

**'It's about developing a trustful relationship'**

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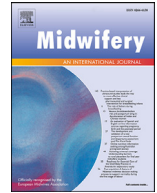
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# 'It's about developing a trustful relationship': A Realist Evaluation of midwives' relational competencies and confidence in a Danish antenatal psychosocial assessment programme

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## ABSTRACT

**Objective:** to explore how contextual conditions influence midwives' relational competencies, ability and confidence to undertake psychosocial assessment of pregnant women and their partners during the first antenatal consultation that identifies expectant parents in vulnerable positions.

**Design:** a realist evaluation carried out through three phases: 1) development 2) testing and 3) refinement of programme theories. Data was generated through realist interviews and observations.

**Setting:** nine community-based and hospital-based midwife clinics in the North Region of Denmark.

**Intervention:** a dialogue-based psychosocial assessment programme in the the North Region of Denmark was evaluated.

**Participants and data:** 15 midwives were interviewed and 16 observations of midwives undertaking psychosocial assessment during the first antenatal consultation were conducted.

**Findings:** contextual conditions at multiple levels which supported midwives' relational competencies, autonomy and the power of peer reflection—and thus facilitation of a woman-centred approach and trust—were identified, i.e., being experienced, having interest, organisational prioritisation of peer reflection and flexibility. Where midwives lacked experience, competency development regarding psychosocial assessment, opportunities for peer reflection and autonomy to individualise care for expectant parents in vulnerable positions, the approach to assessment tended to become institution-centred which caused a distant dialogue and instrumental assessment which potentially harmed the midwife-woman/couple relationship.

**Conclusion:** midwives' ability and confidence to undertake psychosocial assessment were affected by whether individual and organisational contextual conditions empowered them to assess and care for expectant parents within a philosophy of woman-centred care. Accordingly, development of trustful midwife-woman/couple relationships – which is essential for disclosure – was achievable. These conditions become fundamental for securing quality of antenatal care for expectant parents in vulnerable positions.

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## Introduction

Expectant parents in psychosocial vulnerable positions, characterised as living with imbalances between psychological and social risk factors as well as protective factors (de Groot et al., 2019; Scheele et al., 2020), are at increased risk of adverse birth outcomes which may affect both maternal and child health

as well as parent-infant attachment (de Graaf et al., 2013; Norhayati et al., 2015) and potentially produce social inequality in health (Bilsteen et al., 2018; Kramer et al., 2000). Several psychosocial risk factors (Biaggi et al., 2016; Braveman et al., 2010; Goldenberg et al., 2008; Kim et al., 2018; Norhayati et al., 2015), e.g., former abuse (Biaggi et al., 2016), and protective factors, such as social support and coping skills (de Groot et al., 2019; Scheele et al., 2020), can contribute to or shield vulnerability. Early identification of vulnerability and referral to supportive interventions is crucial (Morrison et al., 2014). The World Health Organization (2016) and other researchers

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(Redshaw and Henderson, 2016) have emphasised the essential role of midwives in this process.

Over the past decade, assessment programmes aiming to assess psychosocial vulnerability factors among expectant parents have been developed in order to identify those in need for additional support and targeted services (Amuli et al., 2021; Johnson et al., 2012; Quispel et al., 2012). Dialogue-based assessment programmes include face-to-face assessment by a midwife with usage of an open-ended and communicative enquiry (The North Denmark Region, 2017; Bernazzani et al., 2005; Kohlhoff et al., 2021; NSW Department of Health, 2009). This approach is considered essential when assessing psychosocial vulnerability as it has been shown to facilitate trust between women/couples and midwives (Schmied et al., 2020). Facilitating trust is crucial as trustful relationships supports security and fosters confidence among expectant parents in psychosocial vulnerable positions enabling them to share sensitive information. This, in turn, permits midwives the ability to undertake adequate psychosocial and needs assessments (Fernandez Turienzo et al., 2021; Megnin-Viggars et al., 2015). Dialogue-based assessment enables consideration of vulnerability as a subjective phenomenon which depends on lived experience and perception of self to encompass resources that allow for the coping of challenges (Spiers, 2000). Vulnerabilities beyond external assessment of risk factors can thus be identified.

The quality of dialogue-based assessment depends on midwives' professional approach and communication skills and thus on their relational competencies. This includes midwives' ability to approach expectant parents in a reassuring and non-judgmental way (Frederiksen et al., 2021b; Megnin-Viggars et al., 2015). Approaching parents in this manner allows for both development of mutual trust (Kirkham, 2010b) and a sense of security that allows for disclosure (Rollans et al., 2013b). If these elements are not in place, assessment may evoke feelings of fear and stigmatisation (Frederiksen et al., 2021b; Jakobsen and Overgaard, 2018). However, lack of confidence and feelings of inadequacy regarding psychosocial assessment exist among some midwives in relation to asking sensitive questions and supporting expectant parents in vulnerable positions (McCauley et al., 2011; Noonan et al., 2018; Rollans et al., 2013a).

A dialogue-based approach complies with the philosophy of midwifery care described as an individualised, non-authoritarian and emancipatory approach (International Confederation of Midwives, 2014). This approach is characterised as woman-centred (Fontein-Kuipers et al., 2018) and is focused on a trustful (Kirkham, 2010b), collaborative relationship between the woman/couple and midwife (Fontein-Kuipers et al., 2018). Within the philosophy of woman-centred care, relational competencies are core competencies for midwives and entail unconditional compassion and the ability to listen with all senses (Leap, 2010; Ménage et al., 2017). These competencies become particularly critical when caring for expectant parents in vulnerable positions (Leap, 2010), as this requires that midwives' offer parents the capability to feel a sense of security (Fletcher et al., 2021; Frederiksen et al., 2021b; Raine et al., 2010; Rollans et al., 2013b).

Contextual conditions are important to consider as they play a determining role on how programmes bring about change (Pawson and Tilley, 1997). In relation to psychosocial assessment programmes, contextual conditions, referring to the circumstances in which a programme is implemented (Pawson and Tilley, 1997), influence midwives' ability and confidence to provide adequate care (Kirkham, 2010a, 2015; McCauley et al., 2011) and therefore impact how psychosocial assessment programmes bring about change. Context range from contexts at a proximal level to contexts at a more structural level and triggers how a programme work (Pawson and Tilley, 1997). E.g., lack of resources such as time; can be seen as an organisational context that impairs mid-

**Table 1**  
The antenatal programme.

<b>Setting</b>	All three maternity units in the North Region of Denmark. Midwives deliver antenatal care in a mix of community-based and hospital-based clinics of variable sizes. A few offer continuity of ante- and intrapartum care. In the larger midwifery clinics, pregnant women with known psychosocial risk are allocated a specialised midwife.
<b>Assessment for psychosocial vulnerabilities</b>	Dialogue-based assessment for psychosocial vulnerability factors carried out by a midwife via usage of an interview guide (supplementary file 1) consisting of open-ended questions at the first antenatal consultation in week 15–18. The women and her partner (if any) are interviewed together. Present or former complex social, medical or psychological challenges, e.g., lack of social support, chronic pain diseases or mental health issues, are some of the major types of vulnerability factors in focus. If concerns about the unborn child's welfare arise, midwives have duty to report this to social services.
<b>Supportive interventions</b>	If vulnerability factors are identified, expectant parents are referred to a team meeting with the midwife and a health visitor to discuss the woman/couple's needs for support, ensuring individualised, supportive services are offered. A home visit by a health visitor is also often offered. The type of services and level of continuity of care provided varies between the municipalities. Services range from; additional midwife consultations, family therapist consultations, group-based support interventions and specialised care, e.g., psychiatric treatment. Continuity in care range from; limited continuity where continuity is strived for but cannot be guaranteed, continuity in antenatal consultations and both antenatal and perinatal continuity.

wives' opportunities to provide care within a woman-centred approach (Deery and Hunter, 2010), as this approach does not comply well with highly standardised services and strict institutional requirements (Kirkham, 2010a, 2015). Lack of time may hence foster institution-centred care which highlights the complexities of implementing dialogue-based psychosocial assessment programmes. However, the role of how contextual conditions affect midwives' ability and confidence in their relational competencies regarding assessment, including which underlying mechanisms these contexts bring, has not been well studied.

The aim of this study was to explore how contextual conditions, through the triggering of certain mechanisms, may influence midwives' relational competencies within a dialogue-based psychosocial assessment programme and how this affects their ability and confidence. The study was conducted in the North Region of Denmark between 1 September 2021, and 30 June 2022, and is designed as part of a comprehensive realist evaluation of a cross-sectoral programme in the region aimed at early identification and supportive care for expectant and new parents in vulnerable positions (Table 1). The overall realist evaluation is divided into several sub studies addressing different aspects of an initial and comprehensive theorisation of how and why the cross-sectoral programme may bring about change and achieve its outcomes (Aalborg University's research portal). Besides this present sub study, the comprehensive realist evaluation also includes sub studies focusing on; parent experienced effects, trust building in the context of

**Table 2**  
Conceptual definition of aspects of programme theory (Pawson and Tilley, 1997).

Programme theory		
'Context + mechanisms = outcome'-configurations (CMOC's) are programme theories consisting of assumptions of how and why a programme brings about change in certain ways.		
Context (C)	Mechanism (M)	Outcome (O)
Conditions and circumstances in which a programme is inserted that triggers emergence of mechanisms.	Mechanisms are underlying causal forces activated under certain contextual conditions and generate outcomes. Mechanisms consist of resources (M-resource) provided by program components and reasoning (M-reasoning) of participants' response.	Intended and unintended outcomes generated by contextual conditions and mechanisms.

interprofessional collaboration and continuity of care, and relevant contexts and mechanisms for cross-sectoral collaboration. This sub study focusses specifically on the workings of midwives' relational competencies to undertake the psychosocial assessment programme.

**Methods**

To evaluate the program, we applied a realist methodology to obtain insight into context and underlying mechanisms of change and thus the programme's "black boxes" (Pawson and Tilley, 1997). Realist evaluation is founded in both critical and scientific realism and provides a generative understanding of causality on the assumption that context influences the outcome of programmes by triggering mechanisms (Pawson and Tilley, 1997). These mechanisms are the human reasoning and response to programme activities, by which outcomes derives (Dalkin et al., 2015). Within the paradigm of realism, reality is understood as stratified and containing real underlying generative mechanisms which account for causality (Danermark and Ekström, 2019). Programmes thus only work through these often latent mechanisms in notion of context (Pawson and Tilley, 1997). By doing this and not only determining whether a programme works, realist evaluation adds to securing and bettering the safety of a programme intentions (Pawson and Tilley, 1997). Realist evaluation makes it possible to identify potential unintended outcomes caused by the programme by identifying its "dark-logic", i.e., conditions and processes leading to unintended harmful effects (Bonell et al., 2015). Hence, realist evaluations provide decisionmakers with knowledge that can reduce potential harm caused by the programme. By utilising a realist methodology to explore the workings of dialogue-based psychosocial assessment programme, knowledge about the influence of context, by triggering certain mechanisms, is achievable. This study was informed by Pawson & Tilley's (1997) realist research cycle and consisted of a theory-driven approach led by three phases: development, testing and refinement of programme theories. Table 2 provides a definition of prominent concepts regarding programme theory.

**Phase 1. theory development**

The first step of the realist research cycle (Pawson and Tilley, 1997) consisted of thorough initial theorisation of how, why and under what circumstances the dialogue-based assessment programme might work. The initial programme theory was developed through a sub study of the comprehensive realist evaluation (Aalborg University's research portal. (n.d.). *Realist evaluation of a supportive intervention for pregnant women and new families living with psychosocial vulnerabilities*. Aalborg University's research portal. Retrieved 29 August 2022, from [https://vbn.aau.dk/da/projects/realist-evaluation-of-a-supportive-intervention-for-](https://vbn.aau.dk/da/projects/realist-evaluation-of-a-supportive-intervention-for-pregnant-wome)

**Table 3**  
Initial programme theories (CMOC) developed through phase 1: theory development.

CMOC's	Narrative representation of initial programme theories
<b>CMOC 1</b>	Being an experienced midwife (C) can make midwives feel knowledgeable and relationally competent (M-res). Midwives may then feel confident to meet and communicate compassionately with parents (M-rea). This enhances trust and enables midwives to undertake systematic and qualified identification of expectant parents in vulnerable positions (O)
<b>CMOC 2</b>	Having particular interest in vulnerability (C) can provide midwives with knowledge and relational competencies (M-res). Midwives may then feel confident to meet and communicate compassionately with parents (M-rea). This enhances trust and enables midwives to undertake systematic and qualified identification of expectant parents in vulnerable positions (O)
<b>CMOC 3</b>	Political and organisational prioritisation of qualifying competency development regarding psychosocial assessment and supervision for midwives (C) can provide increased knowledge and relational competencies (M-res) Midwives may then feel confident to meet and communicate compassionately with parents (M-rea). This enhances trust and enables midwives to undertake systematic and qualified identification of expectant parents in vulnerable positions (O)
<b>CMOC 4 (Dark logic)</b>	Being a novice as well as lack of training and supervision (C) may contribute to lacking competencies to act (M-res). Midwives may feel inadequate, stressed and lacking in confidence which leads to the approach to assessment becoming mechanical (M-rea), potentially resulting in unsupportive encounters (O)
<b>CMOC 5</b>	Sufficient time for assessment (C) provides enough time (M-res) for midwives to be present and provide individualised care (M-rea). This enhances trust and enables midwives to undertake systematic and qualified identification of expectant parents in vulnerable positions (O)
<b>CMOC 6 (Dark logic)</b>	Insufficient time for assessment (C) may cause midwives to hurry through assessment (M-res), which induces feelings of inadequacy, lack of confidence and stress leading to the approach to assessment becoming mechanical (M-rea), potentially resulting in unsupportive encounters (O)

CMOC = 'context + mechanisms = outcome'-configuration is a programme theory consisting of assumptions of how and why a programme brings about change. C = contextual condition which triggers certain mechanism(s), M-res = resource mechanism provided by programme components. M-rea = reasoning mechanism emergent from participants response. O = intended and/or unintended outcome(s).

[pregnant-wome](#)). The present study immersed the initial assumptions which specifically concern midwives' relational competencies. Validation and further theorisation of these assumptions was informed by a literature review. See Table 3 for narrative representation of initial CMOC's.

**Table 4**  
Overview of characteristic of participants in interviews and observations for phase 2.

Participant	Model of care (within programme)	Years of midwifery experience	Years of experience with the programme	Received programme-specific training at its commencement	Others
MW_1 <sup>a</sup>	Hospital and community-based	31–40	≥5	+	
MW_2 <sup>a</sup>	Hospital and community-based	6–10	2–4	-	
MW_3 <sup>b</sup>	Hospital-based	6–10	≥5	+	
MW_4 <sup>b</sup>	Community-based	3–5	2–4	-	
MW_5 <sup>b</sup>	Community-based	31–40	≥5	+	Midwife in vulnerability specialised clinic
MW_6 <sup>b</sup>	Community-based	11–20	≥5	+	Midwife in vulnerability specialised clinic
MW_7 <sup>b</sup>	Community-based	3–5	2–4	-	
MW_8 <sup>a</sup>	Hospital-based	31–40	≥5	+	Midwife in vulnerability specialised clinic
MW_9 <sup>b</sup>	Community-based and continuity of care	21–30	≥5	+	
MW_10 <sup>a</sup>	Community-based	6–10	0–1	-	
MW_11 <sup>a</sup>	Community-based and continuity of care	6–10	≥5	+	
MW_12 <sup>b</sup>	Community-based and continuity of care	11–20	≥5	+	
MW_13 <sup>a</sup>	Community-based and continuity of care	3–5	2–4	-	
MW_14 <sup>b</sup>	Community-based and continuity of care	3–5	0–1	-	
MW_15 <sup>a</sup>	Community-based	6–10	2–4	-	Midwife in vulnerability specialised clinic

<sup>a</sup> Interview only.

<sup>b</sup> Interview and observation(s).

- Have not received specific training.

+ Have received specific training.

\* Attended one-day competency development course held four years after programme implementation.

## Phase 2. theory testing

This phase consisted of testing whether the initial assumptions could be substantiated empirically. Data collection was undertaken from November 2021 to February 2022 by the first author at community-based and hospital-based midwife clinics in all three maternity units in the North Region of Denmark. The perspective of the researcher was theory-driven which includes theory derived by the initial programme theories and by the iterative refinement of the theories throughout data collection. Midwives were considered key informants as frontliners and thus experienced programme promoters and barriers (Manzano, 2016; Pawson and Tilley, 1997). We undertook a purposeful sampling strategy combined with snowball strategy and; use of social media announcement. Participation in both interview and observations was optional. It appeared however that some midwives who lacked confidence conducting the psychosocial assessment hesitated to participate. This was particularly present for those who were novice. Therefore, we visited midwife clinics to encourage participation in order to establish sufficient data collection. We recruited a breadth of midwives representing different maternity units to ensure capturing various perspectives (Manzano, 2016). We assumed that midwives from different settings have different experiences with the programme due to varying organisational contextual conditions. Midwives with varying levels of experience were recruited; however, we were not able to recruit midwives who were novice in general midwifery. Some midwives indicated this was due to lack of confidence. Chief midwives provided access to the field and worked as gatekeepers.

A total of 15 midwives from nine midwife clinics across the region participated in online interviews in their working hours. 16 observations of eight midwives undertaking psychosocial assessment were conducted in five different midwife clinics (Table 4). Interviews were audiotaped and transcribed verbatim, and field notes were obtained during and/or after observations. Written informed consent was obtained from participating midwives and observed expectant parents.

Interviews were conducted as qualitative realist interviews allowing for identification of 'contextually grounded explanatory mechanisms' (Manzano, 2016, p. 346). A semi-structured interview guide was constructed to test explicit assumptions within the initial programme theory while allowing us to potentially explore

the unexpected, which did not emerge during theory development. The programme theories were operationalised before testing; however, theory has a deep structure (Pawson and Tilley, 1997). Hence, the interview followed a *teacher-learning-cycle*, and attention was paid to language and the explanatory structure embedded in the researchers' theories presented as recommended by (Pawson and Tilley, 1997). Through this learning cycle, the researcher takes the position as CMO-expert whereas the informants are mechanisms-experts (Pawson and Tilley, 1997). Hereby, mutual understanding of how the programmes works could emerge and the theories could be tested (Pawson and Tilley, 1997). Observations of midwives undertaking assessment were concurrently conducted to test assumptions when relational competencies naturally unfolded, facilitating deeper understanding of essential mechanisms within specific contextual conditions (Handley et al., 2020). Afterwards, descriptive field notes were conducted, focusing on midwives' relational competencies, including how the midwives approached, communicated and managed the consultation. Observations additionally contributed to triangulation of the emerging findings (Merriam & Tisdell, 2015).

## Phase 3. Theory refinement

All data from interviews and field notes were prepared for analysis in NVivo (Release 1.5.2) for Windows. Theory refinement was done through theory-driven analysis of data using linked coding (Jackson and Kolla, 2012), whereby dyads and strings of CMOc's across data were coded deductively. This was possible since interviews were conducted using realist interviewing technique (Manzano, 2016), whereby data consisted of whole CMOc narratives. Field notes were coded and analysed against the programme theories. Coding was combined with a memo technique inspired by Gilmore et al. (2019), whereby analytical thoughts and decisions regarding coded quotes of CMOc's, e.g., theory refinements, were obtained whilst coding. This secured rigour and transparency in the analytical process. See Table 5.

Retroductive theorising was applied to explore ontological depth by adapting a "why are things the way they are?"-lens (Jagosh, 2020, p. 121); analysing both how context and mechanisms within the programme are linked and how this explains how the programme brings about change. Active reflection within the research team was undertaken during the analysis process for the

**Table 5**  
Coding example.

Coding approach	Coding	Further explanation
<b>Linked coding</b> (Jackson and Kolla, 2012)	<b>Quote:</b> "One thing that is a major challenge <i>is time. And if we're pressured and they [expectant parents] come in, then we set mechanically to work (...)</i> because then we've something we must accomplish (C) (...) then they might not get the same (...) you might seem more interested in typing on the computer, although it's not the case (...) I don't know how the couples perceive it, but I think that if it was me who was sitting there, I would perceive it as someone who was sitting and asking to take notes in the medical journal 'She types about that/ What does she think?'" (Q)	As suggested by Jackson & Kolla (2012), context is marked with <i>italic</i> , mechanism with <b>bold</b> and outcome with <u>underline</u> .
<b>Memo technique</b> (Gilmore et al., 2019)	<b>Analytical thought:</b> Because of workload, pressure of time can emerge, inducing the midwife's relational approach to become instrumental. The midwife interprets that this might be perceived as interrogating by expectant parents. This refines the initial programme theory CMOc 6 regarding time, as workload shows as a further underlying context influencing time, which was not initially theorised.	

**Table 6**  
Refined programme theories (CMOc).

CMOc's	Narrative representation of refined programme theories
<b>CMOc 1a</b> Being experienced	Being experienced with midwifery in general and in psychosocial assessment (C) endows midwives with relational competencies, knowledge, routines and case-experience (M-resource). This fosters confidence to meet and communicate compassionately with parents (M-reasoning). A trustful midwife-woman/couple relationship can thus be established, and systematic and qualified identification of vulnerability and referral to supportive services can be achieved (O).
<b>CMOc 1b</b> Lacking experience	When inexperienced, (C) midwives may lack relational competencies and former case experiences (M-resource) which may lead to lack of confidence and feeling uncomfortable in undertaking assessment. Hence, assessment is conducted in an instrumental, distant and superficial manner or not at all (M-reasoning). This may lead to encounters becoming unsupportive by which identification of vulnerability and referral to supportive interventions fails (O).
<b>CMOc 2</b> Having interest	Having a particular interest in vulnerability and relational work (C) impacts midwives' relational competencies (M-resource) so they instinctively meet and communicate compassionately with parents and dare to ask sensitive questions (M-reasoning). A trustful midwife-woman/couple relationship can thus be established and systematic and qualified identification of vulnerability and referring to supportive interventions can be achieved (O).
<b>CMOc 3</b> Lack of competency development	When organisational prioritisation of midwives' competency development is lacking (C), competencies of action and thus a woman-centred approach is limited (M-resource). This activates role unclarity and feelings of inadequacy. Hence, the assessment is undertaken in an instrumental, distant and superficial manner or not at all (M-reasoning), leading to encounters becoming unsupportive by which identification of vulnerability and referral to supportive interventions fail (O). <i>This is further triggered when midwives are inexperienced (C).</i>
<b>CMOc 4</b> Prioritising peer reflection	Viable organisational conditions (C) can induce reflection between colleagues increasing midwives' relational competencies (M-Resource) as well as role clarity and thus confidence to meet and communicate compassionately with parents (M-reasoning). A trustful midwife-woman/couple relationship can thus be established, and systematic and qualified identification of vulnerability and referral to supportive services can be achieved (O).
<b>CMOc 5a</b> Flexibility to meet expectant parents' needs	Organisational opportunities for flexibility in a time pressured working environment due to heavy workload (C) allows midwives sufficient time and autonomy (M-resource) to feel in control of their own consultation and thus able to meet and communicate with parents compassionately (M-reasoning). A trustful midwife-woman/couple relationship can thus be established, and systematic and qualified identification of vulnerability and referral to supportive interventions can be achieved (O). <i>This is further promoted when midwives are experienced (C).</i>
<b>CMOc 5b</b> Workload becoming overwhelming	Heavy workload within and besides psychosocial assessment (C) leaves midwives with insufficient time (M-resource) by which they feel pressured and stressed. Hence, assessment is undertaken in an either instrumental, distant and superficial manner or not at all (M-reasoning). This leads to encounters becoming unsupportive by which identification of vulnerability and referral to supportive interventions fails (O). <i>This is further triggered when midwives are inexperienced (C).</i>

purpose of discussing whether data supported, refined or refuted programme theories.

## Results

This section presents the most salient of the refined programme theories identified. These theories (Table 6) explain how contextual conditions influence midwives' relational competencies, including ability and confidence to undertake psychosocial assessment including when this failed or was less successfully achieved. We present theories explaining the influence of individual conditions (CMOc 1a-2) and then organisational conditions (CMOc 3-5b).

### CMOc 1a. Being experienced

Midwives who felt experienced expressed that they gradually gained relational competencies including knowing how to communicate verbally and non-verbally during assessment by, e.g., 'turn-

ing the computer screen towards both midwife and woman so medical record keeping is conducted within a partnership' (MW\_5, observation). Relational competencies were gained by midwives when they became familiar with assessment through several cases and by reflection upon own practice. They gained routines within consultations progressively which affected how and when they assessed. Similarly, experiences with general midwifery, e.g., labour ward work, entailed professional robustness which promoted competencies and confidence. Experience made midwives feel knowledgeable, confident and self-assured when asking sensitive questions. They thus approached expectant parents with compassion and used meta communication, consisting of telling and conversation with the expectant parents about the purposes of assessment and their own thoughts, and showed symmetry in the relationship through improvised dialogue. This approach allowed for connection, openness and sharing between midwives and parents which allowed for the establishment of trustful relationships. Experience

thus conduces midwives' ability and confidence to provide woman-centred care when undertaking psychosocial assessment:

(...) [being experienced] could mean that you have a different kind of calm and that you're not in doubt about everything because you gradually get some experience to lean on. So, the fact that everything isn't all new can mean that you have somehow found a way to say things, or work around it [assessment] without necessarily being completely mechanical (...) you might be able to do it a bit more like a conversation, so it doesn't feel like such a big interrogation to them [parents] either.

(MW\_6)

Although several midwives explained that experience enhanced their ability and confidence, some found experience in itself inadequate. Other enhancing contextual conditions thus become crucial to securing midwives possessing sufficient relational competencies and confidence.

### CMOc 1b. Lacking experience

Midwives explained that when they were inexperienced with assessment, they lacked competencies and confidence and felt uncomfortable asking expectant parents sensitive questions in the interview guide during assessment. This was particularly true of the newly graduated. Some midwives experienced feeling their personal boundaries being violated. When pressured to keep up with institutional demands, e.g., fulfilling medical recording, they felt compelled to undertake assessment as a standardised survey. This meant that some felt that they should do one item of the interview guide after the other or that they had to deprioritise either assessment or other activities scheduled for the first midwife consultation:

(...) when you're a newcomer, you just get a whole lot of tasks (...) if you're also completely a novice and must master all procedures from day one – because you don't want to be the one who overlooked that one [woman] who should've had a scan in week 36 simultaneously with trying to find your own way in this interview [assessment] (...) In that case, the interview comes in second (...) We have the recipe [interview guide], and then we can just follow it.

(MW\_2)

When midwives lacked experience, the needs of institution could become overwhelming, causing midwives approaching expectant parents in a more distant and superficial manner. In contrast, being more experienced enables the dialogue to be compassionate and hence more woman-centred:

(...) previously, I was very occupied with the [PC] screen; (...) asked questions and wrote and wrote. There was more connection between me and the screen than between me and the couple. Now, I put it all aside, and instead, I sit and talk, a conversation (...) and then, I undertake the assessment alongside with that. And I feel like it gets easier and less awkward than it was before. And that, I think, comes gradually with experience. Or I know it comes gradually with experience.

(MW\_15)

Psychosocial assessment works, among others, in the context of midwives' level of experience, as this activates mechanisms of achieving a more natural and compassionate approach when undertaking psychosocial assessment as opposed to an instrumental dialogue caused by feelings of confidence and adequacy. This can contribute to expectant parents developing trust in the midwife because the dialogue is sincere, not interrogating.

### CMOc 2. Having interest

The ability and confidence to undertake assessment was increased when midwives had a particular interest in working with vulnerable populations and relational work in general. This interest both involved and was beyond feeling sympathy which served midwives with increased curiosity for meeting the needs of expectant parents as well as interest in gaining further relational competencies, by which they were better able to assess through a connection-building, trustful relationship:

(...) from the beginning, [I've] been incredibly interested in communicative and relational work, and probably more than in childbirths. So, I've been focusing on that during my education: what do I see different [midwives] do (...) how my own personality plays into that work (...) the fact that I've had an interest has strengthened me (...) therefore, I'm better prepared to be in this scenario.

(MW\_13)

Midwives experienced how their interest in expectant parents in vulnerable positions gave the midwives confidence to ask sensitive questions:

I've got huge sympathy for most of the vulnerable (...) I think they can sense that (...) that I also dare to enquire into these things (...) I believe that those [midwives] who might not as easily feel sympathy for them might find it more overwhelming to ask these questions.

(MW\_1)

When midwives feel secure while undertaking psychosocial assessment, it enables trustful midwife-woman/couple relationships which is crucial for expectant parents to feel safe when disclosing experiences. Additionally, some midwives explained that having a particular interest made them more willing to explore opportunities for referral to supportive interventions within their municipality to enhance individualised care; hence, interest facilitates woman-centred care.

### CMOc 3. Lack of competency development

Although development of midwives' competencies to undertake assessment is a part of the political agreement behind the programme ([The North Denmark Region, 2017](#)), the evaluation showed that the standard of two annual courses provided by organisational stakeholders had not been met. Instead, two courses had been offered over a five-year period. A midwife employed after programme implementation described how lacking training affected her experience while a novice:

(...) when I started as consultation midwife, I was a bit anxious about undertaking the assessment, and mostly, all the other midwives have been on some training [course] (...) I had a feeling of being left with a survey in my hands and not having any tangible resources [to complete it] (...) I felt it was very uncomfortable in the beginning. And mostly because I felt I became a psychologist without being a trained psychologist. I felt I lacked some competencies (...) And in a way, I can still feel that sometimes because some women and couples in this municipality might tell [me] something where I don't know whether I'm re-traumatising them because I'm not trained to know how close I can go (...)

(MW\_13)

Sustained feelings of inadequacy and anxiety are activated when midwives lack clarity about their role. Lack of training additionally contributes to unawareness of possible referral pathways and uncertainty regarding how to adequately utilise the interview

guide and thus contributes to feelings of discomfort and meaninglessness.

#### CMOc 4. Prioritising peer reflection

Peer reflection, consisting of two or more midwives sharing reflections and experiences with each other in relation to the assessment programme, was crucial for midwives to achieve relational competencies and for enhancement of role clarity. Midwives' confidence was enhanced which affected their approach when assessing. In the political agreement mentioned above, there is no political prioritisation of peer reflection. Local prioritisation and organisational conditions, which varied across the region, thus became critical. Midwives who worked on wards where shared breaks were prioritised had better opportunities for non-formal sparring than midwives working in rushed wards or in single midwife clinics. The researcher observed that consultation midwives and labour ward midwives met during lunch where non-formal sparring occurred. This fostered security and increased confidence in the ability to provide supportive care for expectant parents in vulnerable positions:

There is a cosy atmosphere across the lunch table when a woman, who is devastated and very concerned about being pregnant, calls one of the labour midwives. After hanging up, one of the consultation midwives seems challenged and in doubt about the best way to meet the needs of the woman. A non-formal yet professional conversation emerges among the midwives. After the break, the woman calls the midwife, and this time she appears remarkably more comprehended and able to support the woman

(MW\_3, observation)

Formal supervision increased midwives' confidence through self-reflection with colleagues in similar positions. A midwife who worked in a specialised team for expectant parents with psychosocial vulnerabilities and therefore had a specialised supervision group describes this:

(...) you think 'am I doing it right?', and there are some colleagues who do it the same way as well, then you think 'okay, I'm not completely wrong' (...) it makes you more confident that what you're doing, you're doing right (...) The supervisions contribute to this too (...)

(MW\_15).

Opportunities for supervision were not similarly available across municipalities. For example, some midwives working in standard consultation wards must share supervision with midwives working entirely in maternity wards or during maternity leaves. Difficulties concerning assessment were therefore less likely exposed during supervision. Some midwives declined supervision to avoid further workload due to supervision not being counted as normal working hours. Local prioritisation and organisational conditions regarding peer reflection is hence a significant context facilitating midwives' confidence and ability to meet the needs of expectant parents and can thus promote midwife-woman/couple relationships.

#### CMOc 5a. Flexibility to meet expectant parents' needs

Time is an evident mechanism within a working environment with heavy workloads that contain compact caseload, procedures, medical record keeping and other ongoing interventions in addition to the psychosocial assessment. Time influences midwives' abilities to meet and communicate with parents in an empathetic, acknowledging manner. Organisational opportunities for flexibility thus impact the ability to approach woman-centred and ultimately reaching trustful midwife-woman/couple relationships:

(...) if you have to meet the individual where the individual is, you need time to figure out where that person is, what are her or his challenges, where do they have resources which can strengthen them. And that's a task which takes time

(MW\_13)

Flexibility was further essential when working with parents in vulnerable positions:

the fact that you have the opportunity for an extra consultation is simply a precondition to be able to provide vulnerability programmes at all (...) otherwise, you cannot within the existing intervention accommodate people with vulnerability in a consultation (...) So there needs to be some flexibility (...) And if it isn't there, well, then the results fail to appear, right?

(MW\_6)

Opportunities for flexibility were enhanced for midwives who; provided antenatal care in rural midwifery clinics, worked with few other midwives and/or practiced within a continuity of care model. A midwife who worked in a continuity of care model explained:

Because we work in a continuity of care model, we have all the flexibility that we need (...) if we think she needs an extended consultation, then we can easily offer her that (...) we do have more flexibility than you have in a normal midwifery model. (...) if I have felt that we cannot complete the psychosocial assessment in an adequate way, then I've booked an extra consultation only for that, instead of opening up very sensitive matters at the first consultation.

Organisational opportunities for flexibility, e.g., supported by organisational priorities or by continuity of care model, therefore served as a significant context for this configuration by empowering midwives with enhanced autonomy and resilience to meet the needs of the woman/couple.

#### CMOc 5b. Workload becoming overwhelming

Referring to the previous configuration, opportunities for flexibility varied substantially across settings. In some clinics, midwives managed their own programmes and had options to offer additional and extended consultations for those expectant parents in need. In other clinics, midwives did not have the same degree of autonomy, placing them under increased time pressure which led to prioritisation of tasks. This increased risk of harming the midwife-woman/couple relationship and thus inhibited the capability to identify vulnerability:

(...) it's stressful to have consultations (...) Now the booking system is always in control [of the consultation] (...) that facilitates a completely different compact programme than my first years as midwife (...) it takes nothing to crash the programme. And when you have difficulties regarding prioritising between those questions ... I just cannot do it (...) We lose them [expectant parents] on the ground. Then we might rush through our consultation next time, but that's because we've lost them.

(MW\_5)

Most midwives experienced feeling pressured influencing their approach resulting in them becoming more distant and less present thus damaging the midwife-woman/couple relationship:

(...) if we're under pressure, then it [assessment] sometimes cannot be so focused on dialogue: not fluid, but more like directly asking. And here I sometimes feel that if it becomes that way, then they [expectant parents] think it's strange that we ask. So, in that way, something happens with the relationship and the good dialogue when we're under pressure, because we



change the way we ask because we don't have time to assess with open questions and more in-depth questions.

(MW\_14)

Overall, time pressure caused by institutional demands triggered feelings of being compelled to meet the needs of the institution instead of the needs of expectant parents. Accordingly, approach and communication become instrumental and potentially perceived as unsupportive by expectant parents which further inhibited the midwife-woman/couple relationships complicating identification of vulnerability. Organisational opportunities for flexibility and autonomous practice are thus crucial for midwives' abilities to meet the needs of expectant parents with compassion and for development of trust.

## Discussion

By exploring the underlying processes and mechanisms behind the influence of context, this realist evaluation offers new perspectives on current knowledge indicating that context affects midwife-woman/couple relationships (Kirkham, 2015; Newnham and Kirkham, 2019) and thus quality of care within antenatal psychosocial assessment programmes. Initial assumptions that the North Region of Denmark assessment programme would work due to certain contextual conditions supportive of trustful midwife-woman/couple relationships were tested. Whether lack of these contexts or other adverse circumstances would potentially trigger adverse outcomes, including emergence of unsupportive encounters and stigmatisation was tested. The findings demonstrate that when the programme is implemented within a context that supports the development of adequate relational competencies, autonomy and power of peer reflection among midwives, emergence of essential mechanisms is triggered (CMOc 1a; 2; 4; 5a). *Compassionate communication* was particularly identified as a crucial change mechanism which midwives experienced as decisive for development of trust and enablement of disclosure. Previous research indicating that compassionate communication is crucial for women/couples to share sensitive information about psychosocial vulnerabilities and for developing midwife-woman/couple relationships corroborates this (Mule et al., 2022; Raine et al., 2010; Rollans et al., 2013a).

Although care was generally driven by a relational approach aligned with a woman-centred philosophy, this was not entirely consistent since both the individual and organisational context varied among midwives and across clinical settings. When midwives lacked adequate competency development, opportunities for peer reflection and sufficient autonomy to individualise care (CMO 3; 4; 5b), a risk that care became driven by needs of institution rather than needs of expectant parents was observed. When midwives lacked experience, this was exacerbated (CMOc 1b). This calls for focus on access to adequate relational competency and confidence development. Reduction of time pressure and its unintended influence, which is a well-known barrier (Fletcher et al., 2021; Fontein-Kuipers et al., 2016; Schmied et al., 2020; Viveiros and Darling, 2019), through acknowledging the importance of midwives' autonomy achieved by adequate disposing of flexibility, is required. For this, CMOc 5a point out the important influence of continuity in care on midwives' opportunities for flexibility. Finlay & Sandall (2009) argue that the model of care within which midwives work contributes to increasing conflict of competing demands between meeting the needs of women/couple whilst managing bureaucratic demands. Institutional demands are likely to become overwhelming which could lead midwives to becoming 'obedient technicians' (Dykes, 2006). This can be seen occurring under stressful working conditions (Deery and Hunter, 2010) and when there is lack of control over clinical environments

(Dykes, 2006). Technical competencies, e.g., managing medical records, as opposed to relational engagement with expectant parents, are brought into focus (Deery and Hunter, 2010). This manifested as an adverse mechanism in this study which showed that midwives' approaches become distant when overwhelmed by institutional requirements as expressed via instrumental assessment or deprioritising of assessment. In turn, assessment may appear as a checklist rather than open dialogue (Higgins et al., 2016) through which feelings of stigmatisation and fear may unintendedly emerge among expectant parents (Frederiksen et al., 2021a; Jakobsen and Overgaard, 2018; Schmied et al., 2016). Furthermore, this may contribute adversely to expectant parents' feelings of security to share sensitive information whereby sufficient identification of parents' needs may fail (Mule et al., 2022). Our study showed that there is a risk of being 'with institution' instead of being 'with woman' becoming the philosophy of care. This might evoke mutual vulnerability within the midwife-woman/couple relationship, occurring when health professionals fear that their professional integrity is threatened (Angel and Vatne, 2017), e.g., if midwives lack confidence, doubt their own abilities or due to institutional demands inhibiting the provision of individualised care which is an essential part of being a midwife and considered a key element of midwives' professional integrity (Bradfield et al., 2019; Fontein-Kuipers et al., 2018). When midwives feel apprehensive during assessment due to lack of confidence or ability and when further stressed by institutional demands, a distant approach as an expression of a defence mechanism emerges which can be based in health professionals becoming vulnerable because of lack of resources needed when challenged (Angel and Vatne, 2017). For midwives, especially in the beginning of their careers, to be able to confidentially approach expectant parents in a woman-centred manner when undertaking psychosocial assessment, and thus sufficiently identify vulnerability, organisational support requirements are vital.

There is increasing national and international attention towards reducing health inequalities among pregnant women, families and children (Austin et al., 2017; National Institute for Health and Care Excellence, 2020; The Danish Ministry of Health, 2021; World Health Organization, 2016). A key element is early identification of expectant parents in vulnerable positions, as this increases early referral to supportive interventions (Reilly et al., 2013, 2014). Routine assessment programmes are crucial to reduce risks of adverse outcomes (Reay et al., 2011). While validated, structured approaches and tools to psychosocial assessment have been identified (Austin et al., 2013) the evidence base for use of dialogue-based tools is limited. However, there is growing recognition on the importance of relational approaches in antenatal assessment programmes (Armstrong and Small, 2010; Brealey et al., 2010; de Groot et al., 2019). Therefore, future research regarding early identification of expectant parents in vulnerable positions is recommended to interrogate the programme theories identified in this study to deepen the knowledge base on how dialogue-based psychosocial assessment programmes bring about change.

## Strengths and limitations

Although the initial assumptions behind the programme were generally confirmed during theory testing, the realist interviews with midwives contributed to a high degree with further nuances that enabled refinement of the programme theories. Specifically, the theories regarding influence of time were refined along with testing, and observations further revealed how midwives' approaches were strongly affected by heavy workloads. An iterative research process contributed to extensive casual insight as new aspects of programme theories were enabled for testing following data collection which evolved the realist interview questions throughout data collection.

Regardless of a thorough sampling approach to ensure capturing various perspectives, we were not able to recruit midwives who were novice in general midwifery. Some midwives indicated this was due to lack of confidence in relation to the psychosocial assessment programme. Capturing their perspectives would in all probability have elaborated on some of the programme theories. However, we assume that the lack of confidence, due to lack of experience, discovered in this study will be similar or enhanced for midwives who are novice in general midwifery.

We were not able to test all aspects of the programme theories. This study was limited to test how aforementioned configuration regarding time affects woman-midwife relationships from the perspective of midwives. We therefore recommend future research to focus on expectant parents' experiences of how and why the contextual conditions identified in this present study affects the woman-midwife relationship in relation to psychosocial assessment programmes. Accordingly, our programme theories will undergo further testing from a woman/couple perspective in a future sub-study of parent experienced effects in the comprehensive realist evaluation of the North Region of Denmark programme. We were only able to determine whether trusting midwife-woman/couple relationships induce qualified identification and referral on the basis of the midwives' own perceptions. Nonetheless, existing literature already suggests that trust and individualised care is a prerequisite for expectant parents to be open and share their lived experiences during assessments and thus to engage in care (Connell et al., 2018; Frederiksen et al., 2021a; Megnin-Viggars et al., 2015; Schmied et al., 2020). This is particularly true for expectant parents in vulnerable positions (Forder et al., 2020).

We propose that psychosocial assessment programmes, when implemented within contexts facilitating a woman-centred philosophy of care including trustful midwife-woman/couple relationships, will be more successful in terms of identification of vulnerability and referral to supportive care as this enables midwives to assess with compassion. Further research on how efficiently trusting relationships enhance identification of vulnerability and adequate referral from the perspective of parents is needed.

## Conclusion and implications for practice

This study has shown how midwives' ability and confidence to undertake psychosocial assessment is strongly affected by whether individual and organisational contextual conditions empower them to assess and care for expectant parents within a philosophy of woman-centred care by exploring the emergency of underlying mechanisms. Midwives' level of experience and individual interest as well as organisational contextual conditions in terms of adequate access to competency development, peer reflection and flexibility influence how the psychosocial assessment programme bring about both intended and unintended outcomes by enhancing or harming the midwife-woman/couple relationships. Maternity care which support woman-centredness by enhancing midwives' relational competencies and thus ability to develop trusting relationships are expected to be more successful in the context of psychosocial assessment and are therefore essential for securing quality of antenatal care for expectant parents in vulnerable positions.

## Ethical approval

According to Danish legislation, only studies or trials involving either liveborn humans or biological material can be submitted for authority approval from The National Committee on Health Research Ethics. Qualitative studies are based solely on informed written consent from participants and cannot be submitted (Danish Health Research Ethics Committee, 2018). This study was

conducted in accordance with the principles outlined in the Act on Research Ethics Review of Health Research (Danish Health Research Ethics Committee, 2018), the Helsinki declaration (The World Medical Association, 2018) and the General Data Protection Regulation Legislation (The European Union, 2016).

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## CRediT authorship contribution statement

**Clara Graugaard Andersen:** Conceptualization, Methodology, Validation, Formal analysis, Investigation, Data curation, Visualization, Writing – original draft, Visualization, Project administration. **Louise Lund Holm Thomsen:** Conceptualization, Methodology, Validation, Supervision, Writing – review & editing, Project administration. **Pernille Gram:** Conceptualization, Methodology, Validation, Writing – review & editing. **Charlotte Overgaard:** Conceptualization, Methodology, Validation, Resources, Writing – review & editing, Supervision, Project administration, Funding acquisition.

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## Supplementary materials

Supplementary material associated with this article can be found, in the online version, at [doi:10.1016/j.midw.2023.103675](https://doi.org/10.1016/j.midw.2023.103675).

## References

- Aalborg University's research portal. (n.d.). *Realist evaluation of a supportive intervention for pregnant women and new families living with psychosocial vulnerabilities*. Aalborg University's research portal. Retrieved 29 August 2022, from <https://vbn.aau.dk/da/projects/realist-evaluation-of-a-supportive-intervention-for-pregnant-wome>.
- Angel, S., Vatne, S., 2017. Vulnerability in patients and nurses and the mutual vulnerability in the patient-nurse relationship. *J. Clin. Nurs.* 26 (9–10), 1428–1437. doi: [10.1111/jocn.13583](https://doi.org/10.1111/jocn.13583).
- Amuli, K., Decabooter, K., Talrich, F., Renders, A., Beeckman, K., 2021. Born in Brussels screening tool: the development of a screening tool measuring antenatal psychosocial vulnerability. *BMC Public Health* 21 (1), 1522. doi: [10.1186/s12889-021-11463-8](https://doi.org/10.1186/s12889-021-11463-8).
- Armstrong, S.J., Small, R.E., 2010. The paradox of screening: rural women's views on screening for postnatal depression. *BMC Public Health* 10 (1), 744. doi: [10.1186/1471-2458-10-744](https://doi.org/10.1186/1471-2458-10-744).
- Austin, M.-P., Colton, J., Priest, S., Reilly, N., Hadzi-Pavlovic, D., 2013. The Antenatal Risk Questionnaire (ANRQ): acceptability and use for psychosocial risk assessment in the maternity setting. *Women Birth* 26 (1), 17–25. doi: [10.1016/j.wombi.2011.06.002](https://doi.org/10.1016/j.wombi.2011.06.002).

- Austin, M.-P., Highet, N., the Expert Working Group, 2017. *Mental Health Care in the Perinatal Period: Australian Clinical Practice Guideline*. Centre of Perinatal Excellence.
- Bernazzani, O., Marks, M.N., Bifulco, A., Siddle, K., Asten, P., Conroy, S., 2005. Assessing psychosocial risk in pregnant/postpartum women using the Contextual Assessment of Maternity Experience (CAME): recent life adversity, social support and maternal feelings. *Soc. Psychiatry Psychiatr. Epidemiol.* 40 (6), 497–508. doi:10.1007/s00127-005-0917-y.
- Biaggi, A., Conroy, S., Pawlby, S., Pariante, C.M., 2016. Identifying the women at risk of antenatal anxiety and depression: a systematic review. *J. Affect. Disord.* 191, 62–77. doi:10.1016/j.jad.2015.11.014.
- Bilstein, J.F., Andresen, J.B., Mortensen, L.H., Hansen, A.V., Andersen, A.-M.N., 2018. Educational disparities in perinatal health in Denmark in the first decade of the 21st century: a register-based cohort study. *BMJ Open* 8 (11), e023531. doi:10.1136/bmjopen-2018-023531.
- Bonell, C., Jamal, F., Melendez-Torres, G.J., Cummins, S., 2015. 'Dark logic': theorising the harmful consequences of public health interventions. *J. Epidemiol. Community Health* 69 (1), 95–98. doi:10.1136/jech-2014-204671.
- Bradfield, Z., Hauck, Y., Duggan, R., Kelly, M., 2019. Midwives' perceptions of being 'with woman': a phenomenological study. *BMC Pregnancy Childbirth* 19 (1), 363. doi:10.1186/s12884-019-2548-4.
- Braveman, P., Marchi, K., Egarter, S., Kim, S., Metzler, M., Stancil, T., Libet, M., 2010. Poverty, Near-Poverty, and Hardship Around the Time of Pregnancy. *Matern. Child Health J.* 14 (1), 20–35. doi:10.1007/s10995-008-0427-0.
- Brealey, S.D., Hewitt, C., Green, J.M., Morrell, J., & Gilbody, S. (2010). Screening for postnatal depression – is it acceptable to women and healthcare professionals? A systematic review and meta-synthesis.
- Connell, T., Barnett, B., Waters, D., 2018. Barriers to antenatal psychosocial assessment and depression screening in private hospital settings. *Women Birth* 31 (4), 292–298. doi:10.1016/j.wombi.2017.09.021.
- Dalkin, S.M., Greenhalgh, J., Jones, D., Cunningham, B., Lhussier, M., 2015. What's in a mechanism? Development of a key concept in realist evaluation. *Implement. Sci.* 10 (1), 49. doi:10.1186/s13012-015-0237-x.
- Danermark, B., Ekström, M., 2019. *Explaining society: Critical realism in the Social Sciences*, 2nd ed. Routledge, Taylor & Francis Group.
- Danish Health Research Ethics Committee, 2018. *Act On Research Ethics Review of Health Research Projects*.
- de Groot, N., Bonsel, G.J., Birnie, E., Valentine, N.B., 2019. Towards a universal concept of vulnerability: broadening the evidence from the elderly to perinatal health using a Delphi approach. *PLoS One* 14 (2), e0212633. doi:10.1371/journal.pone.0212633.
- de Graaf, J.P., Steegers, E.A.P., Bonsel, G.J., 2013. Inequalities in perinatal and maternal health. *Curr. Opin. Obstet. Gynecol.* 25 (2), 98–108. doi:10.1097/GCO.0b013e32835ec9b0.
- Deery, R., Hunter, B., 2010. Emotion work and relationships in midwifery. In: Kirkham, M. (Ed.), *The Midwife-Mother Relationship*. Palgrave Macmillan, pp. 37–54.
- Dykes, F., 2006. *Breastfeeding in hospital: Mothers, midwives, and the Production Line*. Routledge.
- Fernandez Turienzo, C., Rayment-Jones, H., Roe, Y., Silverio, S.A., Coxon, K., Shennan, A.H., Sandall, J., 2021. A realist review to explore how midwifery continuity of care may influence preterm birth in pregnant women. *Birth* 48 (3), 375–388. doi:10.1111/birt.12547.
- Finlay, S., Sandall, J., 2009. Someone's rooting for you": continuity, advocacy and street-level bureaucracy in UK maternal healthcare. *Soc. Sci. Med.* 69 (8), 1228–1235. doi:10.1016/j.socscimed.2009.07.029.
- Fletcher, A., Murphy, M., Leahy-Warren, P., 2021. Midwives' experiences of caring for women's emotional and mental well-being during pregnancy. *J. Clin. Nurs.* 30 (9–10), 1403–1416. doi:10.1111/jocn.15690.
- Fontein-Kuipers, Y., Boele, A., Stuij, C., 2016. Midwives' perceptions of influences on their behaviour of woman-centered care: a qualitative study. *Front. Women's Health* 1 (2), 20–26. doi:10.15761/FWH.1000107.
- Fontein-Kuipers, Y., de Groot, R., van Staa, A., 2018. Woman-centered care 2.0: bringing the concept into focus. *Eur. J. Midwifery* 2 (May), 5. doi:10.18332/ejm/91492.
- Forder, P.M., Rich, J., Harris, S., Chojenta, C., Reilly, N., Austin, M.-P., Loxton, D., 2020. Honesty and comfort levels in mothers when screened for perinatal depression and anxiety. *Women Birth* 33 (2), e142–e150. doi:10.1016/j.wombi.2019.04.001.
- Frederiksen, M.S., Schmied, V., Overgaard, C., 2021a. Living with fear: experiences of danish parents in vulnerable positions during pregnancy and in the postnatal period. *Qual. Health Res.* 31 (3), 564–577. doi:10.1177/1049732320978206.
- Frederiksen, M.S., Schmied, V., Overgaard, C., 2021b. Supportive encounters during pregnancy and the postnatal period: an ethnographic study of care experiences of parents in a vulnerable position. *J. Clin. Nurs.* 30 (15–16), 2386–2398. doi:10.1111/jocn.15778.
- Gilmore, B., McAuliffe, E., Power, J., Vallières, F., 2019. Data analysis and synthesis within a realist evaluation: toward more transparent methodological approaches. *Int. J. Qual. Methods* 18, 1–11. doi:10.1177/1609406919859754.
- Goldenberg, R.L., Culhane, J.F., Iams, J.D., Romero, R., 2008. Epidemiology and causes of preterm birth. *Lancet North Am. Ed.* 371 (9606), 75–84. doi:10.1016/S0140-6736(08)60074-4.
- Handley, M., Bunn, F., Lynch, J., Goodman, C., 2020. Using non-participant observation to uncover mechanisms: insights from a realist evaluation. *Evaluation* 26 (3), 380–393. doi:10.1177/1356389019869036.
- Higgins, A., Tuohy, T., Murphy, R., Begley, C., 2016. Mothers with mental health problems: contrasting experiences of support within maternity services in the Republic of Ireland. *Midwifery* 36, 28–34. doi:10.1016/j.midw.2016.02.023.
- International Confederation of Midwives, 2014. *Philosophy and Model of Midwifery Care*.
- Jackson, S.F., Kolla, G., 2012. A new realistic evaluation analysis method: linked coding of context, mechanism, and outcome relationships. *Am. J. Eval.* 33 (3), 339–349. doi:10.1177/1098214012440030.
- Jagosh, J., 2020. Retrospective theorizing in Pawson and Tilley's applied scientific realism. *J. Crit. Realism* 19 (2), 121–130. doi:10.1080/14767430.2020.1723301.
- Jakobsen, S.P., Overgaard, C., 2018. 'They'll be judging us' a qualitative study of pregnant women's experience of being offered participation in a supportive intervention. *Midwifery* 61, 81–87. doi:10.1016/j.midw.2018.02.017.
- Johnson, M., Schmeid, V., Lupton, S.J., Austin, M.-P., Matthey, S.M., Kemp, L., Meade, T., Yeo, A.E., 2012. Measuring perinatal mental health risk. *Arch. Women's Mental Health* 15 (5), 375–386. doi:10.1007/s00737-012-0297-8.
- Kim, M.K., Lee, S.M., Bae, S.-H., Kim, H.J., Lim, N.G., Yoon, S.-J., Lee, J.Y., Jo, M.-W., 2018. Socioeconomic status can affect pregnancy outcomes and complications, even with a universal healthcare system. *Int. J. Equity Health* 17 (1), 2. doi:10.1186/s12939-017-0715-7.
- Kirkham, M., 2010a. The maternity services context. In: Kirkham, M. (Ed.), *The Midwife-Mother Relationship*. Palgrave Macmillan, pp. 1–16.
- Kirkham, M., 2010b. We need to relate. In: Kirkham, M. (Ed.), *The Midwife-Mother Relationship*. Palgrave Macmillan, pp. 250–272.
- Kirkham, M., 2015. How environment and context can influence capacity for kindness. In: Byrom, S., Downe, S. (Eds.), *The Roar Behind the Silence: Why Kindness, Compassion and Respect Matter in Maternity Care*. Pinter & Martin, pp. 105–110.
- Kohlhoff, J., Tooke, S., Cibralic, S., Hickinbotham, R., Knox, C., Roach, V., Barnett, B., 2021. Antenatal psychosocial assessment and depression screening in an Australian Private Hospital setting: a qualitative examination of women's perspectives. *Midwifery* 103, 103129. doi:10.1016/j.midw.2021.103129.
- Kramer, M.S., Séguin, L., Lydon, J., Goulet, L., 2000. Socio-economic disparities in pregnancy outcome: why do the poor fare so poorly? *Paediatr. Perinat. Epidemiol.* 14 (3), 194–210. doi:10.1046/j.1365-3016.2000.00266.x.
- Leap, N., 2010. The Less We Do the More We Give. In: Kirkham, M. (Ed.), *The Midwife-Mother Relationship*. Palgrave Macmillan, pp. 17–36.
- Manzano, A., 2016. The craft of interviewing in realist evaluation. *Evaluation* 22 (3), 342–360. doi:10.1177/1356389016638615.
- McCauley, K., Elsom, S., Muir-Cochrane, E., Lyneham, J., 2011. Midwives and assessment of perinatal mental health: midwives and mental health. *J. Psychiatr. Ment. Health Nurs.* 18 (9), 786–795. doi:10.1111/j.1365-2850.2011.01727.x.
- Megnin-Viggars, O., Symington, I., Howard, L.M., Pilling, S., 2015. Experience of care for mental health problems in the antenatal or postnatal period for women in the UK: a systematic review and meta-synthesis of qualitative research. *Arch. Women's Mental Health* 18 (6), 745–759. doi:10.1007/s00737-015-0548-6.
- Ménage, D., Bailey, E., Lees, S., Coad, J., 2017. A concept analysis of compassionate midwifery. *J. Adv. Nurs.* 73 (3), 558–573. doi:10.1111/jan.13214.
- Merriam, S. B., Tisdell, E. J., 2015. *Qualitative research: A guide to design and implementation*, Fourth edition John Wiley & Sons.
- Morrison, J., Pikhart, H., Ruiz, M., Goldblatt, P., 2014. Systematic review of parenting interventions in European countries aiming to reduce social inequalities in children's health and development. *BMC Public Health* 14 (1), 1040. doi:10.1186/1471-2458-14-1040.
- Mule, V., Reilly, N.M., Schmied, V., Kingston, D., Austin, M.-P.V., 2022. Why do some pregnant women not fully disclose at comprehensive psychosocial assessment with their midwife? *Women and Birth* 35 (1), 80–86. doi:10.1016/j.wombi.2021.03.001.
- National Institute for Health and Care Excellence, 2020. *Antenatal and Postnatal Mental Health: Clinical management and Service Guidance*.
- Newnham, E., Kirkham, M., 2019. Beyond autonomy: care ethics for midwifery and the humanization of birth. *Nurs. Ethics* 26 (7–8), 2147–2157. doi:10.1177/0969733018819119.
- Noonan, M., Jomeen, J., Galvin, R., Doody, O., 2018. Survey of midwives' perinatal mental health knowledge, confidence, attitudes and learning needs. *Women Birth* 31 (6), e358–e366. doi:10.1016/j.wombi.2018.02.002.
- Norhayati, M.N., Nik Hazlina, N.H., Asrenee, A.R., Wan Emilin, W.M.A., 2015. Magnitude and risk factors for postpartum symptoms: a literature review. *J. Affect. Disord.* 175, 34–52. doi:10.1016/j.jad.2014.12.041.
- NSW Department of Health, 2009. *NSW Health/Families NSW Supporting Families Early Package – SAFE START Strategic Polic*. NSW Department of Health.
- Pawson, R., Tilley, N., 1997. *Realistic Evaluation*. Sage Publications.
- Quispel, C., Schneider, T.A.J., Bonsel, G.J., Lambregtse-van den Berg, M.P., 2012. An innovative screen-and-advice model for psychopathology and psychosocial problems among urban pregnant women: an exploratory study. *J. Psychosomatic Obstet. Gynecol.* 33 (1), 7–14. doi:10.3109/0167482X.2011.649814.
- Raine, R., Cartwright, M., Richens, Y., Mahamed, Z., Smith, D., 2010. A qualitative study of women's experiences of communication in antenatal care: identifying areas for action. *Matern. Child Health J.* 14 (4), 590–599. doi:10.1007/s10995-009-0489-7.
- Reay, R., Matthey, S., Ellwood, D., Scott, M., 2011. Long-term outcomes of participants in a perinatal depression early detection program. *J. Affect. Disord.* 129 (1–3), 94–103. doi:10.1016/j.jad.2010.07.035.
- Redshaw, M., Henderson, J., 2016. Who is actually asked about their mental health in pregnancy and the postnatal period? Findings from a national survey. *BMC Psychiatry* 16 (1), 322. doi:10.1186/s12888-016-1029-9.
- Reilly, N., Harris, S., Loxton, D., Chojenta, C., Forder, P., Austin, M.-P., 2014. The impact of routine assessment of past or current mental health on help-seeking in

- the perinatal period. *Women Birth* 27 (4), e20–e27. doi:[10.1016/j.wombi.2014.07.003](https://doi.org/10.1016/j.wombi.2014.07.003).
- Reilly, N., Harris, S., Loxton, D., Chojenta, C., Forder, P., Milgrom, J., Austin, M.-P., 2013. Referral for management of emotional health issues during the perinatal period: does mental health assessment make a difference? *Birth* 40 (4), 297–306. doi:[10.1111/birt.12067](https://doi.org/10.1111/birt.12067).
- Rollans, M., Schmied, V., Kemp, L., Meade, T., 2013a. We just ask some questions... the process of antenatal psychosocial assessment by midwives. *Midwifery* 29 (8), 935–942. doi:[10.1016/j.midw.2012.11.013](https://doi.org/10.1016/j.midw.2012.11.013).
- Rollans, M., Schmied, V., Kemp, L., Meade, T., 2013b. Digging over that old ground: an Australian perspective of women's experience of psychosocial assessment and depression screening in pregnancy and following birth. *BMC Women's Health* 13 (1), 18. doi:[10.1186/1472-6874-13-18](https://doi.org/10.1186/1472-6874-13-18).
- Scheele, J., Harmsen van der Vliet-Torij, H.W., Wingelaar-Loomans, E.M., Goumans, M.J.B.M., 2020. Defining vulnerability in European pregnant women, a Delphi study. *Midwifery* 86, 102708. doi:[10.1016/j.midw.2020.102708](https://doi.org/10.1016/j.midw.2020.102708).
- Schmied, V., Langdon, R., Matthey, S., Kemp, L., Austin, M.-P., Johnson, M., 2016. Antenatal psychosocial risk status and Australian women's use of primary care and specialist mental health services in the year after birth: a prospective study. *BMC Women's Health* 16, 69. doi:[10.1186/s12905-016-0344-0](https://doi.org/10.1186/s12905-016-0344-0).
- Schmied, V., Reilly, N., Black, E., Kingston, D., Talcevska, K., Mule, V., Austin, M.-P., 2020. Opening the door: midwives' perceptions of two models of psychosocial assessment in pregnancy- a mixed methods study. *BMC Pregnancy Childbirth* 20 (1), 451. doi:[10.1186/s12884-020-03133-1](https://doi.org/10.1186/s12884-020-03133-1).
- Spiers, J., 2000. New perspectives on vulnerability using emic and etic approaches. *J. Adv. Nurs.* 31 (3), 715–721. doi:[10.1046/j.1365-2648.2000.01328.x](https://doi.org/10.1046/j.1365-2648.2000.01328.x).
- The Danish Ministry of Health [Sundhedsstyrelsen], 2021. *Recommendations For Maternity Care [Anbefalinger For Svangreomsorgen]*. Sundhedsstyrelsen.
- The European Union, 2016. *General Data Protection Regulation (GDPR)*.
- The North Denmark Region [Region Nordjylland]. *Co-operation agreement regarding marginalised pregnant women – The cross-sectoral constitution [Samarbejdsaftale om udsatte gravide—Den Tværsektorielle grundaftale]*.
- The World Medical Association, 2018. *WMA - Declaration of Helsinki—Ethical principles For Medical Research Involving Human Subjects*.
- Viveiros, C.J., Darling, E.K., 2019. Perceptions of barriers to accessing perinatal mental health care in midwifery: a scoping review. *Midwifery* 70, 106–118. doi:[10.1016/j.midw.2018.11.011](https://doi.org/10.1016/j.midw.2018.11.011).
- World Health Organization, 2016. *WHO Recommendations on Antenatal Care for a Positive Pregnancy Experience*. World Health Organization.