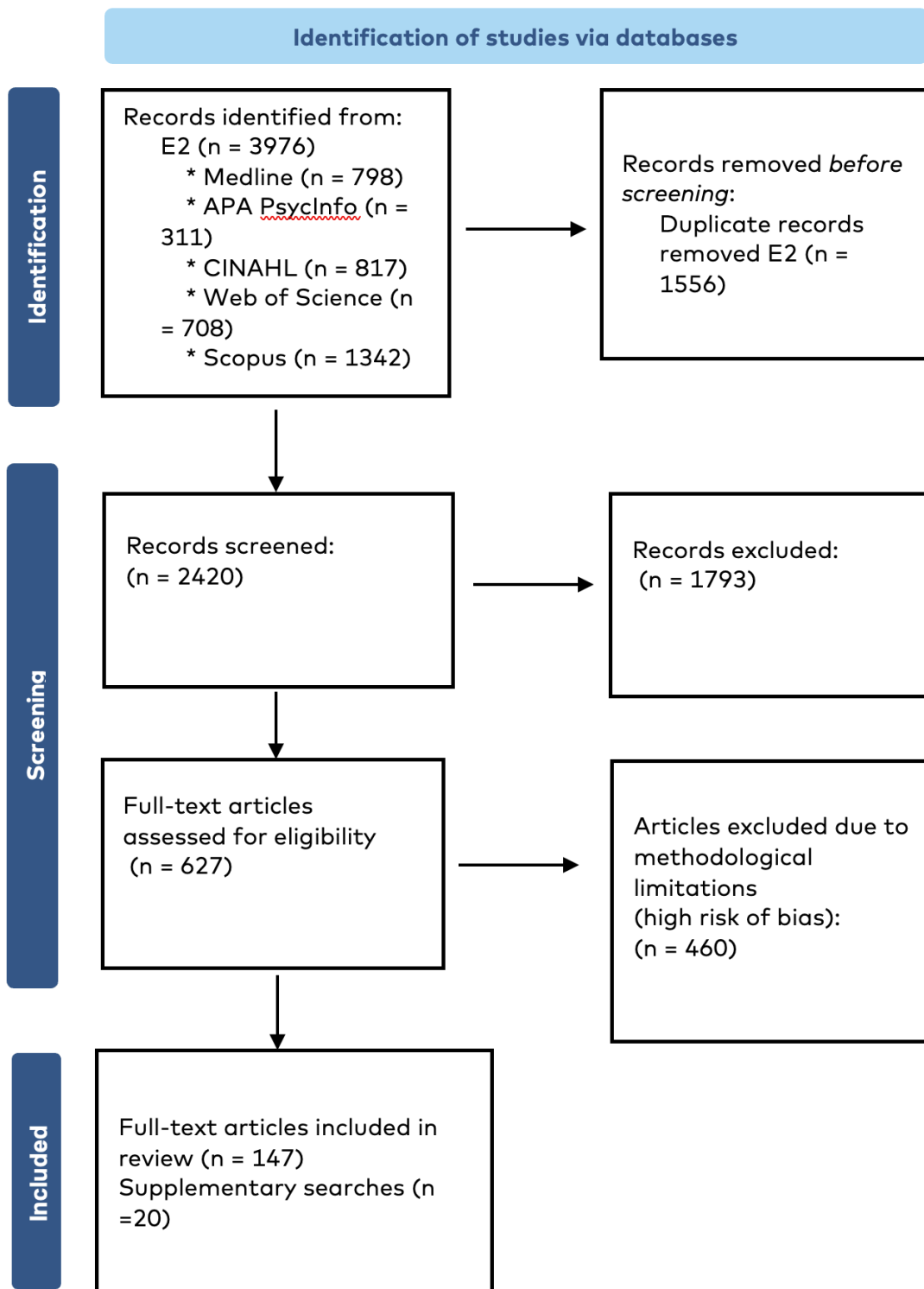
C= "healthcare" OR "maternity care" OR "perinatal care" OR "health services" OR "obstetric care" OR "public support" OR "community support" OR "government support" OR "welfare programs" OR "social services" OR "family support services" OR "child welfare services" OR "mental health services" OR "counselling services"

Additional filters

NOT= "teen pregnancy" OR "adolescent pregnancy" OR "young mothers" OR "teen mothers" OR "adolescent mother*" OR "breastfeeding" OR "infant nutrition" OR "infant feeding" OR "formula feeding" OR "complementary feeding" OR "COVID-19" OR "SARS-CoV-2" OR "pandemic" OR "coronavirus" OR "allerg*" OR diabet* OR "scoping review" OR "umbrella review" OR "oral health" OR "sexual and reproductive health" OR haematolog* OR hemorrhage* OR "obstetric fistula" OR "HIV" OR africa* OR "sub-sahara*" OR india* OR "low- and middle-income countr*"

Additionally, the search was limited to systematic reviews and meta-analyses at the abstract, title, and keyword levels. Further restrictions included the English language and the years 2010–2025.

Appendix 2. PRISMA flow chart



Appendix 3. Psychosocial intervention with effectiveness grading (Nordic portals)

Intervention	Population	Goal	Classification	Summary	Outcome	Effectiveness grading*
Attachment and Behavioral Catch-Up (ABC) https://norden.diva-portal.org/smash/get/diva2:1571297/FULLTEXT01.pdf	Parents (biological or foster) of children aged 6–24 months who have experienced adverse events such as abuse or neglect.	To support parents in providing care when the child is stressed and in preventing harmful reactions. Attachment-based.	Targeted at a risk group	Ten weekly home visits, attachment-based therapy, each lasting 60–90 minutes, incorporating video-based exercises and coach feedback.	Improvements in children's attachment security, stress regulation (cortisol levels), emotion regulation and social-emotional competence.	Nordic review 3/4 (Incl. Nordic studies)
CBT Psychological Treatment for Postpartum Depression	Mothers experiencing perinatal depression	To reduce depressive symptoms	Therapeutic intervention	Sessions that focus on psychoeducation, cognitive restructuring, behavioural techniques, exposure therapy and stress management. CBT includes integration of planning and support for the postpartum needs whilst the patient receives treatment in the antenatal period.	In non-psychotic perinatal mental health disorders, CBT has been shown to effectively reduce symptoms of anxiety, stress and depression, and reduce depression diagnoses post-treatment and on follow-up.	SBU Moderate (2022)

<p>Child-Parent Psychotherapy (CPP) https://norden.diva-portal.org/smash/get/diva2:1571297/FULLTEXT01.pdf</p>	<p>Children aged 0-5 years who have experienced or witnessed a traumatic event and are exhibiting attachment, behavioural or emotional difficulties as a result, together with their parents.</p>	<p>To support and strengthen the relationship between a child and his or her caregiver as a vehicle for restoring the child's cognitive, behavioural and social functioning</p>	<p>Therapeutic intervention</p>	<p>Psychodynamic-oriented treatment and interpretation during play is one of the main techniques. Takes one year to complete and consists of therapist meetings with the child and parent on a weekly basis.</p>	<p>Effects: children's and mothers' traumatic stress symptoms, children's internalising and externalising symptoms and mothers' bias toward their children's fearful faces.</p>	<p>Nordic review 2/4 (Incl. Nordic studies)</p>
<p>COPEing with Toddler Behavior (CWTB) https://norden.diva-portal.org/smash/get/diva2:1571297/FULLTEXT01.pdf</p>	<p>Parents of toddlers (1-3 years) who have behavioural problems (reported by parents)</p>	<p>To improve parent-child interaction and prevent the development of disruptive behaviour disorders.</p>	<p>Targeted at a risk group</p>	<p>Eight-session parent training programme focusing on effective parenting styles and strategies for toddlers, using an active learning model. Group therapy</p>	<p>Significant effects on several primary and secondary outcomes in the CWTB group compared to the control group (e.g., child behaviour problems, positive parent-child interaction and parental over-reactivity).</p>	<p>Nordic review 2/4 (No Nordic studies)</p>

<p>Incredible Years® (IY) – Parents and Babies Program + Toddler Basic Program https://norden.diva-portal.org/smash/get/diva2:1571297/FULLTEXT01.pdf</p>	<p>Parents of infants (0–1 year).</p>	<p>To support parent–child attachment and promote the child’s physical, cognitive and emotional development.</p>	<p>Universal prevention (adapted versions for specific risk groups and treatment)</p>	<p>Group-based guidance using videos, discussions and exercises. Focused on infant development, creating a safe environment and strengthening the parent’s role.</p>	<p>Improved attachment security, parental self-efficacy and child development</p>	<p>Nordic review 2/4 (Incl. Nordic studies)</p>
<p>IPT (interpersonal therapy) + IPTG (group) https://norden.diva-portal.org/smash/get/diva2:1571297/FULLTEXT01.pdf</p>	<p>Mothers with depressive symptoms (pre-/peri-/post-natal)</p>	<p>To alleviate symptoms of depression and other mental health disorders by empowering isolated individuals to improve their relationships and social support networks</p>	<p>Therapeutic intervention</p>	<p>12–16-week symptom-targeted, structured intervention. Specific strategies to deal with whichever of the four potential problem areas is the focus</p>	<p>Fewer cases of depression, significantly greater decrease in depressive symptoms, postpartum adjustment and social adjustment, increase in positive involvement with the child</p>	<p>Nordic review 3/4 (Incl. Nordic studies)</p>
<p>Mamma-Mia https://norden.diva-portal.org/smash/get/diva2:1571297/FULLTEXT01.pdf</p>	<p>Universal and risk factors for postpartum depression</p>	<p>To support preparation for parenthood: psychoeducation, emotional skills and cognitive-behavioural strategies</p>	<p>Universal prevention</p>	<p>Web-based, to support preparation for parenthood: psychoeducation, emotional skills, and cognitive-behavioural strategies</p>	<p>Reduction in depressive symptoms and improvement in the mother’s psychological well-being.</p>	<p>Nordic review 3/4 (Incl. Nordic studies)</p>

<p>Marte Meo https://norden.diva-portal.org/smash/get/diva2:1571297/FULLTEXT01.pdf</p>	<p>Parents of the youngest children, first-time mothers, vulnerable or insecure mothers</p>	<p>Preventing maternal stress, increasing sensitivity and confidence</p>	<p>Targeted at a risk group</p>	<p>Video-based intervention for promoting child development. The videos are used by the therapist to observe what happens in the interaction between the parents and their children, for mapping the children's needs and in parent supervision.</p>	<p>Better interaction, maternal sensitivity, maternal confidence and less maternal stress</p>	<p>Nordic review 2/4 (Incl. Nordic studies)</p>
<p>Mellow Bumps (MB) https://norden.diva-portal.org/smash/get/diva2:1571297/FULLTEXT01.pdf</p>	<p>Pregnant mothers experiencing stress or mental health problems such as depression, additional social care needs</p>	<p>To decrease stress in expectant mothers, improve their understanding of their infant's social-interactive capacity, and promote a nurturing relationship</p>	<p>Targeted at a risk group</p>	<p>Group therapy focuses on emotions related to motherhood, stress management and understanding the infant's capacities.</p>	<p>Reduction in maternal stress levels and better preparation for motherhood</p>	<p>Nordic review 2/4 (No Nordic studies)</p>
<p>Minding the Baby® (MTB) https://norden.diva-portal.org/smash/get/diva2:1571297/FULLTEXT01.pdf</p>	<p>First-time pregnant women aged 14–25 years with a high risk of multiple social factors</p>	<p>To improve socioemotional outcomes, strengthen the secure bond between the mother and infant, and enhance the ability to respond to the child's needs, overall parenting skills. Attachment-based</p>	<p>Targeted at a risk group</p>	<p>Home visits, attachment-based, beginning in the second trimester of pregnancy and continuing through the child's first year of life. The goal is to teach protective skills and emotional regulation.</p>	<p>Aims to improve child and maternal socioemotional outcomes: Positive effects on parental sensitivity, the child's physical and psychological development, and overall family resilience</p>	<p>Nordic review 3/4 (3 /EIF) (Incl. Nordic studies)</p>

<p>Modified Mother–Infant Transaction Program (MITP) https://norden.diva-portal.org/smash/get/diva2:1571297/FULLTEXT01.pdf</p>	<p>Preterm infants and their parents</p>	<p>For preterm infants: the programme aims to enhance parental understanding of the infant's cues and promote sensitive and consistent responses, supporting the child's healthy development.</p>	<p>Targeted at a risk group</p>	<p>Home visits that guide parents in recognising infant cues and engaging in responsive interactions. The programme focuses on strengthening child development and family relationships.</p>	<p>Positive effects on parental sensitivity, quality of interaction and the infant's cognitive and social development</p>	<p>Nordic review 4/4 (Incl. Nordic studies)</p>
<p>Neonatal Behavioral Assessment Scale (NBAS) https://norden.diva-portal.org/smash/get/diva2:1571297/FULLTEXT01.pdf</p>	<p>Infants (0–2 months) and their parents.</p>	<p>To sensitise parents to infants' capacities and individuality, and enhance the parent–infant interaction and relationship</p>	<p>Universal prevention</p>	<p>Improving caregiver–infant interaction at the behavioural level through a specific focus on caregiver responsiveness during the earliest days and months of the infant's life</p>	<p>Strengthened interaction between the caregiver and infant</p>	<p>Nordic review 2/4 (No Nordic studies)</p>
<p>Newborn Behavioral Observation (NBO) https://norden.diva-portal.org/smash/get/diva2:1571297/FULLTEXT01.pdf</p>	<p>Infants (0–3 months) and their parents.</p>	<p>Preventive support for early parent–infant interaction: to improve parents' awareness of their infant's competencies and thereby promote better interaction.</p>	<p>Universal prevention (also adapted for specific risk groups)</p>	<p>The intervention aims to improve parents' awareness of their infant's competencies and thereby promote better interaction. Clinicians video record the interaction and use the recordings in supervision. Home-based.</p>	<p>The intervention is based around the child, with parents focusing on how the child is communicating with them, and how the parents understand their child.</p>	<p>Nordic review 2/4 (Incl. Nordic studies)</p>

<p>Newborn Individualised Developmental Care and Assessment Program (NIDCAP) https://norden.diva-portal.org/smash/get/diva2:1571297/FULLTEXT01.pdf</p>	<p>Preterm infants/ infants with very low birth weight admitted to a newborn/ neonatal intensive care unit (NICU), together with their parents.</p>	<p>Promoting healthy development, emotional bonding and empowerment</p>	<p>Targeted at a risk group</p>	<p>Sequential, formalised, naturalistic observations of the infant prior to, during and after caregiving procedures.</p>	<p>Positive effects on cognitive and motor development improve long-term neuro-developmental or short-term medical outcomes.</p>	<p>Nordic review 2/4 (Incl. Nordic studies)</p>
<p>Nurse–Family Partnership (NFP) https://norden.diva-portal.org/smash/get/diva2:1571297/FULLTEXT01.pdf</p>	<p>Young first-time mothers, especially families with a low socioeconomic status</p>	<p>Better pregnancy outcomes, improved child health and development, increased economic self-sufficiency</p>	<p>Targeted at a risk group</p>	<p>A home-visit-based programme in which trained nurses support the family.</p>	<p>Positive effects on the child's health, the mother's self-esteem and the family's well-being.</p>	<p>Nordic review 3/4 (Incl. Nordic studies)</p>
<p>Nurture and Play https://norden.diva-portal.org/smash/get/diva2:1571297/FULLTEXT01.pdf</p>	<p>Mothers with depression</p>	<p>To strengthen the emotional bond between the parent and child by enhancing parental sensitivity, responsiveness and playfulness through attachment-based interactions.</p>	<p>Targeted at a risk group</p>	<p>Group-based guidance involving interactive exercises and play. Includes activities that help mothers understand their child's signals and emotions.</p>	<p>Reduction in depressive symptoms and improved interaction with the child.</p>	<p>Nordic review 2/4 (Incl. Nordic studies)</p>
<p>Nyyttigroup https://itla.fi/en/interventions/nyytti-group/</p>	<p>Pregnant mothers with fear of childbirth</p>	<p>Supporting first-time mothers in alleviating childbirth fear and strengthening their readiness for birth and parenthood</p>	<p>Targeted at a risk group</p>	<p>A semi-structured peer group-based intervention, targeted at pregnant mothers expecting their first child. The intervention is based on strengthening body awareness and self-regulation, with peer groups as well as instructive and educative ways of working (psychoeducation)</p>	<p>Preparedness for childbirth increased among mothers who gave birth to their first child in the intervention group. With a reduced fear of childbirth, motherhood strengthened in mothers who participated in the Nyytti group (Finland)</p>	<p>2/3 Kasvun Tuki (Incl. Nordic studies) (2021)</p>

<p>Parent–Baby Intervention https://norden.diva-portal.org/smash/get/diva2:1571297/FULLTEXT01.pdf</p>	<p>Parents with depression and other mental disorders, and their babies (0–1 years).</p>	<p>The aims of the intervention are to strengthen social interaction and contact with the infant.</p>	<p>Therapeutic intervention</p>	<p>The aims of the intervention are to strengthen social interaction and contact with the infant and to reduce the risk of future socio-emotional problems in the child. 8–10 home visits every 1–2 weeks. During each home visit, the home visitor monitors and videorecords the parents and children during everyday activities, such as bathing or feeding the baby.</p>	<p>Positive effect on the quality of the mother–infant interaction, better infant attachment security and social competence</p>	<p>Nordic review 2/4 (No Nordic studies)</p>
<p>Parent–Child Interaction Therapy (PCIT) https://norden.diva-portal.org/smash/get/diva2:1571297/FULLTEXT01.pdf</p>	<p>Families with behavioural problems or difficulties in stress regulation</p>	<p>To strengthen the parent–child relationship, reduce disruptive behaviours in children and empower parents with effective strategies for managing their child's behaviour</p>	<p>Therapeutic intervention</p>	<p>Individual sessions using real-time coaching, where the parent interacts with their child and receives feedback from a coach through an earpiece. The exercises focus on reinforcing positive behaviour and setting boundaries</p>	<p>Significant improvements in child behaviour, parental stress levels and parenting techniques</p>	<p>Nordic review 4/4 (Incl. Nordic studies)</p>

<p>Parent–infant psychotherapy (PIP) https://norden.diva-portal.org/smash/get/diva2:1571297/FULLTEXT01.pdf</p>	<p>Parents of infants aged 24 months or younger who have problems in parent–infant relationships, problems with the infant's excessive crying and sleeping/eating difficulties</p>	<p>To strengthen the parent–child relationship and promote healthy attachment</p>	<p>Therapeutic intervention</p>	<p>A parent–infant psychotherapist works directly with the parent(s) and infant</p>	<p>Effects: favourable outcomes over time for the PIP-treated dyads relative to the control group on several measures of maternal mental health, parenting stress and parental representations of the infant and their relationship.</p>	<p>Nordic review 2/4 (Incl. Nordic studies)</p>
<p>Safe Environment for Every Kid (SEEK) https://norden.diva-portal.org/smash/get/diva2:1571297/FULLTEXT01.pdf</p>	<p>Families with a risk of abuse or neglect towards the infant</p>	<p>To help prevent child abuse and neglect</p>	<p>Early prevention for risk groups</p>	<p>Based on integrating child healthcare to identify and prevent domestic violence and parental stress.</p>	<p>Reduction in cases of abuse and improvement in family well-being</p>	<p>Nordic review 2/4 (Incl. Nordic studies)</p>
<p>Supporting Parent–Child Interaction https://norden.diva-portal.org/smash/get/diva2:1571297/FULLTEXT01.pdf</p>	<p>0–18-month-old children and their parents</p>	<p>The intervention is primarily intended to support pregnant and post-natal women and young children, and employees working with their families.</p>	<p>Universal prevention</p>	<p>The interview is conducted at home, with both parents present. It is recommended that the interviews should take place during the last trimester at the latest, and within 4–8 weeks after delivery.</p>	<p>Mothers were more responsive towards their children, provided more appropriate play material, were more involved and used less control than mothers in the control group</p>	<p>Nordic review 2/4 (Incl. Nordic studies)</p>
<p>Transdiagnostic Cognitive Behavioral Group Treatment (TCBGT) for Pregnant Women https://norden.diva-portal.org/smash/get/diva2:1571297/FULLTEXT01.pdf</p>	<p>Pregnant women with mild to moderate symptoms of depression or anxiety.</p>	<p>To reduce symptoms of anxiety and depression during and after pregnancy</p>	<p>Therapeutic intervention</p>	<p>Cognitive-behavioural group therapy focuses on emotion regulation, challenging thought patterns and stress management.</p>	<p>A significant reduction in symptoms of depression and anxiety.</p>	<p>Nordic review 2/4 (Incl. Nordic studies)</p>

<p>Triple P – Positive Parenting Program® (Triple P for Baby) https://norden.diva-portal.org/smash/get/diva2:1571297/FULLTEXT01.pdf</p>	<p>Parents of young children (0–2 years), although the programme can be adapted for other age groups.</p>	<p>To support parenting and promote child development. To prevent behavioural and emotional problems in the children–baby version: prenatal and post-natal parents interested in learning about baby development and behaviour</p>	<p>Universal prevention</p>	<p>A multi-level programme that may include individual sessions, group meetings or self-directed learning. Triple P for Baby is an individual and group-based intervention aimed at prenatal and postnatal parents interested in learning about baby development and behaviour, common changes when their baby arrives, as well as strategies to help teach their baby new skills and behaviours. There is also a Triple Discussion Group version.</p>	<p>Reduction in children's behavioural problems and improvement in parenting skills</p>	<p>Nordic review 3/4 (Incl. Nordic studies)</p>
<p>Video Interaction Guidance (VIG) https://norden.diva-portal.org/smash/get/diva2:1571297/FULLTEXT01.pdf</p>	<p>Parents and children, especially experiencing challenges in early interaction.</p>	<p>Promotes attunement, sensitivity and mentalisation in relationships.</p>	<p>Universal prevention</p>	<p>Video recordings of parent–child interactions are used. Video clips are analysed together with a coach. VIG can be used in various contexts</p>	<p>Improvement in parental sensitivity and increased emotional security for the child</p>	<p>Nordic review 2/4 (No Nordic studies)</p>
<p>Watch, Wait and Wonder https://norden.diva-portal.org/smash/get/diva2:1571297/FULLTEXT01.pdf</p>	<p>Children and parents, especially families experiencing problems related to interaction</p>	<p>Strengthening of attachment and improvement in the child's self-regulation</p>	<p>Targeted at a risk group</p>	<p>An intervention in which the parent observes their child's spontaneous behaviour and responds to it. The interaction situations are analysed in discussion with a therapist.</p>	<p>Strengthening of attachment and improvement in the child's self-regulation</p>	<p>Nordic review 2/4 (No Nordic studies)</p>

Nordic Review <https://norden.diva-portal.org/smash/get/diva2:1571297/FULLTEXT01.pdf>

Ungsinn https://en.uit.no/project/ungsinn_en

Kasvun Tuki <https://itla.fi/en/early-intervention/intervention-bank/>

SBU <https://www.sbu.se/en/publications/reports-on-psychological-and-psychosocial-interventions/>

Appendix 4. Psychosocial intervention with effectiveness grading (British and American portals)

Intervention	Population	Goal	Classification	Summary	Outcome
<p>IPP Infant-parent psychotherapy Infant-Parent Psychotherapy - Foundations</p>	<p>Mothers identified as being depressed, anxious, traumatised or at risk of maltreating their child.</p>	<p>To strengthen the parent–infant bond by addressing parental trauma and insecurities to prevent insecure attachment and support healthy infant development</p>	<p>Therapeutic intervention</p>	<p>A psychoanalytic intervention targeting mother–infant dyads who may be at risk of an insecure attachment. To prevent insecure attachment or to shift an insecure to a secure attachment, as measured by Ainsworth’s Strange Situation. Mothers attend weekly sessions at home with their infant (< six months) for a period of 12 months or longer.</p>	<p>Supports children's mental health and well-being (specified)</p>
<p>Adolescent Parenting Program (APP) CEBC » Program » Adolescent Parenting Program App</p>	<p>First-time pregnant and parenting youths aged 12 to 19 years old, and who must be enrolled in school or a GED completion programme</p>	<p>Supporting young first-time mothers to prevent a repeat pregnancy, complete their high school education, acquire job skills and improve their parenting skills</p>	<p>Targeted at a risk group</p>	<p>Participants in the programme receive monthly home visits using either the Partners for a Healthy Baby or Parents as Teachers home-visiting curriculum, along with 24 hours of prescriptive group education with their peers.</p>	<p>Helps mothers become self-sufficient and better able to support themselves and their families. It also establishes a strong, stable foundation upon which their child will be raised.</p>

<p>Child First</p> <p>Child First - Foundations</p> <p>NES - Early Intervention Framework - Child First</p>	<p>Mothers of children at risk of emotional problems, developmental delay, abuse and neglect (version for toddlers)</p>	<p>To provide a tailored package of support to meet the unique needs of each family.</p>	<p>Targeted at a risk group</p>	<p>Bridge universal, targeted and specialist/intensive services to provide a tailored package of support to meet the unique needs of each family. Comprehensive needs assessment of each family's specific strengths and weaknesses. Motivational interviewing is used during these first visits to actively engage and recruit parents to the programme; weekly home visits begin for a period of 6 to 12 months.</p>	<p>Reduced psychiatric symptoms in parents, reduction in child externalising difficulties</p>
<p>Computer-Assisted Motivational Intervention (CAMI)</p> <p>CEBC » Program » Computer Assisted Motivational Intervention</p>	<p>Pregnant and/or first-time parenting adolescents aged 18 and younger</p>	<p>To help adolescent mothers make healthier choices to reduce their risk of repeat pregnancies and sexually transmitted infections</p>	<p>Targeted at a risk group</p>	<p>CAMI consists of 60-minute sessions conducted in two parts by trained counsellors who meet one-on-one with pregnant and/or parenting adolescent mothers, aged 12 to 18 years.</p>	<p>Preventing repeat pregnancies and staying healthy</p>
<p>EPEC Baby and Us – version (parents of babies 0-1)</p> <p>NES - Early Intervention Framework - Empowering Parents, Empowering Communities (EPEC)</p>	<p>Families living in areas of high social deprivation and their aims centre on improving the parent-child relationship, prevention of later child behaviour difficulties and increasing parental confidence.</p>	<p>To increase parenting skills and confidence, preventing later child behaviour difficulties.</p>	<p>Targeted at a risk group</p>	<p>A group parenting intervention, delivered by parents who have previously participated in a parenting group and have undertaken the ten-week EPEC training programme for peer facilitation</p>	<p>Improvements in children's externalising behaviours. Effects on positive parenting and impact on parenting stress.</p>

<p>Family Foundations (FF) (eFF)</p> <p>NES - Early Intervention Framework - Family Foundations</p> <p>Blueprints Programs – Blueprints for Healthy Youth Development</p> <p>Family Foundations – Foundations</p>	<p>Couples expecting their first child, delivered at any time during the mother's pregnancy.</p>	<p>To enhance parenting skills such as communication, conflict resolution, sharing duties, supporting child development.</p>	<p>Universal prevention</p>	<p>The programme is delivered by male and female co-facilitators with a QCF-level 6 in a helping profession. Parents attend five weekly sessions in which they learn strategies for enhancing their communication, conflict resolution and the sharing of childcare duties. Couples return for four more weekly sessions, two to six months after the infant is born, to learn strategies for communicating effectively as parents and supporting their child's development</p>	<p>Reduced adverse birth outcomes; improvements in infant soothing ability, attention sleep and child social-emotional functioning.</p>
<p>Family Growth Center, The (FGC)</p> <p>CEBC » Program » The Family Growth Center Egc</p>	<p>Adolescent mothers aged 13–17 years and their infants from birth to 2 years of age in high-risk neighbourhoods</p>	<p>Improved access to a comprehensive set of educational and support services within their own high-risk neighbourhood</p>	<p>Targeted at a risk group</p>	<p>A community-based family support programme designed to reduce repeat pregnancy and school drop-out rates among adolescent mothers. The programme aims to provide teen mothers in high-risk neighbourhoods with a comprehensive set of educational and support services, offered within family and neighbourhood contexts.</p>	<p>Reduced school dropouts and finding support services</p>

<p>Family Nurse Partnership</p> <p>Family Nurse Partnership (FNP) - Foundations</p> <p>NES - Early Intervention Framework - Parent Infant Psychotherapy (PIP)</p>	<p>Young mothers expecting their first child.</p>	<p>To learn about their young child's health and development and receive support for their own well-being.</p>	<p>Targeted at a risk group</p>	<p>Mothers enrol in the programme early in their pregnancy and receive visits from a family nurse on a weekly basis before and for the first six weeks after the birth of their child. Visits then continue fortnightly until three months before the child's second birthday, when visits become monthly in preparation for the programme ending. 64 visits in total are scheduled. During these visits, mothers learn about their young child's health and development, and receive support for their own well-being.</p>	<p>Prevention of obesity and promotion of healthy physical development</p>
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<p>Family Spirit®</p> <p>CEBC » Program » Family Spirit</p>	<p>Any at-risk or young adult mother (under 25 years of age) who is pregnant (ideally 28 weeks of gestation or earlier) and/or has a child younger than 3 years old and lives in a Native American community; can be used regardless of ethnicity</p>	<p>To increase parenting knowledge and skills</p>	<p>Targeted at a risk group</p>	<p>A culturally tailored home-visiting programme designed to promote optimal health and well-being for parents and their children. Family Spirit combines the use of paraprofessionals from the community as home visitors and a culturally informed, strength-based curriculum as a core strategy to support young families. Parents are given information and taught skills designed to promote healthy development and positive lifestyles for themselves and their children.</p>	<p>Increase in parenting knowledge and skills Decrease in psychosocial risks that could interfere with positive child-rearing. Increase in familiarity with and use of community services that address specific needs Increase in life skills and behavioural outcomes across the lifespan</p>
<p>Mellow babies</p> <p>NES - Early Intervention Framework - Mellow Babies</p>	<p>Mothers (and fathers run separately) with babies aged 0–12 months with multiple indicators of developmental risk.</p>	<p>To increase positive parent–infant interactions; reduce negative parent–infant interactions; improve infant development, including language development; reduce child protection concerns; and improve adult well-being</p>	<p>Targeted at a risk group</p>	<p>This programme is delivered over 14 weekly sessions for an afternoon's duration following on from Mellow Mums or Mellow Dads and an interactive lunch for parents and babies.</p>	<p>Improvement in child behaviour/conduct problems post-intervention. Improvement in maternal mental health and parenting confidence, reduction in mothers' depressed mood and increase in positive interactions between mothers and infants. Mothers with partners experienced greater benefits in mental health and parenting confidence compared to single mothers.</p>

<p>Michigan Model of Infant Mental Health Home Visiting, The (IMH-HV)</p> <p>CEBC » Program » The Michigan Model Of Infant Mental Health Home Visiting</p>	<p>Families, specifically parents and their infants/toddlers ages 0 (during pregnancy) to 36 months, who present challenges to the parent-child relationship</p>	<p>Aims to increase parental competencies, promote mental health and sensitive caregiving, and thus reduce risks for the infant/toddler and lessen the probability of intergenerational transmission of the effects of unresolved loss and trauma in parents.</p>	<p>Targeted at a risk group</p>	<p>A needs-driven, relationship-focused intervention for parents and infants/toddlers aged 0 (pregnancy) to 36 months. IMH-HV aims to meet the needs of families at risk of relationship problems, child abuse and/or neglect and behavioural health concerns.</p>	<p>Increase in parental competencies, promotion of mental health and sensitive caregiving, and thus reduction in risks for the infant/toddler and lessening of the probability of intergenerational transmission of the effects of unresolved loss and trauma in parents.</p>
<p>Mom Power®</p> <p>https://www.cebc4cw.org/program/mom-power/</p>	<p>Mothers (e.g., biological, adoptive, foster, etc.) of child(ren) aged 0 (during pregnancy) to 6 years, where the mothers are experiencing adversity, have past experiences of trauma or abuse, and/or current mental health challenges (e.g., posttraumatic stress and/or depressive symptoms)</p>	<p>To reduce maternal depression and post-traumatic stress symptoms, parenting stress and increase the sense of parenting competence To secure safe attachments for the child. Also aims to reduce isolation and build social networks</p>	<p>Targeted at a risk group</p>	<p>An integrated mental health and attachment-based parenting programme that incorporates a manualised intervention delivered by 2 facilitators across 13 sessions (3 individual and 10 group sessions), with corresponding parent and child group curricula.</p>	<p>The programme seeks to nurture resilience through strengthening protective factors, improving mental health and promoting sensitivity and responsive parenting.</p>
<p>Parent-Child Assistance Program (PCAP)</p> <p>CEBC » Program » Parent Child Assistance Program</p>	<p>Pregnant or parenting mothers (up to 12 months postpartum) who have alcohol and/or drug use disorders and their children aged 0 to 3 years.</p>	<p>To obtain treatment for alcohol and drug use and remain in recovery, using community resources</p>	<p>Targeted at a risk group</p>	<p>Serves high-risk mothers with substance use disorders and their families using a theory-based model (relational theory, stages of change and harm reduction)</p>	<p>Obtaining of treatment for alcohol and drug use and remaining in recovery Use of community resources. Ensuring that any future babies are not alcohol- and drug-affected For children, the services received include immunisations, well-child visits and therapeutic services.</p>

<p>Parenting Together Project (PTP) CEBC » Program » Parenting Together Project</p>	<p>Couples who just became first-time parents and could use assistance in developing the father's role in parenthood</p>	<p>To increase mothers' support and expectations for the fathers' involvement; to foster co-parental teamwork in the couple; and to have the couple deal more constructively with contextual factors, such as work and cultural expectations</p>	<p>Universal prevention</p>	<p>Educational intervention for first-time parents focusing on the development of fathers' knowledge, skills and commitment to the fatherhood role. The intervention consists of eight 2-hour sessions that are spread out between the second trimester of pregnancy and five months postpartum.</p>	<p>Positive effects on fathers' skills in interacting with their babies and their involvement on workdays.</p>
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<p>Parents as first Teachers /Parents as teachers (USA) NES – Early Intervention Framework – Parents as First Teachers</p>	<p>Parents of children pre-birth to 5 years old. The programme is often used as a targeted approach for families with high needs</p>	<p>To develop family resilience and promote positive parenting behaviours that will persist</p>	<p>Universal prevention (targeted at a risk group)</p>	<p>Parents are visited at home by a parent educator who supports them in developing their relationship with their child by highlighting the strengths in the parent-child interactions, as well as encouraging the parents to observe and be aware of the child's development and increase the child's school readiness. Practitioners help parents reflect on their parenting, and jointly with parents develop strategies for addressing developmental and behavioural concerns. The programme also has a community element, where parents are supported to link into community resources and regularly attend a group session.</p>	<p>Positive effects on parental outcome measures related to acceptance of the child's behaviour, happiness in caring for them. Improvements in children's adaptive behaviour, developmental status and language skills, and for the most vulnerable families in their sample, a reduction in problem behaviour.</p>
<p>Preparing for life Preparing for Life – Foundations</p>	<p>Expectant parents living in disadvantaged neighbourhoods/communities. All age groups of children</p>	<p>To create nurturing home environments by improving parental self-efficacy and well-being, ultimately promoting children's long-term school readiness and development</p>	<p>Targeted at a risk group</p>	<p>Delivered in home and community centre settings and aims to support the creation of a nurturing home environment, improve parenting outcomes in the short term (e.g., parental self-efficacy, well-being) and improve children's school readiness in the longer term.</p>	<p>Enhancement of school achievement & employment. Supporting of children's mental health and well-being</p>

<p>Promoting first relationships NES - Early Intervention Framework - Promoting First Relationships (PFR)</p>	<p>Parents and caregivers of infants and toddlers 0–3 years of age, families at high risk of attachment disruption and with parents who themselves have experienced physical abuse</p>	<p>To improve the parent–infant relationship through enhanced parental sensitivity.</p>	<p>Targeted at risk group</p>	<p>Individual home-visiting programmes are covered through guided reflection on videotaped interactions between the caregiver and child, as well as through the use of parental handouts and infant cue cards.</p>	<p>Improves child emotional regulation and increases toddlers' secure base behaviours through positive change in the parent–child relationship because of enhanced parental sensitivity.</p>
<p>Solihull Approach Antenatal Parenting Group NES – Early Intervention Framework – Solihull Approach Antenatal Parenting Group</p>	<p>Anyone expecting a baby and anyone around the mother wishing to build a strong healthy relationship with their infant.</p>	<p>To gain understanding of pregnancy, labour, birth and the baby in a universal group for anyone expecting a baby and for anyone around the mother wishing to build a strong healthy relationship with their infant.</p>	<p>Universal prevention</p>	<p>The programme is delivered in a group setting over a 5-week journey and can also be accessed online, covering nine modules. Ten to twelve parents are invited to attend each group. The programme provides practical information about pregnancy and birth</p>	<p>Increased feelings of attachment, decreased anxieties, an increased intention to breastfeed and a sense of closeness between parents and the infant .</p>

EIF Early Interaction Foundation [Guidebook – Foundations](#) (grade 3 or higher)

NHS Early Intervention Framework [NES – Early Intervention Framework – Search](#) (grade 3 or higher)

CEBC [CEBC » Registry](#) (1-2 (reverse scale))

Blueprints for Healthy Youth Development [Blueprints Programs – Blueprints for Healthy Youth Development](#) (model or higher)

Appendix 5. Template for the documentation of national expert discussions

Subject 1. Needs

1. What identified risk or protective factors should be prioritized in identifying and addressing psychosocial support needs during the perinatal period now and in the future?

Which currently recognized factors must be covered at minimum to ensure adequate support?

What emerging needs or phenomena might arise over the next years that could significantly impact psychosocial wellbeing?

Is there a specific factor or issue that stands out as critical from a national perspective in terms of impact or importance?

Summary of national discussion:

Subject 2. Gaps

2. What gaps remain in our understanding of risk and protective factors in perinatal period, and which ones are nationally critical to address?

Which key perinatal factors were identified in the report, and which were overlooked or underrepresented?

Are there any phenomena or factors that, although not currently recognized, are likely to be significant in shaping psychosocial wellbeing (either risks or protective elements)?

Are there validated interventions missing from the current mapping?

Summary of national discussion:

Subject 3. National issues

Are there specific populations that require targeted support?

Summary of national discussion:

Appendix 6. Limitations

This report is grounded in literature and intervention searches focusing on psychosocial risk factors and psychosocial support. Due to the specificity and breadth of the topic, certain important areas, such as low birth weight or prematurity, feeding difficulties and adolescent pregnancies, have been excluded.

Despite the extensive body of research on the impact of prematurity on parent–child interaction, this topic was excluded from the present review. From an intervention standpoint, prematurity is typically addressed within specialised healthcare settings and involves complex, multidisciplinary expertise. In this review, the focus is on areas more amenable to low-threshold psychosocial support and preventive approaches.

The significant impact of feeding difficulties on parent–child interaction and the broader psychosocial well-being of the family is well recognised. However, challenges related to feeding often require the expertise of specialised healthcare professionals or multidisciplinary teams. For this reason, feeding-related issues were also excluded from the scope of the present review.

In the Nordic countries, the adolescent birth rate is low, which is why this review does not include a specific focus on adolescent motherhood. It is important to acknowledge that in some countries, including those with high-income economies, the birth rate among young mothers is significantly higher. In such contexts, various psychosocial support interventions have been developed and implemented to address the specific needs of young mothers.

While the COVID-19 pandemic had an impact on perinatal mental health, its effects are considered context-specific and time-bound. Including COVID-19-related studies could have introduced confounding factors that are not generalisable to non-pandemic conditions. The aim of this review was to identify risk and protective factors relevant to more stable and enduring healthcare and social service contexts, rather than those shaped by an exceptional global crisis. However, there is clear evidence on how the lockdowns caused by COVID-19 had a negative impact on perinatal mental health, highlighting the need for support systems in situations where normal daily life is disrupted to prevent the potential long-term effects of poor maternal mental health on infants (Wall & Dempsey, 2023).

An inclusion criterion for the search was publication in the English language. This ensured equality between the Nordic languages but may also have distorted the results in terms of the research conducted in the Nordic countries.

This review is based exclusively on meta-analyses and systematic reviews, rather than individual studies. The scope was narrowed to specific topics, excluding areas such as pandemic-related issues and feeding difficulties. A notable limitation is the lack of Nordic meta-analyses, which restricts opportunities to combine cohort data and deepen understanding of this population.

The review does not include experiential knowledge from families themselves, even though such perspectives are essential for identifying barriers to care. Furthermore, the interconnected nature of risk factors and the somewhat artificial fit into predefined domains may oversimplify complex realities. From a decision-making perspective, these limitations highlight the need for more integrated evidence, the inclusion of family experiences and region-specific analyses to inform effective policy and practice.

Most of the studies included in this review primarily focused on maternal perspectives. Although this literature review covers a wide range of risk and protective factors during the perinatal period, there are certain areas it does not address. One of the challenges in perinatal research is obtaining direct data on infants and toddlers due to their young age, which limits the scope of this review to a parent-centred perspective. While it is a valid starting point to assume that the well-being of parents is crucial for the well-being of the infant and that protective factors for parents are also relevant for the child, this review does not take into account other important aspects that are essential for infant well-being. Factors such as a generally safe and nurturing environment, consistent routines and other secure relationships are also crucial for the infant's development and well-being, yet they fall outside the scope of this review. Early childhood education as a growth environment for young children was also excluded from the search. The search terms only partially captured the literature on interaction and early relationships. Although the search was later expanded, the authors feel that the literature reviewed does not provide a completely clear or comprehensive picture of the significance of early interaction and attachment for psychosocial well-being.

Although some research on the effectiveness of psychosocial interventions or approaches emerged in the literature, it should be noted that no separate searches were conducted specifically for psychosocial interventions; rather, these findings surfaced through the broader review process. The psychosocial intervention portal search was limited to certain information portals. There are also other organisations that collect information on interventions and assess their effectiveness, but in this review, we chose to emphasise evaluations conducted through Nordic collaboration and to use the most comparable assessment systems. The evaluation systems differ, and their effectiveness scales vary, which may introduce a risk of inconsistency in our assessment. To broaden the perspective and consider the potential implementation of international methods, well-recognised UK and US evaluation frameworks were also included. However, it is possible that some methods already implemented in the Nordic countries have not been assessed in the systems we reviewed or have not received sufficiently high effectiveness ratings. It is highly challenging to know exactly which interventions have been implemented across different regions and organisations. Our aim was to highlight those with researched evidence and that have undergone a systematic evaluation process. A key limitation of the report is that its preparation involved reviewing a vast and diverse body of material (including literature, an intervention mapping exercise, expert opinions and, as a supplement, international recommendations) within a relatively short time frame. The broad scope and limited preparation time increase the risk that the analysis and synthesis may remain somewhat incomplete, and that not all connections between phenomena or nuances offered by the data will be fully apparent.

Add Appendix 7. Abbreviations

ACE	Adverse Childhood Experiences
ADHD	Attention Deficit Hyperactivity Disorder
AI	Artificial Intelligence
AND	Antenatal Depression
ANRQ	Antenatal Risk Questionnaire
BMI	Body Mass Index
CBT	Cognitive Behavioural Therapy
CEBC	California Evidence-Based Clearinghouse for Child Welfare
COPE	Centre of Perinatal Excellence
COVID-19	Coronavirus Disease
CPTSD	Complex Post-Traumatic Stress Disorder
CS	Caesarean Section
EBP	Evidence-Based Practice/Intervention
EIF	Early Intervention Foundation
EMDR	Eye Movement Desensitization and Reprocessing
EPDS	Edinburgh Postnatal Depression Scale
EPIS	Exploration, Preparation, Implementation, Sustainment – framework
FASD	Fetal Alcohol Spectrum Disorders
GAD	Generalised Anxiety Disorder
ICD-11	International Classification of Diseases (11th Revision)
IPT	Interpersonal Therapy
IPV	Intimate Partner Violence
LGBTQ	Lesbian, Gay, Bisexual, Transgender, Queer
LGTBQ	Variant of LGBTQ (same meaning)

NCCMH	National Collaborating Centre for Mental Health
NICE	National Institute for Health and Care Excellence
NICU	Neonatal Intensive Care Unit
OCD	Obsessive–Compulsive Disorder
PD	Panic Disorder
PMADs	Perinatal Mood and Anxiety Disorders
PMH	Perinatal Mental Health
PRISMA	Preferred Reporting Items for Systematic Reviews and Meta-Analyses
PSPT	Pregnancy-Specific Psychological Trauma
PTSD	Post-Traumatic Stress Disorder
PTSS	Post-Traumatic Stress Symptoms
RCPsych	Royal College of Psychiatrists
RCT	Randomized Controlled Trial
SBU	Swedish Agency for Health Technology Assessment and Assessment of Social Services
SMI	Serious Mental Illness
TFPT	Trauma-Focused Psychological Therapies
UNICEF	United Nations Children’s Fund
WHO	World Health Organization

Statement on the Use of Artificial Intelligence: Artificial intelligence (AI) tools were used in limited parts of this work to support the combination and organisation of certain materials. Microsoft 365 Copilot (organization-licensed version) was used only within the organisation’s internal Teams environment for text formatting and structuring. AI-assisted methods were also applied to help with the classification of selected content and to provide preliminary language translation. The AI tool has no authorship and does not replace the author’s judgment. All final analyses, interpretations and conclusions were conducted and validated by the authors.

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Co-authors: Kaukonen, R.-M., Paavola, J., Aalto-Setälä, T.

Research assistant: Sissonen, E.

Contributors: Berg-Olstad, I., Ingudóttir, J., Jonsson, A.-C., Riekkilä, T., Skovgaard Væver, M., Slinning, K., Sommarin, C., von Folsach, L.

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Nordens Hus

Ved Stranden 18, DK-1061 Copenhagen

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