

# Risikovurderinger i barnevernet og barnevelferdssystemer: en litteraturstudie

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MASTEROPPGAVE

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# **Forord**

To år på master i barnevern er forbi, og det er flere som har hatt stor betydning for at jeg har kommet meg gjennom denne til tider frustrerende, men interessante og morsomme prosessen.

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# Sammendrag

**Bakgrunn.** Risikovurderinger i barnevernet har som mål å strategisk evaluere og analysere barn og familier som er i høyest risiko. Norge har ikke et nasjonalt rammeverk for hvordan de skal vurdere barn i risiko. Det finnes heller ingen empirisk forskning som beviser at de vurderingene som anvendes i Norge er kvalitetssikre.

**Hensikt.** Hensikten med denne studien var å identifisere forskning som finnes internasjonalt om risikovurderinger i ulike barnevernssystemer og hvilke risikofaktorer som relaterer til barnemishandling og omsorgssvikt.

**Metode.** Studien er et scoping review og 15 empiriske artikler publisert i perioden 2009-2019 ble analysert. Artiklene omfattet kvaliteten på risikovurderinger og faktorer relatert til barnemishandling og omsorgssvikt i barnevernet. Disse faktorene ble analysert på bakgrunn av transaksjonsmodellen og drøftet opp mot den utviklingsøkologiske modellen og tilknytningsteorien.

**Resultat.** Resultatene viste at risikofaktorer kan deles inn i tre kategorier: barns fungering, foreldreomsorg, og familie og miljø. Barnets uttrykk av risiko varierer ut i fra alder, foreldrenes risikofaktorer er dominante og alder på omsorgsgiver kan påvirke. Det var færre familie- og miljøfaktorer, men også disse kan ha både positive og negative innflytelser på graden av risiko. Risikovurderingene som ble analysert varierte både i reliabilitet og validitet.

**Implikasjoner.** Denne studien viser viktigheten av å vurdere alle sider av hver kategori. Dette tillater saksbehandlere å tenke kritisk for kunne oppnå en mer helhetlig forståelse av hva som faktisk er barnets behov. Kvaliteten på risikovurderingene impliserer viktigheten av å teste et slikt instrument til en bestemt populasjon slik at beslutninger som blir tatt kan dokumenteres og begrunnes.

**Nøkkelord.** Barnevern, barnevelferd, risikovurdering, risikofaktorer, barnemishandling, omsorgssvikt.

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VEDLEGG 1: Artikkkel ”Assessing Risk in Child Protection and Child Welfare Services: a scoping review”

VEDLEGG 2: Retningslinjer for publisering i tidsskriftet ”Children and Youth Services Review”



# **1. Innledning**

Barnevernloven (2018, § 1-1) har som formål å sikre at barn og unge som lever under helse- og utviklingstruende forhold får nødvendig hjelp, omsorg og beskyttelse. Det vil si at disse skal møtes med trygghet, kjærlighet og forståelse, slik at alle får en god og trygg oppvekst. Barnevernet har spesielt ansvar for å avdekke omsorgssvikt, adferds-, sosiale og emosjonelle problemer så tidlig at varige problemer skal kunne unngås, og riktige tiltak skal settes inn i forhold til dette. I 2018 mottok det norske barnevernet 57 013 bekymringsmeldinger (SSB, 2019). Ut i fra disse bekymringsmeldingene ble 9691 henlagt uten videre undersøkelse. Dette resulterte i 47 322 barneversundersøkelser i 2018. Hovedfokuset til barnevernet er å ta hensyn til hva som er det beste for barnet. Det må dermed legges stor vekt på å finne tiltak som gir barnet en stabil og god voksenkontakt og kontinuitet i omsorgen (Barnevernloven, 2018, § 4-1).

Helsetilsynet (2012) har blant annet studert hvordan det norske barnevernet utfører sine undersøkelser. Det ble poengert i flere saker at det kommunale barnevernet ikke innhentet nok relevant og nødvendig informasjon om barnet og deres familie. Dette kunne potensielt føre til for lite informasjon i saksrapporter, feil tiltak og tjenester ville bli tilbuddt og satt i gang. Barnet og familien ville dermed ende opp med tjenester og tiltak som jobbet imot sin hensikt. Videre fant Helsetilsynet (2012) utilstrekkelige undersøkelser i flere norske kommuner. Det ble blant annet funnet at alvorlighetsgraden i bekymringsmeldingene ikke samsvarer med de beslutningene som ble tatt. Noen undersøkelser viste også mangel på vurderinger før beslutninger ble tatt (Helsetilsynet, 2012). Dette i seg selv er nok til å sette spørsmålstege ved hvordan barnevernet vurderer og dokumenterer sine saker. Det finnes for tiden ikke et nasjonalt rammeverk for hvordan det norske barnevernet skal utføre risikovurderinger, og det blir dermed uklart hvordan barnevernet løser saker av ulik alvorlighetsgrad og hvordan de begrunner sine beslutninger.

## **1.1 Målsetting og forskningsspørsmål**

Hovedmålet med dette prosjektet er å oppnå mer kunnskap om risikovurderinger som blir gjort i barnevernssaker. På grunn av mangel på norsk forskning på området blir målet dermed å oppsummere funn fra internasjonal forskning, slik at det norske systemet lettere kan dra nytte av det.

Jeg har valgt å gjøre et scoping review, som fokuserer på å oppsummere en rekke bevis fra forskning for å komme både i bredden av forskningsfeltet (Levac, Colquhoun & O'Brien, 2010). Et scoping review stiller brede forskningsspørsmål på en konsis måte slik at en kan dekke omfattende litteratur, verdien av den og eventuelt mangel på forskning. Arksey og O'Malley (2005) beskriver denne metoden som en måte å oppsummere og videreformidle forskningsfunn i detalj. Samtidig dekkes rekkevidden av forskningen innen spesifikke felt slik at beslutningstakere, utøvere og forbrukere kan dra nytte av det.

Denne masteroppgaven stiller tre forskningsspørsmål. 1) Hvor mye forskning finnes det om risikovurderinger i barnevernet? 2) Hvilke risikofaktorer refereres det til? 3) Hva sier forskningen om kvaliteten på disse risikovurderingene?

## 1.2 Oppbygging av oppgaven

Masteroppgaven er skrevet som en vitenskapelig artikkel (vedlegg 1) og følger retningslinjene for artikkelformat. Artikkelen er på ca. 5300 ord og er skrevet med tanke på publisering i tidsskriftet "Children and Youth Services Review", og følger dermed deres retningslinjer knyttet til publisering (vedlegg 2).

Dette leveres sammen med en kappetekst. Kappeteksten består av 7 kapitler og litteraturliste. I neste kapittel vil jeg gjøre rede for begrepene risikovurderinger, barnemishandling og omsorgssvikt. I kapittel 3 går jeg mer i dybden av temaet - risikovurderinger i barnevernet. Videre presenterer jeg det teoretiske rammeverket og begrunner hvorfor dette er relevant for mine forskningsspørsmål. I kapittel 5 drøfter jeg valg av metode. Dette innebærer blant annet vitenskapsteoretisk perspektiv og etikk, og jeg utdypet hvorfor jeg har valgt å gjøre et scoping review. Deretter diskuterer jeg dette prosjektet sin kvalitet i form av troverdighet, pålitelighet, bekreftbarhet og overførbarhet. Kapittel 6 gir en kort oppsummering av mine forskningsfunn, før jeg avslutter med en oppsummering av mitt prosjekt.

## **2. Begrepsavklaring**

### **2.1 Risikovurderinger**

En risikovurdering kan bli definert som en kombinasjon av risikoanalyse og risikoevaluering (Rausand, 2013). En risikoanalyse bruker tilgjengelig informasjon systematisk for å proaktivt kunne identifisere og måle risiko hos individer og deres miljø. En risikoevaluering innebærer å bedømme risikoens toleranse basert på analysene med et sosioøkonomisk perspektiv (Rausand, 2013). Hovedmålet med å utføre en risikovurdering i barnevernet er å strategisk fokusere de begrensede ressursene på barna som er i høyest risiko for mishandling og omsorgssvikt. Videre, å kunne ta en så nøyaktig og lite partisk beslutning som mulig når tiltak skal igangsettes (D'andrade, Austin & Benton, 2008).

Riskovurderinger i barnevernet måles ofte i risiko- og beskyttelsesfaktorer. Risikofaktorer kan karakteriseres som en kombinasjon av livssituasjoner eller omstendigheter som truer eller utfordrer en sunn utvikling hos barnet (Daniel, Wassel & Gilligan, 2010). Beskyttelsesfaktorer er dermed faktorer som virker som buffere, altså positiv påvirkning, på den negative effekten av truende og utfordrende opplevelser (Daniel, Wassel & Gilligan, 2010).

De to mest brukte typene risikovurderinger i barnevernelferdssystemer er såkalte *consensus-based* og *actuarial risk assessments* (Baird, Wagner, Healy & Johnson, 1999). En *consensus-based* risikovurdering er basert på å bruke profesjonelle erfaringer, resonnement og dømmekraft til å forutsi fremtidig mishandling og omsorgssvikt. En *actuarial* risikovurdering avhenger av data fra spesifikke og målbare variabler validert som prediktorer (Baird et al., 1999). Å observere, teste og innhente informasjon uten noen form for empirisk data gjør det vanskeligere å dokumentere og bevise interaksjonen, veiingen og skåringen av diverse faktorer. Standardiserte prosedyrer, på sin side, kan argumenteres å mer nøyaktig estimere sannsynligheten av fremtidig mishandling og omsorgssvikt. Det er derfor denne typen risikovurdering jeg har valgt å fokusere på.

### **2.2 Barnemishandling og omsorgssvikt**

Barnemishandling og omsorgssvikt kan defineres som en måte å behandle et barn på som er skadelig eller moralsk galt (Munro, 2008). The Department of Health and Social

Security (1988) delte barnemishandling og omsorgssvikt inn i fire kategorier: fysisk mishandling, emosjonell mishandling, seksuell mishandling og forsømmelse (Munro, 2008).

Fysisk mishandling beskrives som fysisk harme på barnet, som for eksempel i form av å slå, riste, forgifte, brenne, drukne eller kvele barnet.

Emosjonell mishandling kan defineres som å formidle til barnet at det er verdiløst, uelsket, utilstrekkelig eller kun verdifullt i den grad at det møter behovene til andre personer. Dette er altså vedvarende mishandling som kan påvirke barnets emosjonelle utvikling. Emosjonell mishandling kan skape følelser av frykt og fare hos barnet. Denne typen mishandling er involvert i alle typer barnemishandling, men kan også oppstå alene.

Seksuell mishandling er å tvinge eller friste et barn til å delta i seksuelle aktiviteter, uavhengig om barnet stiller seg forstående til det som skjer. Dette kan involvere fysisk kontakt som både er penetrerende eller ikke-penetrerende. Det kan også skje uten fysisk kontakt, blant annet ved å inkludere barn i å se pornografisk materiale eller andre seksuelle aktiviteter. Samt det å oppmuntre barnet til å opptre på en seksuelt upassende måte er ansett som seksuell mishandling.

Forsømmelse defineres som vedvarende feiling i møte barnets grunnleggende fysiske og psykiske behov, som også kan true barnets helse og utvikling. Dette kan være i form av foreldres eller omsorgsgivers sviktende tilstrekkelighet med å gi barnet nok mat, hus og klær, medisinsk oppfølging, beskyttelse fra harme og fare, og dekke barnets emosjonelle behov.

Barneoppdragelse påvirkes av tro og verdier, noe som kan skape konflikt i den individuelle definisjonen av hva barnemishandling og omsorgssvikt innebærer. Videre, påvirkes også dette av at meningen med en hver atferd avhenger av den overordnede konteksten (Munro, 2008). Konseptet er, med andre ord, komplekst. Dette kan skape dilemmaer for saksbehandlere i form av hvordan bekymringsmeldinger skal kategoriseres. Med mangel på en bred forståelse av konseptet skaper det vanskeligheter med å vite hvordan utøvere og beslutningstakere skal klassifisere handlinger og atferd.

### **3. Risikovurderinger i barnevernet**

Križ og Skivenes (2013) studerte hvordan ulike land med ulike vurderinger og barnevernelferdssystemer måler risiko. Norge er ansett som et familieorientert barnevern med fokus på barnets beste og resultatene viste at Norge målte høyere risiko sammenlignet med både England og USA (California). Begge disse landene anvender bestemte typer risikovurderinger og er ansett som mer barnevernsorienterte systemer (Križ & Skivenes, 2013). Norge brukte ikke en bestemt type risikovurdering, men viste seg å være mest samsvarde og homogene i sine vurderinger. Dette indikerte at faglig skjønn kan spille en viktig rolle i barnevernssaker og at Norge potensielt har et fungerende barnevernssystem.

Med det sagt, blir ikke dette dokumentert godt nok. Den Europeiske Menneskerettighetsdomstolen har siden 2015 tatt inn 35 saker mot det norske barnevernet (Kalajdzic, Gildestad & Roalsø, 2020). I de sakene som er avgjort med en fellende dom mot Norge, har det blant annet blitt begrunnet fra dommerne at Norge sliter med overfladiske begrunnelser for å fjerne barnet fra familien. Dette fører til at det blir ekstremt vanskelig å se tilbake på hvilke profesjonelle vurderinger som er blitt gjort eller potensielt unnlatt (Andersland, 2020). Manglende informasjon om undersøkelser som inkluderer barnemishandling og omsorgssvikt indikerer at disse områdene ikke er godt nok undersøkt eller ikke får nok oppmerksomhet (Christiansen et al., 2019).

Kvellomalen utviklet av Øyvind Kvello (2010) er den modellen det norske barnevernet bruker mest i sine undersøkelser angående barnemishandling og omsorgssvikt (Christiansen et al., 2019). Kvellomalen består av risiko- og beskyttelsesfaktorer som en kan ta hensyn til når en vurderer barn og familier i risiko. Faktorene i malen har som mål å hjelpe saksbehandlere i å vurdere den innhente informasjonen, med fokus på kvalitet, intensitet og lengde av risiko. En evaluering av Kvellomalen ble utført etter forespørrelse fra Barne-, ungdoms- og familielid direktoratet. Det ble funnet at sammenlignet med rammeverkene for risikovurderinger i Danmark og Sverige, er Kvellomalen sine risiko- og beskyttelsesfaktorer skjønnsmessige og kan ikke brukes i nødstilfeller (Lauritzen, Vis, Havnen & Fossum, 2017). Videre indikerte evalueringen at risiko- og beskyttelsesfaktorene i Kvellomalen ikke samsvarer med å innhente nok informasjon og det er ikke tydelig hvordan faktorene direkte relaterer til barns utvikling, foreldreomsorg, og familie og miljø. Disse tre kategoriene er hoveddomenene i det danske og svenske rammeverket (Lauritzen et al., 2017). Kvellomalen er, med andre ord, begrenset til hva Kvello definerer som signifikante risiko- og

beskyttelsesfaktorer. Det finnes ingen empirisk dokumentasjon på at denne malen er optimal eller at faktorene i den er relatert til alvorlighetsgraden i barnevernssaker (Vis, Lauritzen & Fossum, 2019).

Det finnes en god del internasjonal forskning på dette feltet, da flere barneverdssystemer har utarbeidet rammeverk for hvordan de skal håndtere sine barnevernssaker og vurdere barn i risiko. England har på sin side utviklet *The British Assessment Framework* for å systematisk kunne analysere, forstå og måle barn i risiko sine livssituasjoner (The United Kingdom Department of Health, 2000). Hovedmålet med dette rammeverket er å samle og analysere nok informasjon om barn og deres familier, samt å effektivt kunne differensiere mellom typer og nivåer av behov. Rammeverket bygger på relevante forskningsfunn og tar utgangspunkt i den utviklingsøkologiske modellen og tilknytningsteori. Dette rammeverket har blitt evaluert og tilpasset til både det danske barnevernet som *Integrated Children's System – ICS* i 2007 (VIA University College et al., 2014) og det svenske barevernet som *Barns Behov i Centrum - BBIC* i 2006 (Socialstyrelsen, 2006). Forhåpentligvis kan dette og annen relevant forskning på feltet være med på å inspirere utviklingen av et rammeverk for risikovurderinger i det norske barnevernet.

## 4. Teoretisk rammeverk

På forskningsspørsmål 2 (Hvilke risikofaktorer relateres det til?) vil transaksjonsmodellen være hovedteorien til analysen. Teorien drøftes opp mot den utviklingsøkologiske modellen og tilknytningsteori. Den utviklingsøkologiske modellen og tilknytningsteori anses som det teoretiske rammeverket for flere risikovurderinger. Disse rammeverkene er blant annet bygd opp som en trekantmodell som representerer barnets behov (Socialstyrelsen, 2018). Trekantmodellen består av faktorer som relaterer til barnets utvikling (helse, skole og utdanning, følelser og atferd, og sosiale relasjoner), foreldrekapasitet (grunnleggende omsorg, stimulering og veiledning, følelsesmessig tilgjengelighet og sikkerhet), og familie og miljø (nåværende familiesituasjon, familiebakgrunn, boforhold, arbeid og økonomi, sosialt nettverk og integrering) (Helsedirektoratet, 2018). For å kunne oppnå et helhetlig perspektiv av hva barnets behov er, må alle sider av trekanten vurderes ettersom de ulike sidene henger sammen (Socialstyrelsen, 2018). Egenskapene ved den ene siden av trekanten representerer risiko og beskyttelse på en annen side av trekanten. Den

danske trekantmodellen legger vekt på hvordan barn utvikler seg og hvilke behov de har i denne prosessen. Den svenske modellen tillegger også vekt på hvordan de ulike faktorene hemmer eller fremmer at behovene dekkes (Helsedirektoratet, 2018). Figur 1 viser trekantmodellens tre domener.



**Figur 1.** *Trekantmodellen sin representasjon av barnets behov (Helsedirektoratet, 2018)*

Den utviklingsøkologiske modellen har som basis å se på hvordan ulike miljøer påvirker barnet og tilknytningsteori hvordan omsorgsgiver stimulerer barnet. Transaksjonsmodellen, derimot, fokuserer på at barnet etter hvert som det blir eldre og med sin biologiske disposisjon har en gjensidig påvirkningskraft på sine omgivelser. Transaksjonsmodellen kan dermed bidra til å få et mer individuelt og helhetlig perspektiv av hva som faktisk er barnets behov. Det blir derfor naturlig å ta utgangspunkt i hvordan transaksjonsmodellen som tilnærming muligens kan være en bedre innflytelse på risikovurderinger i barnevernet.

#### 4.1 Transaksjonsmodellen

Transaksjonsmodellen ble først presentert i 1975 av Sameroff og Chandler. Denne modellen tar utgangspunkt i hvordan barn ikke bare påvirkes av sine omsorgsgivere og miljø,

men også hvordan barn er påvirkere. Modellen skiller seg ut i den grad at barnet og det omsorgsgivende miljøet har en gjensidig utvekslingsprosess. Barnets tidligere atferd kan ha signifikant påvirkning på nåværende situasjoner, og de er ikke passive mottakere av foreldrenes atferd og verdier. Det er dette gjensidige påvirkningsforholdet som skaper utvikling over tid (Sameroff, 2004). Transaksjonsmodellen beskriver videre at den biologiske utrustningen bidrar til hvordan barnet formes av, samt former, sine omgivelser i en kontinuerlig transaksjonsprosess (Tronick, 2007). Det genetiske grunnlaget kan dermed ha en effekt på hvordan barn påvirkes av og påvirker sine omgivelser, som betyr at det samme omsorgsmiljøet ikke nødvendigvis oppfattes likt for hvert barn ettersom utgangspunktet er individuelt (Sameroff & MacKenzie, 2003). Det er altså en kompleks interaksjon mellom barnet og deres naturlige personlighetstrekk, opplevelser innad i familien, samt mellom økonomiske, sosiale og samfunnsmessige faktorer. Denne kompleksiteten av utvikling kan dermed være et godt utgangspunkt for forståelsen av risiko- og beskyttelsesfaktorer (Sameroff, Seifer & McDonough, 2004).

Som nevnt tidligere, tar flere internasjonale rammeverk utgangspunkt i det utviklingsøkologiske perspektivet for å evaluere og analysere barn i risiko. For å forklare hvordan bestemte rammeverk for risikovurderinger ser på interaksjonen mellom barnet og de ulike systemene vil jeg beskrive den utviklingsøkologiske modellen (Bronfenbrenner, 1979) og tilknytningsteori (Bowlby, 1969). Figur 2 viser den gjensidige transaksjonsprosessen mellom barnet og de ulike systemene.

## 4.2 Den utviklingsøkologiske modellen

Bronfenbrenners utviklingsøkologiske modell (1979) beskriver interaksjonen mellom barnet og deres mikro-, meso-, ekso-, makro- og kronosystem.

Mikrosystemet er barnets nærmeste system. Det er definert som barnets relasjon og interaksjon med foreldre eller omsorgspersoner, nærmeste familie og venner. Hvert mikrosystem har en spesifikk aktivitet ettersom barnet direkte samhandler med sine mikrosystemer.

Mesosystemet er interaksjonen mellom barnets mikrosystemer, som for eksempel forholdet mellom barnets skole og hjem. Barnet behøver ikke å være i direkte kontakt med disse systemene, men det kan likevel ha en påvirkningskraft på barnet.

Eksosystemet innebærer forbindelsene og prosessene mellom to eller flere miljøer som indirekte påvirker prosessene i barnets miljø. Barnet er ikke nødvendigvis fysisk tilstede i systemet, men kan forklares med eksempler som foreldrenes arbeidsplass og miljø, som igjen kan påvirke barnet. Ved å koble hendelser i eksosystemet til prosessene i mikrosystemet, vil det påvirke og forandre prosessene i barnets utvikling.

Makrosystemet er det overordnede systemet, som barnet både er en del av og kan bli påvirket av. Det er ikke et system i seg selv, men det representerer forholdene i samfunnet i form av blant annet politiske og kulturelle normer og verdier.

Kronosystemet referer til forandringer over tid som uttrykkes gjennom ulike tidslinjer. Den personlige tidslinjen er beskrevet som utviklingen i en persons liv fra fødsel til død. Videre finnes generasjonstidslinjen som er definert som en persons plass innen en generasjon. Tilslutt, er det den historiske tidslinjen som er personens livssyklus satt inn i et historisk perspektiv.

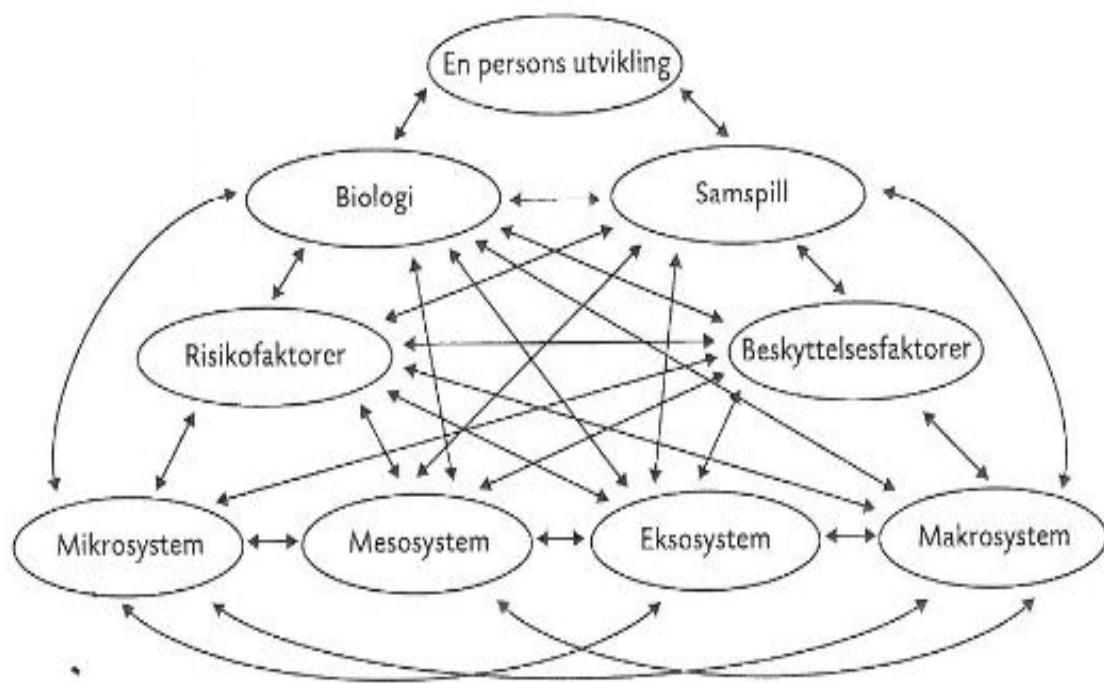
De fem systemene uttrykker et rammeverk som skal beskrive og analysere barnets oppvekst i et forandrende miljø, samtidig som det uttrykker konteksten av utvikling (Bronfenbrenner, 1979).

### 4.3 Tilknytningsteori

Videre er tilknytningsteori inkludert for å få en dypere forståelse av det utviklende forholdet mellom barnet og omsorgspersoner. Tilknytningsteori representerer prosessen av det psykologiske båndet mellom barnet og deres omsorgsperson ved å fokusere på utvikling i en relasjonell kontekst, samt å forstå barnet som et sosialt vesen (Bowlby, 1969). Personlighetsmønstre er relatert til medfødte antagelser og utvikles videre gjennom interaksjonen mellom den biologiske disposisjonen og nære relasjonelle opplevelser. De medfødte antagelsene kan defineres som barnets biologiske behov for omsorg fra foreldre, beskyttelse og utvikling av en personlig autonomi. Bowlby (1969) indikerte at for å møte disse behovene må foreldre eller omsorgsgivere uttrykke emosjonell varme og støtte på en ikke-invaderende, men utfordrende måte. Gjennom universell gjenkjennelig tilknytningsatferd vil barnet kunne speile disse utrykkene (Crittenden & Ainsworth, 1989).

Utrygg tilknytning er kritisk for omsorgssvikt. Når barnet viser et angstfylt eller unnvikende atferdsmønster til tilknytning kan de ha opplevd interaksjonen med omsorgsgiver som utilgjengelig, unnvikende eller upassende til deres atferdssignaler (Crittenden & Ainsworth, 1989). Den spesifikke naturen av tilknytning forandrer seg gjennom utvikling, men er viktig for individuell fungering i alle aldre. Tidligere erfaringer er internt og emosjonelt kodet til en selv og andre. Tidligere erfaringer og miljøfaktorer kan derfor avgjøre den faktiske atferden i spesifikke situasjoner. Tilknytningsproblemer er definert som hvor mye suksess et forhold har i å gi tilstrekkelig sikkerhet og samtidig gi individuell frihet til å utforske andre aspekter i livet (Crittenden & Ainsworth, 1989).

Tilknytingsteori knyttes derfor til systemet som representerer forholdet mellom barnet og foreldre, representert i Bronfenbrenner (1979) sitt mikrosystem. Samtidig knyttes også tilknytingsteori til medfødte biologiske antagelser og utvikling over tid som antyder en transaksjonsprosess mellom barnet, omsorgsgiver og omgivelser. (Sameroff & Chandler, 1975).



**Figur 2.** En illustrasjon av transaksjonsprosessen mellom barnet og systemene (hentet fra [forebygging.no](http://forebygging.no)).

## **5. Metode**

### **5.1 Vitenskapsteoretisk perspektiv**

Et vitenskapsteoretisk perspektiv er en generell filosofisk orientering av verden og det påvirker hvordan vi tolker og forstår situasjoner. Det er et grunnleggende sett av tro som styrer våre handlinger (Creswell & Creswell, 2018). Det er derfor viktig å reflektere over hvilke filosofiske vitenskapsteoretiske perspektiver en vil anvende i sine praktiske metodevalg ettersom dette påvirker hva en som forsker mener det er verdt å søke viden om, samt hva vitenskap bør være (Thomassen, 2006).

Jeg har valgt å plassere mitt masterprosjekt innenfor et postpositivistisk perspektiv. Postpositivismen bygger på positivismen, som har en teori om at verden er objektiv kjennbar. Konsepter defineres av empiriske kategorier og et stort utvalg kan avsløre generelle årsaker (Ponterotto, 2005). Dette anvendes ofte i kvantitativ metode, ved at det gir en numerisk beskrivelse av fenomener fra et større, gjerne tilfeldig, utvalg av en populasjon. Målet blir dermed å kunne generalisere funnene (Creswell & Creswell, 2018).

Postpositivismen bygger også på å studere, identifisere og generalisere. Uten å kunne finne den fullstendige sannhet har det som et mål å kunne forklare fenomener ut i fra prediksjon og kontroll, altså med en årsak-virkning effekt (Ponterotto, 2005). Det er et vitenskapsteoretisk perspektiv som også representerer en form for tradisjonell forskning, hvor empirisk vitenskap står sentralt (Creswell & Creswell, 2018) og jeg har derfor valgt å kun analysere kvantitative studier. Dette er en motsetning til sosialkonstruktivismen hvor en søker og utvikler et mangfold av subjektive meninger og erfaringer, med et mål om å kunne skape en tolkning av andres meninger (Creswell & Creswell, 2018).

Postpositivismen har som mål å utfordre den absolutte sannhet om kunnskap og antyder at vi ikke kan være absolutt positiv i våre anklagelser om kunnskap når vi studerer menneskelige handlinger og atferd. Istedent bygger denne filosofien på at årsak skaper en effekt på utfallet og disse årsakene må derfor identifiseres (Creswell & Creswell, 2018).

### **5.2 Etiske refleksjoner**

Det var ingen krav for etisk godkjennelse for å gjennomføre dette prosjektet, men det skal likevel vise til høy grad av forskningsetikk og faglig kvalitet. En etisk utfordring kan

være egne verdier, erfaringer og teoretiske ståsteder i og med at dette kan påvirke hvordan man tolker datamaterialet. Jeg har derfor valgt å forholde meg så refleksiv som mulig til min egen subjektivitet gjennom hele prosessen.

Med det sagt, så har jeg valgt å drøfte transaksjonsmodellen opp mot den utviklingsøkologiske modellen og tilknytningsteori. Dette er utgangspunktet for hvordan jeg skal analysere dataen og konstruere en diskusjon i henhold til forskningsspørsmål 2. Jeg er likevel klar over mine egne predisposisjoner og forstår viktigheten av å redusere min egen partiskhet så mye som mulig. Dette drøfter jeg nærmere i forhold til oppgavens bekreftbarhet (5.4).

Videre har The Evidence-Based Research Network uttrykt at det er uetisk å sette i gang med egen forskning uten at det er blitt gjort en systematisk gjennomgang av det som er allerede finnes av forskning innenfor et felt (Jære, 2018). The Evidence-Based Research Network ble grunnlagt i Bergen i 2014, men har nå blitt et internasjonalt nettverk av forskere. Dette nettverket har som mål å redusere bortkastet forskning ved å promotere effektiv produksjon, oppdatering og formidling av systematiske studier (EBRNetwork, 2020). Det skal dermed unngås utvikling av nye studier uten at det har blitt gjennomført en systematisk gjennomgang av tidligere forskning.

Jeg har derfor valgt å gjøre en type litteraturstudie som tar for seg å analysere forskning som allerede eksisterer. Forhåpentligvis kan dette bidra med å gi en kunnskapsoppsummering for videre forskning av risikovurderinger i det norske barnevernet.

### 5.3 Scoping review som metode

Forskningsmetode klargjør hvordan man velger å samle, analysere og tolke data (Creswell & Creswell, 2018). Metodevalg avhenger av problemstilling og hva det ønskes å få mer kunnskap om. Mitt mål med dette prosjektet var som nevnt tidligere å få mer kunnskap om risikovurderinger i barnevernet, hvilke faktorer som relaterer til barnemishandling og omsorgssvikt og kvalitetssikringen av disse risikovurderingene. Det er lite forskning på dette området i det norske barnevernet, men en del forskning internasjonalt. Jeg vil derfor bruke den allerede eksisterende forskningen som er gjort, slik at det kan bidra med å legge til rette for eventuell videre forskning i Norge der det mangler kunnskap. En metode med bred

tilnærming er dermed ansett som det beste valget for å få en god oversikt over temaet. Jeg har derfor valgt å gjennomføre et såkalt scoping review, som er en variant av en litteraturstudie.

En litteraturstudie oppsummerer forskning innen et fagfelt som støtter identifiseringen av spesifikke forskningsspørsmål (Rowley & Slack, 2004). Det er, med andre ord, en måte å demonstrere sin kunnskap innenfor et spesifikt forskningsfelt, samt avdekke hull i forskningen (Randolph, 2009). Dette kan utføres i form av blant annet narrativ analyse, meta-analyse, systematic review og scoping review. Systematic review er en definert og metodisk måte å identifisere, vurdere og analysere publisert forskning (Staples & Niazi, 2007). Det som skiller en systematisk studie fra en scoping studie, er at i en systematisk studie vurderes også kvaliteten av de inkluderte studiene i større grad og gjennomføres gjerne av et team av forskere (Uman, 2011). Jeg anser det derfor som et godt valg å gjennomføre et scoping review. Det kan til tross for å ha en mindre omfattende tilnærming være av høy faglig kvalitet.

Et scoping review har som mål å kartlegge hovedkonseptene innen et forskningsfelt (Arksey & O’Malley, 2005) og er antydet som nyttig å gjennomføre dersom en del av forskningslitteraturen ikke har blitt grundig gjennomgått (Peters et al., 2015). I følge Arksey og O’Malley (2005) følger et scoping review fem steg: (1) identifisere forskningsspørsmål; (2) identifisere relevant forskning; (3) ”screene” identifiserte artikler ved å bruke inklusjons- og eksklusjonskriterier; (4) kartlegge data; og (5) sortere, oppsummere og rapportere funn fra de valgte forskningsartiklene.

### 5.3.1 Utvalg og innhenting av data

Studien består av vitenskapelige artikler hentet fra tidsskrift. Disse er hentet gjennom en søkestrategi utarbeidet i to faser. Den første fasen bestod av å utarbeide et sett av inklusjon- og eksklusjonskriterier, samt planlegge nøkkelord og begreper som ville dekke de utarbeidete forskningsspørsmålene. Jeg begrenset dette til tre nøkkelbegreper, for å være sikker på at all den relevante forskningen ville komme frem i søkerne (Arksey & O’Malley, 2005). Disse tre nøkkelbegrepene var *Risk Assessment*, *Child Maltreatment* og *Child Welfare*, og ble utgangspunktet for søkerestrategien videre. Flere test-søk ble gjennomført for å vurdere endringer og opparbeide konkrete søkeord. Nøkkelbegrepene og de endelige søkerordene vises i tabell 1. Søk som ble ansett for å gi unødvendig, feil eller for bred informasjon ble fjernet.

Neste fase ble da å implementere søkeordene for å avdekke relevant forskning i databasene Web of Science, PsycINFO og MEDLINE.

For å få et bredere søk ble kommandoen ”OR” brukt mellom hvert søkeord i samme søkefilter. Deretter ble kommandoen ”AND” brukt mellom alle søkefilter, slik at artikler som inneholdt søkeord fra alle mine søkefilter ble inkludert. Søket ble avgrenset til å inkludere engelske studier fra 2009-2019.

Totalt fikk jeg 936 treff fordelt på de tre databasene. 324 treff på Web of Science, 363 på PsycINFO og 250 på MEDLINE. Etter søkerne ble 838 studier eliminert. Disse var blant annet duplikater, reviews, kvalitative eller ansett som irrelevante til mitt prosjekt. Jeg gikk deretter i gang med en utvelgelsesprosess av dataen som det vises til i et flow chart diagram i artikkelen (vedlegg 1). Denne utvelgelsesprosessen bestod av screening, utvalg og inklusjon på bakgrunn av inklusjons- og eksklusjonskriteriene (tabell 2) som var valgt (Arksey & O’Malley, 2005). Dette resulterte i et empirisk materiale på 15 inkluderte artikler.

Tabell 1. Nøkkelbegreper og inkluderte søkeord.

Risk assessment	Child maltreatment	Child welfare
Risk factor	Child neglect	Social worker
Risk assessment	Neglect	Child welfare worker
Assessment framework	Child abuse	Social work
Risk analysis	Child-abuse	Child welfare system
Risk-assessment	Child abuse and neglect	Child protective services
Decision-making	Child maltreatment	Caseworkers
Predictive risk modeling	Maltreatment	Child welfare
Actuarial models	Child-maltreatment	Child welfare services
Structured decision making	Domestic violence	Child protection
Child well-being scale	Physical discipline	CPS
Decision-making process	Physical abuse	Protective services
Actuarial assessment	Sexual abuse	Social-workers
Consensus-based assessment	Sexual-abuse	Child welfare workers
	Child sexual abuse	Child-welfare workers
	Corporal punishment	Child protection workers
	Assault	
	Adverse childhood experiences	
	Recurrent maltreatment	

Tabell 2. Inklusjons- og eksklusjonskriterier.

	Inklusjonskriterier	Eksklusjonskriterier
<b>Databaser</b>	Web Of Science, PsycINFO og MEDLINE	Alle andre databaser
<b>Tidsramme</b>	2009-2019	Artikler publisert før 2009
<b>Publikasjonstype</b>	Fagfellevurderte originale artikler tilgjengelig på nettet i fulltekst	Andre typer publikasjoner
<b>Type studier</b>	Kun kvantitativ metode	Andre forskningsmetoder
<b>Fokus</b>	Studier som fokuserte på å vurdere risiko i barnevernssystemer i Europa, Australia og Nord-Amerika.	Studier om risikovurderinger i andre systemer og land utenfor Europa, Australia og Nord-Amerika.
<b>Språk</b>	Engelsk	Alle andre språk

### 5.3.2 Tematisk analyse

En tematisk analyse er en metode for å identifisere, analysere og rapportere temaer funnet i datamaterialet på detaljert måte (Braun & Clarke, 2006). En slik analyse ble brukt som sorteringsmetode og utført spesielt i henhold til forskningsspørsmål 2; Hvilke risikofaktorer refereres det til? Dette forskningsspørsmålet har en deduktiv tilnærming, som vil si at jeg har aktivt tatt utgangspunkt i eksisterende teorier før selve undersøkelsen ble gjennomført (Thomassen, 2006). Transaksjonsmodellen drøftet opp mot den utviklingsøkologiske modellen og tilknytningsteori ble brukt som sorteringsmetode av datamaterialet, og sikret at prosessen ble utført på en systematisk måte (Arksey & O’Malley, 2005).

Stegene for å utføre en tematisk analyse foreslått av Braun og Clarke (2006) ble fulgt. Alle artikler ble grundig lest, slik at jeg ble godt kjent med all den potensielle dataen til mitt prosjekt. Jeg noterte metode og design, deltakerinformasjon, variabler, resultater, og styrker og svakheter fra hvert enkelt studie. Disse ble etter hvert kodet ut ifra hovedinformasjon og funn, og fordelt inn i ulike temaer. Disse temaene relaterte til det teoretiske rammeverket, og en del av det endelige datamaterialet ble utgangspunktet for temaene (1) barns fungering, (2) foreldreomsorg og (3) familie og miljø.

Jeg valgte denne analysemetoden slik at jeg kunne gi en mest mulig oversiktlig presentasjon av funnene i de kvantitative forskningsartiklene som ble brukt i studien.

## 5.4 Troverdighet og pålitelighet, bekreftbarhet og overførbarhet

Troverdighet oppnås når man måler det man faktisk prøver å måle og viser validitet. Pålitelighet defineres som at resultatene er de samme hver gang de testes, altså at de er reliable (Field, 2013). Validitet og reliabilitet er uttrykk som oftest brukes i kvantitativ forskning, da dette kan støttes av statistiske prosedyrer og adresseres på en annen måte enn i kvalitativ forskning. Jeg har valgt postpositivismen som mitt vitenskapsteoretiske ståsted, men vil bruke begrepene troverdighet og pålitelighet til å forklare hvordan kvaliteten på mitt prosjekt kan vurderes. Gjennom presentasjonen av søkerestrategi, inklusjons- og eksklusjonskriterier vises det til hvordan jeg kom fram til artiklene jeg har valgt å bruke. Metoden er, med andre ord, utført på en streng og transparent måte (Arksey & O’Malley, 2005). Fremgangsmåten er dokumentert på detaljnivå slik at det er mulig for andre å replisere. Dette styrker både påliteligheten og troverdigheten av studien. Videre har jeg forsøkt å gjøre det tydelig hva som er mine tolkninger, samt vise til hvordan flere av mine tolkninger støttes av annen litteratur. Dette bidrar igjen til større troverdighet og pålitelighet, samt bekreftbarhet.

Bekreftbarhet kan defineres som å være så objektiv som mulig og redusere forskerens partiskhet (Shenton, 2004). Miles og Huberman (1994) indikerte viktigheten av triangulering for å oppnå større bekreftbarhet. Dette vil si at forskeren anerkjenner sine predisposisjoner. Ettersom jeg har valgt et postpositivistisk vitenskapsteoretisk ståsted og fokuserer kun på kvantitative studier, vil jeg påstå at funnene er påvirket av subjektive meninger i svært liten grad. Jeg er likevel klar over at en del av resultatene er analysert på bakgrunn av

forhåndsbestemte teorier, noe som påvirker hvordan de tolkes. Dette kommer tydelig fram i forskningsrapporten.

Overførbarhet i postpositivistisk sammenheng kan beskrives som hvordan resultatene kan demonstreres hos en større populasjon og er generaliserbare (Shenton, 2004). Dette er dessverre ikke mulig i et scoping review. Med det sagt, er dette en kunnskapsoppsummering av kun kvantitativ forskning. En styrke med dette er at resultatene bygger på statistiske prosedyrer av flere større utvalg fra ulike land. I tillegg til at disse studiene gjenspeiler mange lignende funn. Med tanke på vurderingen av å utvikle et bedre system for å måle og dokumentere risiko i det norske barnevernet kan denne forskningsgjennomgangen ha en overførbarhetsverdi for politikere, forskere og barnevernstjenesten i Norge.

## 6. Forskningsfunn kort oppsummert

Det finnes en god del forskning på risikovurderinger i ulike barnevernssystemer, men kun 15 artikler møtte inklusjonskriteriene. I analysen av de inkluderte artiklene kommer det frem hvilke risikofaktorer som relaterer til barnemishandling og omsorgssvikt. Disse kunne fordeles inn i kategoriene (1) barnets fungering, (2) foreldreomsorg og (3) familie og miljø. Dette ble hovedsakelig drøftet opp mot transaksjonsmodellen som indikerer at det finnes en kontinuerlig transaksjonsprosess mellom disse kategoriene, og det innebærer både risiko og beskyttelse. Alle kan håndtere en lik situasjon ulikt på bakgrunn av sine forutsetninger og genetiske disposisjoner. En hver sak må derfor kritisk vurderes fra alle vinkler for å kunne oppnå et helhetlig bilde av hva som er utfordringene og behovene innen en familie. Videre ble det funnet at kvaliteten på bestemte risikovurderinger som anvendes i ulike barneverferdssystemer varierer. Mine tolkninger av dette er at risikofaktorene som er funnet i analysen ikke samstemmer i stor nok grad med kvaliteten på risikovurderingene. Resultatene viste i tillegg hvor viktig det er at disse risikovurderingene testes og tilpasses en bestemt populasjon.

### 6.1 Risikofaktorer for barnemishandling og omsorgssvikt

Analysen viser at alder må tas til vurdering når en mäter barnets risikofaktorer. Spedbarn har oftest færre synlige risikofaktorer (Filippelli, Fallon, Fuller-Thompson &

Trocmé, 2017). Barn under fem år viser oftere emosjonelle- og læringsproblemer (Palusci, 2011) og eldre barn assosieres til mer fysiske skader (Ruiz-Casares, Trocmé & Fallon, 2012). Det er dermed viktig å vurdere forskjeller i å uttrykke risiko fra et barns perspektiv.

Videre ble det funnet at omsorgsgivers risikofaktorer er dominerende i å motta tiltak fra barnevernet (Filippelli et al., 2017; Rijbreok, Strating, Konjin & Huijsman, 2019). Funnene indikerte også her at alder bør tas til vurdering. Det var mer sannsynlig at unge omsorgsgivere i alderen 21 år og yngre demonstrerte risikofaktorer (Hovedstad, Shields, Williams & Tonmyr, 2015).

Med det sagt, lever ofte barn som er i risiko for mishandling eller omsorgssvikt under forhold med flere risikofaktorer. Dette vil si at faktorer fra miljøer utenfor kjernefamilien som for eksempel mangel på inntekt, stressende arbeidsforhold og mangel på sosiale nettverk kan påvirke risikoen til barnet. I tillegg finnes det beskyttende faktorer i alle kategorier som kan påvirke graden av risiko (Rijbroek et al., 2019). Det viser dermed at det er en pågående transaksjonsprosess mellom barnets mikro-, meso- og eksosystem (Sameroff & Chandler, 1975; Bronfenbrenner, 1979). Flere risikovurderinger bygger på den utviklingsøkologiske modellen og tilknytningsteori, noe som muligens ikke er tilstrekkelig for å innhente nok informasjon. Med en tilnærming bygget på transaksjonsmodellen kan saksbehandlere muligens innhente mer informasjon fra alle tre kategorier slik at de gjennom kritisk tenkning kan oppnå et mer helhetlig perspektiv.

## 6.2 Kvalitetssikring av risikovurderinger

Både reliabiliteten og validiteten varierte i forskningen av risikovurderinger. Flere risikofaktorer som ble funnet relatert til barnemishandling og omsorgssvikt ble verken funnet reliable eller valide. Kun halvparten av de målte elementene relaterte til tilbakefall innen to år, og validiteten forbedret seg kun når andre eksperimentelle elementer ble lagt til (van der Put, Hermanns, van Rijn-van Gelderen & Sondeijker, 2016). Med det sagt, validiteten var høyere når den ble målt i sin målrettede populasjon sammenlignet med en annen populasjon (Coohey, Johnson, Renner & Easton, 2012).

Videre viste kun 27 av 108 elementer betydelig til nesten perfekt interrater reliabilitet (Orsi, Drury & Macker, 2014). De mest reliable elementene var relatert til objektiv fakta og

ikke nødvendigvis relatert til barnets risiko for mishandling eller omsorgssvikt. De subjektive elementene relatert til omsorgsgivers karakteristikker viste lavest reliabilitet (Orsi et al., 2014; Vial, Assink, Stams & van der Put, 2019).

Disse funnene fra analysen indikerer viktigheten av å utvikle et risikovurderingsinstrument som er testet og tilpasset en bestemt populasjon. Tidligere forskning viser at det norske barnevernet sammenlignet med andre land, til tross for å ikke bruke en bestemt type risikovurdering, å være mer homogene og enige i sine vurderinger av risiko (Kriz & Skivenes, 2013). Dette indikerer at faglig skjønn kan spille en viktig rolle når en vurderer barn i risiko, men at et godt utviklet risikovurderingsinstrument kan være med på å styrke det norske barnevernet slik at beslutninger som tas kan dokumenteres, begrunnes og støttes.

## 7. Oppsummering

Denne kappeteksten har gått i dybden på hvordan jeg har utviklet mitt masterprosjekt. Jeg har forsøkt å argumentere for valg av scoping review som metode, da det finnes en god del forskning på temaet internasjonalt som forhåpentligvis kan bidra til det norske barnevernet. Videre har jeg prøvd å drøfte studiens metode og kvalitet på en så transparent og refleksiv måte som mulig. Gjennom arbeidet med dette prosjektet har det blitt gjennomgått mye relevant forskningslitteratur. Det ble blant annet funnet hvor viktig det er å vurdere alle sider av en hver sak, ettersom hver sak er unik. Flere rammeverk for risikovurderinger bygger på den utviklingsøkologiske modellen og tilknytningsteori, men funnene indikerer at dette dessverre ikke gir nok rom for kritisk tenkning. Med transaksjonsmodellen som en tilnærming til å vurdere risiko- og beskyttelsesfaktorer, kan en muligens oppnå et mer helhetlig bilde av hva som er barnets behov. Videre stilles det spørsmålstegn til kvaliteten på risikovurderingene som er utviklet og anvendes i ulike barnevelferdssystemer. Dette indikerer at for å oppnå et vurderingsinstrument som kan dokumentere, begrunne og støtte beslutninger som blir tatt, må det testes og tilpasses den målrettede populasjonen.

## 8. Kildeliste

- Andersland, G. K. (2020, 28. januar). EMD-fellelsene: Konsekvenser for barnevern og rettslige organer. *Advokatbladet*. Hentet fra  
<https://www.advokatbladet.no/barnevern-emd/emd-fellelsene-konsekvenser-for-barnevern-og-rettslige-organer/147214>
- Arksey, H., & O'Malley, L. (2005). Scoping studies: towards a methodological framework. *International journal of social research methodology*, 8(1), 19-32.  
<https://doi.org/10.1080/1364557032000119616>
- Baird, C., Wagner, D., Healy, T., & Johnson, K. (1999). Risk assessment in child protective services: Consensus and actuarial model reliability. *Child Welfare*, 78(6), 723.
- Bowlby, J. (1969). Attachment and loss v. 3 (Vol. 1). *Random House*. Furman, W., & Buhrmester, D.(2009). Methods and measures: The network of relationships inventory: Behavioral systems version. *International Journal of Behavioral Development*, 33, 470-478.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology*, 3(2), 77-101.
- Bronfenbrenner, U. (1979). Contexts of child rearing: Problems and prospects. *American psychologist*, 34(10), 844.
- Coohey, C., Johnson, K., Renner, L. M., & Easton, S. D. (2013). Actuarial risk assessment in child protective services: Construction methodology and performance criteria. *Children and Youth Services Review*, 35(1), 151-161. <http://dx.doi.org/10.1016/j.chillyouth.2012.09.020>
- Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative & mixed methods approaches* (Fifth ed.). Los Angeles, California
- Christiansen, Ø., Skaale, K. J. H., Iversen, A. C., Fylkesnes, M. K., Lauritzen, C., Nygård, R. H., Jarlby, F. & Vis, S. A. (2019) *Barnevernets undersøkelsesarbeid – fra bekymring til beslutning - delrapport 4*. RKBU Nord.
- Crittenden, P. M., & Ainsworth, M. D. (1989). *14 Child maltreatment and attachment theory* (pp. 432-463). London, England: Cambridge University Press.

D'andrade, A., Austin, M. J., & Benton, A. (2008). Risk and safety assessment in child welfare: Instrument comparisons. *Journal of Evidence-Based Social Work*, 5(1-2), 31-56. [https://doi.org/10.1300/J394v05n01\\_03](https://doi.org/10.1300/J394v05n01_03)

Daniel, B., Wassell, S., Gilligan, R., & Howe, D. (2010). *Child development for child care and protection workers* (2nd ed.). London: Jessica Kingsley.

Department of Health. (2000). *Framework for the Assessment of Children Need and their Families*. Hentet fra

<https://webarchive.nationalarchives.gov.uk/20130404002518/https://www.education.gov.uk/publications/eOrderingDownload/Framework%20for%20the%20assessment%20of%20children%20in%20need%20and%20their%20families.pdf>

Field, A. (2013). *Discovering statistics using IBM SPSS statistics : And sex and drugs and rock 'n' roll*(4th ed.). Los Angeles: SAGE.

Filippelli, J., Fallon, B., Fuller-Thomson, E., & Trocmé, N. (2017). Infants investigated by the child welfare system: Exploring a distinct profile of risks, service needs, and referrals for support in Ontario. *Brain sciences*, 7(8), 101. <https://doi.org/10.3390/brainsci7080101>

Forebygging.no (2015). Bokomtale av Barn i risiko – skadelige omsorgssituasjoner. Hentet fra <http://www.forebygging.no/Litteratur/Bokomtaler/Barn-i-risiko--skadelige-omsorgssituasjoner/>

Helsedirektoratet. (2018). *Kunnskapsgrunnlag – Metoder for tidlig identifisering av risiko hos barn og unge*. Rapport IS-2696.

Helsetilsynet. (2012, 7. mars). *Oppsummering av landsomfattende tilsyn i 2011 med kommunalt barnevern – undersøkelse og evaluering*. (Rapport 2/2012). Hentet fra [https://www.helsetilsynet.no/globalassets/opplastingar/publikasjoner/rapporter2012/helsetilsynetrapport2\\_2012.pdf](https://www.helsetilsynet.no/globalassets/opplastingar/publikasjoner/rapporter2012/helsetilsynetrapport2_2012.pdf)

Hovdestad, W., Shields, M., Williams, G., & Tommyr, L. (2015). Vulnerability within families headed by teen and young adult mothers investigated by child welfare services in Canada. *Health promotion and chronic disease prevention in Canada: research, policy and practice*, 35(8-9), 143.

Jære, L. (2018, 6. mai). Forskere bruker mye tid på det vi allerede vet. *Forskning.no* Hentet fra <https://forskning.no/de-nasjonale-forskningsetiske-komiteene-partner-om-forskning/forskere-bruker-mye-tid-pa-det-vi-allerede-vet/270641>

Kalajdzic, P., Gildestad, B. A. & Roalsø, M. (2020, 4. februar). Nå skal Høyesterett legge klare barnevernføringer. *NRK*. Hentet fra

<https://www.nrk.no/norge/na-skal-hoyesterett-legge-klare-barnevern-foringer-1.14888005>

Križ, K., & Skivenes, M. (2013). Systemic differences in views on risk: A comparative case vignette study of risk assessment in England, Norway and the United States (California). *Children and Youth Services Review*, 35(11), 1862-1870. <https://doi.org/10.1016/j.childyouth.2013.09.001>

Kvello, Ø. (2010). *Barn i risiko : Skadelige omsorgssituasjoner*. Oslo: Gyldendal akademisk.

Lauritzen, C, Vis, S.A, Havnen, K.J.S., Fossum, S. (2017). *Barnevernets undersøkelsesarbeid - Evaluering av Kvellomalen*. (Delrapport 2). Tromsø: RKBU Nord

Levac, D., Colquhoun, H., & O'Brien, K. K. (2010). Scoping studies: advancing the methodology. *Implementation science*, 5(1), 69. <https://doi.org/10.1186/1748-5908-5-69>

Lovdata. (2018). Lov om barneverntjenesten (barnevernloven). Hentet fra [https://lovdata.no/dokument/NL/lov/1992-07-17-100#KAPITTEL\\_1](https://lovdata.no/dokument/NL/lov/1992-07-17-100#KAPITTEL_1)

Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook*. sage.

Munro, E. (2008). *Effective child protection* (Second ed.). Los Angeles, California: Sage Publications.

Orsi, R., Drury, I. J., & Mackert, M. J. (2014). Reliable and valid: A procedure for establishing item-level interrater reliability for child maltreatment risk and safety assessments. *Children and youth services review*, 43, 58-66. <https://doi.org/10.1016/j.childyouth.2014.04.016>

Palusci, V. J. (2011). Risk factors and services for child maltreatment among infants and young children. *Children and Youth Services Review*, 33(8), 1374-1382. <https://doi.org/10.1016/j.childyouth.2011.04.025>

- Peters, M. D., Godfrey, C. M., Khalil, H., McInerney, P., Parker, D., & Soares, C. B. (2015). Guidance for conducting systematic scoping reviews. *International journal of evidence-based healthcare*, 13(3), 141-146. DOI: 10.1097/XEB.0000000000000050
- Ponterotto, J. G. (2005) Qualitative Research in Counseling Psychology: A Primer on Research Paradigms and Philosophy of Science. *Journal of Counseling Psychology*, 52(2), pp.126-136 DOI: 10.1037/0022-0167.52.2.126
- Randolph, J. (2009). A guide to writing the dissertation literature review. *Practical Assessment, Research, and Evaluation*, 14(1), 13. DOI: <https://doi.org/10.7275/b0az-8t74>
- Rausand, M. (2013). *Risk assessment: theory, methods, and applications* (Vol. 115). John Wiley & Sons.
- Rijbroek, B., Strating, M. M., Konijn, H. W., & Huijsman, R. (2019). Child protection cases, one size fits all? Cluster analyses of risk and protective factors. *Child abuse & neglect*, 95, 104068. <https://doi.org/10.1016/j.chab.2019.104068>
- Rowley, J., & Slack, F. (2004). Conducting a literature review. *Management research news*.
- Ruiz-Casares, M., Trocmé, N., & Fallon, B. (2012). Supervisory neglect and risk of harm. Evidence from the Canadian child welfare system. *Child abuse & neglect*, 36(6), 471-480. <https://doi.org/10.1016/j.chab.2012.03.005>
- Sameroff, A. (2004). Ports of entry and the dynamics of mother-infant intervention. In A. J. Sameroff, S. C. McDonough & K. L. Rosenblum (Eds.), *Treating parent-infant relationship problems: strategies for intervention* (pp. 3-28). New York: Guilford Press.
- Sameroff, A. J., & Chandler, M. J. (1975). Reproductive risk and the continuum of caretaking casualty. *Review of child development research*, 4, 187-244.
- Sameroff, A., & MacKenzie, M. J. (2003). Research strategies for capturing transactional models of development: The limits of the possible. *Development and Psychopathology*, 15, 613-640. <https://doi.org/10.1017/S0954579403000312>
- Sameroff, A., Seifer, R., & McDonough, S. C. (2004). Contextual contributors to the assessment of infant mental health. In R. DelCarmen-Wiggins & A. Carter (Eds.), *Handbook of infant*,

*toddler, and preschool mental health assessment* (pp. 61-76). Oxford: Oxford University Press.

Shenton, A. K. (2004). Strategies for ensuring trustworthiness in qualitative research projects. *Education for information*, 22(2), 63-75.

Socialstyrelsen BBIC (2006). *Grundbok – barns behov i centrum, BBIC*. Stockholm: Socialstyrelsen

Socialstyrelsen. (2018). *Grundbok i BBIC - Barns behov i centrum*. Hentet fra <https://www.socialstyrelsen.se/globalassets/sharepoint-dokument/artikelkatalog/ovrigt/2018-10-20.pdf>

Staples, M., & Niazi, M. (2007). Experiences using systematic review guidelines. *Journal of Systems and Software*, 80(9), 1425-1437. <https://doi.org/10.1016/j.jss.2006.09.046>

Statistisk Sentralbyrå. (2019, 3. juli). *Barnevern 2018*. Hentet fra <https://www.ssb.no/sosiale-forhold-og-kriminalitet/statistikker/barnevernng>

The Evidence-Based Research Network. (2020). *About the EBRNetwork*. Hentet fra <http://ebrnetwork.org/about/>

Thomassen, M. (2006). *Vitenskap, kunnskap og praksis : Innføring i vitenskapsfilosofi for helse- og sosialfag*. Oslo: Gyldendal akademisk.

Tronick, E. Z. (2007). *The neurobehavioral and social-emotional development of infants and children*. New York: W. W. Norton & Company, Inc.

Uman, L. S. (2011). Systematic reviews and meta-analyses. *Journal of the Canadian Academy of Child and Adolescent Psychiatry*, 20(1), 57.

van der Put, C. E., Hermanns, J., van Rijn-van Gelderen, L., & Sondeijker, F. (2016). Detection of unsafety in families with parental and/or child developmental problems at the start of family support. *BMC psychiatry*, 16(1), 15. <https://doi.org/10.1186/s12888-016-0715-y>

VIA University College, Professionshøjskolen Metropol, University College Lillebælt & University College Syddanmark. (2012). *Barnets velfærd i centrum - ICS Håndbog*. Odense, Socialstyrelsen.

Vial, A., Assink, M., Stams, G. J. J., & van der Put, C. (2019). Safety and risk assessment in child welfare: A reliability study using multiple measures. *Journal of Child and Family Studies*, 28(12), 3533-3544. <https://doi.org/10.1007/s10826-019-01536-z>

Vis, S. A., Lauritzen, C., & Fossum, S. (2019). Systematic approaches to assessment in child protection investigations: A literature review. *International Social Work*, 0020872819828333. <https://doi.org/10.1177/0020872819828333>



# **VEDLEGG 1**

## **Assessing Risk in Child Protection and Child Welfare Services: a scoping review**

### **Abstract**

*Background and objectives:* Risk assessments in child protection and child welfare services are designed to strategically evaluate and analyze children who are at greatest risk of maltreatment and neglect. Norway does not have a national framework on how to assess children at risk, nor any evidence-based research showing that their assessment tools are effective. The purposes of this review were to (a) identify studies assessing risk of child maltreatment and neglect in this field; (b) describe which and how risk factors should be used; and (c) map the literature to better understand the quality of the risk assessments.

*Method:* For this scoping review, Web of Science, MEDLINE and PsycINFO were the main sources of data. The data were searched for published and peer-reviewed English language quantitative studies from 2009-2019.

*Results:* 15 publications met the inclusion criteria. They showed that risk factors could be divided into three categories: child functioning, parent care and, family and environment. Risk factors related to primary caregiver were dominating. The quality assurance of the risk assessment tools showed to differ in both reliability and validity.

*Implications:* This review identifies the need to consider all aspects of the three categories to provide critical thinking and achieve a holistic perspective of a child's needs. It also questions the quality of the risk assessment tools used today, but implies the importance of testing and adapting the items to a targeted population.

*Key words:* Child protection, child welfare, risk assessment, risk factors, child maltreatment, neglect

## **1 Introduction**

### *1.1 Risk assessments in the Norwegian child protection services*

The purpose of the Norwegian Child Welfare Law (Lovdata, 2018, § 1-1) is to ensure that children and youth living under conditions that are threatening to their health and development receive necessary help, care and protection. The child protection services (CPS) is responsible for monitoring the children's living conditions to uncover possible neglect, and behavioral, social and emotional problems at a sufficiently early stage and create measures to avoid longitudinal problems (Lovdata, 2018, § 3-1).

Križ and Skivenes (2013) studied how countries with different assessments and child welfare systems view risk. Norway, which is considered a family service-oriented system with a main focus on the child's best interest, assessed higher risk compared to England and USA (California). Norway showed, despite not having a specific type of risk assessment, to be most uniform in their opinions and homogeneous in their evaluations. These results indicated that professional discretion might play a big role in the investigations, and that Norway has functioning child protection system (Kriz & Skivenes, 2013).

With that said, the analyzes and evaluations for decision-making in the Norwegian CPS are not documented well enough. The European Court of Human Rights has since 2015 opened 35 cases against the Norwegian CPS (Kalajdzic, Gildestad & Roalsø, 2020). The main reason from the judges in their cases of convicting Norway is that the CPS suffers from superficial justifications when the children are removed from their homes. This makes it extremely difficult to verify which professional assessments have been done or possibly omitted (Andersland, 2020).

Also, the Norwegian Board of Health Supervision (Helsetilsynet, 2012) has claimed that the municipal CPS does not obtain enough relevant and necessary information about the child and family of concern. The Norwegian Board of Health Supervision (2012) further found inadequate investigations in multiple municipalities. Decisions that were made did not conform to the seriousness in the reports of concern, and investigations lacked valuations and assessments before drawing conclusions (Helsetilsynet, 2012). Christiansen et al. (2019) reported a lack of information involving maltreatment in case investigations, which might be an indicator that these areas are not sufficiently investigated or that it lacks attention. This

could lead to ill-informed case reports, wrong services would be provided and would work against its purpose.

The main purpose of conducting a risk assessment in child welfare and child protection services is to strategically focus the limited resources on the children who are at greatest risk of maltreatment. Further, to assist an accurate and non-biased decision-making process when determining potential services (D'andrade, Austin & Benton, 2008). Norway has no national framework that details the contents and processes of CPS assessments (Vis, Lauritzen & Fossum, 2019). There are developed different models, but they are not mandatory to use in the Norwegian CPS. An example is the Kvello model (Kvello, 2010), which is more frequently used in investigations concerning maltreatment (Christiansen et al., 2019). The factors in the Kvello model are discretionary. It is not clear how the factors are directly related to child functioning and development, parent care, and family and environmental influences (Lauritzen, Vis, Havnen & Fossum, 2017). The model has showed that despite being systematic, it is too comprehensive and emphasizes risk factors to a much higher degree than protective factors (Christiansen et al., 2019). Further, there is no empirical evidence implying that the factors presented in the Kvello model are related to the degree of severity in a child protection case.

## *1.2 Theoretical frameworks for risk assessments*

The United Kingdom Department of Health (2000) developed the *British Assessment Framework* to help professionals provide a systematic approach to analyze, understand and record the living situations of children in need according to the Children Act (1989). The main goal of the framework is to gather and analyze information about all children and their families, but also to effectively differentiate between different types and levels of need. The framework relies on evidence-based research and requires a clear understanding of children's developmental needs, parents capacity to respond appropriately and the influence of wider family and environmental factors (The United Kingdom Department of Health, 2000). This framework has been tested, evaluated and adapted into assessment frameworks both in Denmark as the *Integrated Children's System – ICS* in 2007 (VIA University College et al., 2014) and Sweden as *Barns Behov I Centrum (Children's Needs in Focus)* in 2006 (Socialstyrelsen, 2006). These frameworks are represented by the ecological systems theory and attachment theory.

The ecological systems theory (Bronfenbrenner, 1979) explains the importance of understanding the parental and environmental systems affecting the child to be able to understand the child. The attachment between the child and the parent is a process of the psychological bond in Bronfenbrenner's micro system, which describes the relational context and understanding the child as a social being (Bowlby, 1969). The child is born with a set of biological assumptions, which can be defined as the child's innate need for care, protection and development. Insecure attachment can be critical for neglect (Crittenden & Ainsworth, 1989).

However, as the child is born with biological assumptions, this genetic basis can have an effect on how the child is affected by, but also affects, its surroundings (Sameroff & Chandler, 1975). This leads to a continuous transactional process, which might provide a better understanding of risk and protective factors when assessing children for maltreatment and neglect (Sameoff, Seifer & McDonough, 2004).

### *1.3 Research purposes*

There is little evidence-based knowledge on how the Norwegian CPS investigates their cases, but it is claimed that the professionals want more guidance and structure (Christiansen et al., 2019). For the Norwegian CPS to strengthen their case investigations they need a framework that both thematically and methodically allows critical thinking to make conscious decisions. It requires a holistic perspective of what represents the challenges within a family (Christiansen et al., 2019). It is of high relevance for the Norwegian CPS to investigate which factors contributes to child maltreatment and neglect, as well as finding a risk assessment tool that is considered reliable and valid to use. The international research on this topic is well documented and it is of interest to see what has worked to apply best practices to the Norwegian CPS.

This paper presents the results of a scoping review of published, peer-reviewed international studies on assessing risk in child protection and child welfare services. It focuses on three main research questions: (1) How much research is done on risk assessments in child protection services?; (2) Which risk factors do they refer to?; and (3) What does the research say about the quality of these risk assessments?

## **2 Methods**

This scoping review utilized the methodology developed by Arksey and O’Malley (2005). Scoping reviews are designed to map the scope and identify gaps in the literature of a particular field. According to Arksey and O’Malley (2005), a scoping review consists of five steps: (1) identifying the research questions; (2) identifying relevant studies; (3) screening identified articles using inclusion and exclusion criteria; (4) charting data; and (5) collating, summarizing and reporting the results from the selected articles.

Scoping studies differs from systematic reviews, as scoping reviews typically asks broader questions and do not assess the quality of the included studies (Arksey & O’Malley, 2005; Levac, Colquhoun & O’Brien, 2010). Conducting a scoping review is therefore considered more suitable in regards to the objectives of this review.

### *2.1 Search strategy*

For this scoping review, three databases were included: Web of Science, MEDLINE and PsycINFO. A comprehensive search was conducted, searching for peer-reviewed English language studies that reported risk for child maltreatment and neglect in child welfare and child protection services. The publications were limited from 2009-2019.

In order to increase efficiency, the search strategy employed a targeted range of words describing “risk assessments”, “child maltreatment” and “child welfare services”. These words were combined and run across the databases (see table 1 in Appendix). Publications that did not relate to work within child welfare or child protection services, maltreatment and neglect or assessing risk were excluded.

INSERT TABLE 1 HERE

### *2.2 Selection criteria*

Decisions to include or exclude an article were guided by a set of inclusion and exclusion criteria (table 2 in Appendix). The following inclusion criteria were used: (1)

studies that focused on assessing risk in child protection/welfare systems in Europe, Australia and North America (countries that are considered comparable to the Norwegian system), and (2) studies that used quantitative research methods.

A total of 35 articles were included for full-text eligible assessment. Finally, 15 eligible studies were selected according to the eligibility criteria of the articles. A detailed selection process is presented in a flow chart diagram in figure 1 (Appendix).

INSERT TABLE 2 HERE

INSERT FIGURE 1 HERE

### *2.3 Literature screening*

A detailed data analysis was conducted for the full-text articles assessed for eligibility ( $n = 35$ ). The detailed data analysis focused on the concepts included in the research questions. Indicators related to quality assurance of risk assessments were used to organize selected studies. A thematic analysis was conducted to answer research question 2 (Which risk factors do they refer to?). After systematically sourcing and extracting information, the included articles ( $n = 15$ ) were listed in table 3, giving a general summary of the articles (Appendix).

INSERT TABLE 3 HERE

## **3 Results**

### *3.1 An overview of included studies*

15 of the 35 articles met the inclusion criteria. These articles studied risk factors that were found related to child maltreatment and neglect in child protection cases, as well as

quality of risk assessment tools. The articles all used quantitative methodological designs. Among the 15 included articles, seven were studies from the USA, five from Canada and three from the Netherlands. General characteristics of these articles are presented in table 4 (Appendix).

INSERT TABLE 4 HERE

### *3.2 A thematic analysis of the risk factors*

10 of the 15 articles studied which risk factors related to child maltreatment and neglect in child protection and child welfare cases. To cover the child's needs, these factors could be divided into three categories: child functioning, parent care, and family and environment.

#### *3.2.1 Child functioning risk factors*

Compared to older children, infants were significantly less likely to have child functioning risk factors identified (Filippelli, Fallon, Fuller-Thompson & Trocmé, 2017). However, the strongest risk factors for infants related to maltreatment and neglect were failure to meet developmental milestones, physical disability and positive toxicology at birth as many infants were identified with fetal alcohol syndrome or effects during investigations (Fallon et al., 2013; Fillipelli, Fallon, Trocmé, Fuller-Thompson & Black, 2017).

For older children, child functioning and maltreatment was strongly associated with risk factors related to rates of harm. Ruiz-Casares, Trocmé and Fallon (2012) reported that higher rates of physical harm was found among children with mental health issues such as depression, self-harming behavior, substance abuse and aggressive behavior, intellectual or developmental disabilities, academic difficulties and running away. Further, Rijbroek, Strating, Konijn and Huijsman (2019) found that the most mentioned risk factors on child level were externalizing and internalizing characteristics, negative school experience, taking on the parent role at home and loyalty issues. For younger children (less than 5 years), emotional and learning problems were identified as risk factors (Palusci, 2011).

However, positive abilities increase the chance of a better outcome and might reduce the impact of maltreatment or neglect on the child. Thus, positive personality, positive school experience, attractive appearance, social skills and good relations with an important adult could work as protective factors (Rijbroek et al., 2019). These factors could work as important buffers to the risk they are being exposed to.

### *3.2.2 Parenting care risk factors*

Primary caregiver risk factors were found dominating in providing ongoing child welfare services (Filippelli, Fallon, Trocmé, et al., 2017). The most common parenting risk factors related to child maltreatment and neglect for infants were implied to be victims of domestic violence, few social supports and mental health issues (Fallon et al., 2013; Filippelli, Fallon, Fuller-Thompson & Trocmé, 2017; Filippelli, Fallon, Trocmé, et al., 2017; Duffy, Hughes, Asnes & Leventhal, 2014). Infants and children between 8-11 years old were most frequently investigated for exposure to intimate partner violence, and neglect was found to be the most common type of investigated maltreatment (Palusci, 2011; Filippelli, Fallon, Trocmé et al., 2017). Infants were found to have highest incidences of caregivers with at least one risk factor (Filippelli, Fallon, Trocmé et al., 2017).

Young primary caregivers (21 and under) were more likely to demonstrate risk factors (Hovedstad, Shields, Williams & Tonmyr, 2015; Filippelli, Fallon, Trocmé et al., 2017; Filippelli, Fallon, Fuller-Thompson & Trocmé, 2017). Caregiver drug or substance abuse was found as a major risk factor in multiple studies (Palusci, 2011; Hovedstad et al., 2015; Filippelli, Fallon, Trocmé et al., 2017; Filippelli, Fallon, Fuller-Thompson & Trocmé, 2017). Caregiver drug use and living in neighborhoods with a drug environment were considered as risk factors for child maltreatment (Freisthler, Wolf, Wiegmann & Kepple, 2017). Supervisory neglect was found more frequent than other types of neglect. And, compared to physical abuse and other maltreatment cases, supervisory neglect was associated with more risk factors in terms of caregiver substance abuse (Ruiz-Casares et al., 2012).

Having a history of foster care or group home was also identified as a caregiver risk factor in some cases (Fallon et al., 2013; Filippelli, Fallon, Trocmé, et al., 2017), as well as being childhood victims of more than one type of maltreatment (Bartlett & Easterbrooks, 2015). Mothers with a history of childhood maltreatment were 2,5-3 times more likely to

neglect their infants compared to children of non-maltreated mothers. Caregivers being older did not work as a buffer against risk of infant neglect among mothers who themselves had been neglected or maltreated (Bartlett & Easterbrooks, 2015).

Other parental risk factors found related to child maltreatment and neglect outcomes were cognitive impairment (Fallon et al., 2013; Filippelli, Fallon, Trocmé et al., 2017), criminal history, paternal risk scores, complex caregiver networks (Duffy et al., 2014) and physical health issues (Fallon et al., 2013). These were not as strongly associated as the parental risk factors mentioned above.

Rijbroek et al. (2019) found that the most vulnerable subgroup was families with multi parental problems. These multi parental problems were significantly more present in families with children between 0-12 years old and were characterized by (violent) conflict, major life events, economic problems and social isolation and few protective factors. The next most vulnerable subgroup was families with children between 13-21, and was not related to either child or environmental factors. Instead it was characterized by severe single parental problems struggling with major life events and conflicts, but could potentially benefit from protective factors on all levels. Asking for help, feeling competent, emotional availability, being willing and able to change, positive self-image and support could work as positive buffers for the parental risk factors (Rijbroek et al., 2019).

### *3.2.3 Family and environmental risk factors*

The primary family and environment risk factors found related to child maltreatment and neglect were single-parent households and caregivers receiving benefits or unemployment as primary income (Fallon et al., 2013; Filippelli, Fallon, Trocmé et al., 2017; Palusci, 2011). Further, living in a household with at least one hazard was found both frequently (Filippelli, Fallon, Fuller-Thompson & Trocmé, 2017) and in small proportions (Filippelli, Fallon, Trocmé et al., 2017). Also, moving more than once in the past year (Filippelli, Fallon, Fuller-Thompson & Trocmé, 2017; Filippelli, Fallon, Trocmé et al., 2017) was identified as a family and environment risk factor. Additionally, regularly running out of money for basic necessities (Filippelli, Fallon, Fuller-Thompson & Trocmé, 2017), growing up in a neighborhood where drug use is prevalent (Freisthler et al., 2017) and social isolation (Rijbroek et al., 2019) increases the risk for child maltreatment or neglect.

However, family and environment protective factors working as buffers can decrease the chance of maltreatment and neglect. Bartlett and Easterbrooks (2015) found that social support served as a buffer against infant neglect, and there is a significant relationship between social support and parenting quality. Having a formal or informal network such as relatives could be considered as protective factors (Rijbroek et al., 2019).

### *3.3 Quality assurance of risk assessments*

5 of the 15 studies related to the quality of using actuarial risk assessment tools. These focused on the validity and reliability of the actuarial instruments used to assess children at risk in child protection and child welfare services.

#### *3.3.1 Validity*

The California Family Risk Assessment tool is designed to be short, user-friendly and easy to adapt when estimating the probability that a family referred to authorities for suspected child maltreatment will maltreat its child again in the future (Johnson, 2011). The validity of the assessment tool showed to be imperfect, but better than chance. High to very high-risk groups predicted probabilities that were less accurate, compared to low and moderate risk groups, which showed to be very accurate (Johnson, 2011). When the same tool was adapted to a certain state (Colorado), the tool showed to be reasonably accurate as the rate of re-report and re-substantiation increased as level of risk increased (Coohey, Johnson, Renner & Easton, 2012).

When compared to another state (Iowa), the original state performed better. The adapted tool however, classified only a small proportion of families as low-risk and a large proportion as moderate-risk. The revised tool (combination of adopted items and administrative database items), on the other hand, classified a larger proportion of low-risk and a smaller proportion of moderate and high risk (Coohey et al., 2012).

The validity testing of the assessment tool in the Netherlands showed to be modest (van der Put, Hermanns, van Rijn-van Gelderen & Sondeijker, 2016). The items in the assessment that most strongly related to future reports of child maltreatment were number of

prior neglect or abuse interventions, reports and/or investigations, and domestic violence. Only half of the items in the assessment tool were significantly related to maltreatment recurrence within two years (van der Put et al., 2016). When including items that are significantly associated with future maltreatment reports and experimental items with strong association to future reports, the validity improved.

### *3.3.2 Reliability*

When testing for interrater reliability in the actuarial assessment tool only 27 out of the 108 items showed to be either substantial to almost-perfect (Orsi, Drury & Macker, 2014). The most reliable risk items included demographic information about number and ages of people in the household, and current involvement with the CPS. The next most reliable risk items included substance abuse, mental health issues and domestic violence (Orsi et al., 2014). Items of caregiver's characteristics (lack of parenting skills, self-esteem or being pathetic or hopeless) had lower scores.

Another study examining the actuarial risk assessment tool in the Netherlands found the interrater reliability risk items to vary between fair to substantial (Vial, Assink, Stams & van der Put, 2019). The best interrater and intrarater reliability was shown in the item "younger than 5 years old", and the actuarial risk outcome based on all risk factors showed to be substantial to almost perfect. The lowest interrater reliability was the item involving caregiver's history of abusing the child (Vial et al., 2019). Safety items including child abduction, honor-related violence and domestic violence showed substantial to almost perfect interrater and intrarater reliability. Whereas safety items related to parental availability had the lowest interrater reliability and showed to be slight to moderate (Vial et al., 2019).

## **4 Discussion**

This scoping review systematically synthesizes the current literature on assessing risk for child maltreatment and neglect in child protection and child welfare services. There is a lot of research on assessing risk in the context of child protection services. Though, only 15 research articles met the inclusion criteria to answer the research questions. The risk factors related to maltreatment and neglect could be divided into three categories; (1) child

functioning, (2) parent care and (3) family and environment. The risk assessment tools showed to differ in both reliability and validity.

#### *4.1 Risk factors*

Infants were less likely to show risk factors compared to older children (Filippelli, Fallon, Fuller-Thompson & Trocmé, 2017). There were differences in identified risk factors according to age. Infants tended to show failure to meet developmental milestones, have physical disabilities and fetal alcohol syndrome (Fallon et al., 2013). Children younger than five years of age showed to have more emotional and learning problems (Palusci, 2011), whereas older children were associated to higher rates of physical harm (Ruiz-Casares et al., 2012). This shows the importance of considering differences in expressing risk of maltreatment and neglect from a child's perspective.

Further, the literature also implied that the primary caregiver's age also contributes to risk factors. Young primary caregivers of the age 21 and younger were more likely to demonstrate risk factors (Hovedstad et al., 2015; Filippelli, Fallon, Fuller-Thompson & Trocmé, 2017; Filippelli, Fallon, Trocmé et al., 2017). This is supported by later research implying that young mothers who are investigated present higher concentrations of risk factors for maltreatment and involvement with child welfare services including social, economic and emotional challenges (King, Fallon, Goulden, O'Connor & Filippelli, 2019). Primary caregiver risk factors regardless of age were dominating for occurrence of maltreatment and ongoing child welfare services (Filippelli, Fallon, Trocmé et al., 2017; Rijbroek et al., 2019), and the highest incidences identified of having at least one risk factor were caregivers to infants (Filippelli, Fallon, Trocmé et al., 2017). The parental risk factors can affect the psychological bond between the child and caregiver (Bowlby, 1969). The child can mirror the universal recognizable attachment behavior from the caregiver (Crittenden & Ainsworth, 1989), and express behavior of being maltreated or neglected. However, as the nature of attachment changes through development and each individual is considered born with innate assumptions (Bowlby, 1969), the child-parent relationship cannot rely solely on the attachment theory. As the child gets older it is being affected, but also affects its surroundings (Sameroff & Chandler, 1975). This implies that the same situation or

environment is not necessarily perceived equally as the experience is individual (Sameroff & MacKenzie, 2003).

The main motivation of the *Integrated Children's System* (ICS) adapted to Denmark is to put the needs of the child in focus. The ICS represents the ecological systems theory by using a triangle of the child's development, parental capacity and family and environmental factors. In a comparative study of different risk assessment models in Danish municipalities, Sørensen (2018) found that the users of the ICS ticked off twice as many risk than protective factors. Further, the factors mainly focused on the child, and not as much on the other domains when looking at the protective factors. These findings imply that the assessment framework does not give a holistic perspective of a family situation. Contradicting the intention of the framework, as identifying both problems and resources within a family has failed. Children at risk tend to live under conditions with multiple problems. The interaction between individual risk factors is complex and the reasons for challenging behavior is not always addressed (Vincent & Petch, 2017). Children can live with caregivers that are going through stressful events related to work, lack money for necessities and live in harmful or isolated environments (Filippelli, Fallon, Fuller-Thompson & Trocmé, 2017; Freisthler et al., 2017). Further, protective factors can have a significant impact on the child's needs (Rijbroek et al., 2019). This shows that there can be a transactional process of risk and protective factors in the child's micro-, meso- and exo system (Sameroff & Chandler, 1975; Brofenbrenner, 1979). It is important to gain enough information from all angles to achieve a holistic perspective as every challenge and need within a family is unique. This should be taken to consideration when the Norwegian CPS continues to study the development of a functioning risk assessment framework.

Different countries experience different challenges of risk. Research on increasing risk factors in Norway shows to differ somewhat from risk factors found in the analyses. For children, there has been a significant increase in risk factors related to age adequate development, school or day care functioning, emotional functioning and relations and interactions with peers and adults (Christiansen et al., 2019). There is also found a significant increase in parents' lack of understanding the child, stimulation, guidance and boundaries, as well as a significant increase of stressful life events, struggles with social networking, integration in close environments and work (Christiansen et al., 2019). These findings indicate that an assessment tool of risk factors in the Norwegian CPS cannot focus solely on

maltreatment and violence, but also needs to consider other factors influencing child functioning, parent care and their family and environment to provide the right services.

#### *4.2 Questioning the risk assessment tools*

The literature indicates progress in the development of risk assessment tools. However, there is still a need to further refine a risk assessment framework that would be of high quality for the Norwegian CPS. Several risk factors of child maltreatment and neglect found in the analyses were not found reliable or valid when assuring the quality of actuarial risk assessment tools. Only half of the items significantly related to recurrence within two years and the validity only improved when experimental items were added (van der Put et al., 2016). Further, only 27 out of the 108 items showed either substantial to almost-perfect interrater reliability (Orsi et al., 2014). Items relating to demographics or CPS involvement were the most reliable. These items are however factual and objective, and does not necessarily relate to risk of maltreatment and neglect. The only risk factors related to child maltreatment and neglect that were actually more subjective and found reliable were items related to substance abuse, mental health issues and domestic violence (Orsi et al., 2014). As well as items related to domestic violence showed stronger validity (van der Put et al., 2016).

With that said, previous research indicates that high levels of measurement error and increasing stability over time limits the tool's capacity to predict future allegations of maltreatment and neglect (Camasso & Jagannathan, 2000). Application of risk assessments in child protection practice is a potentially flawed process. It might not live up to the promise that safety and well-being can be predicted and managed (Gillingham, 2006). Managing risk requires a detailed understanding of circumstances affecting risk. Firth, Spanswick and Rutherford (2009) suggested that by identifying risk and protective circumstances facilitates identifying specific actions to manage risk. Therefore, the goal of a risk assessment tool needs to be prevention rather than prediction as circumstances are more important than probabilities (Firth et al., 2009). Risk assessment tools might need to expand to incorporate patterns over time and identify early indicators (Logan-Greene & Jones, 2018).

The most subjective items of primary caregiver characteristics showed lowest reliability (Orsi et al., 2014; Vial et al., 2019). This questions the quality of the tool. Lower reliability scores of primary caregiver characteristics also questions professional judgment.

The Norwegian CPS have nonetheless shown to be more uniform in their evaluations of risk when compared to other countries (Križ & Skivenes, 2013; Skivenes & Stenberg, 2015). This implies that professional discretion can play a crucial role when assessing children at risk in the CPS. A tool that is factual and objectively determinable might be beneficial, as long as it also gives room for professional subjectivity to the degree that professionals critically can make justified decisions that are supported.

The results also showed that the validity of a risk assessment were less accurate for those at highest risk (Johnson, 2011), which contradicts the purpose of protecting those in need. Differences in quality did however show to be dependent on a specific population (Coohey et al., 2012). This further indicates how important the research of developing a risk assessment tool is within a targeted population to gain enough information of how existing and new sets of items can be constructed and adapted into a valuable framework.

#### *4.3 Limitations to the study*

There are several limitations in the present study. As it is a scoping review, the findings are only being described and not criticized. The results can therefore be more challenging to interpret (Brien, Lorenzetti, Lewis, Kennedy & Ghali, 2010) and consequently limits the uptake into policy (Grant & Booth, 2009). Recommendations are subjective experiences and it is up to the stakeholders to determine how strongly the recommendations should be implemented (Levac et al., 2010). It is hard to compare assessments of risk when the child welfare systems and policies are very different from country to country. Further, the articles studying which risk factors related to child maltreatment and neglect in the analyses did not mention risk assessments. This limits the scoping review in that sense that risk factors and risk assessments combined could not be further discussed. The development of the search strategy and inclusion criteria might also have limited the search to the degree that not all the relevant literature has been included in the analyses.

#### *4.4 Further implications and conclusions*

This is a well-researched field, but there are gaps in the literature, particularly in a Norwegian child welfare context. Children at risk tend to live under conditions of multiple

problems, possibly with both risk and protective factors. Therefore, assessing a child's needs based solely on attachment with caregiver and on how the family and environmental systems influence might not be enough. As the nature of attachment, needs and expressing risk changes through development with innate assumptions taken to consideration, a transactional approach might provide a better understanding of a child's needs. For stakeholders in the Norwegian child welfare context, a development of a framework on assessing children at risk could be beneficial. By documenting their evaluations and analyzes for decision-making, their professional discretion can be combined with support from evidence-based research to strengthen their cases. This implies developing a risk framework that can provide critical thinking. This kind of model could be beneficial not only for caseworkers in the CPS, but also for other authorities connected to child development and families. Further, the high levels of measurement error limit the capacity of a risk assessment tool over time. The variability of quality within the risk assessment tools indicates how important testing and adapting the tool within a targeted population is to achieve high quality.

To conclude, the goal of a framework should be a risk assessment that works both in theory and practice. By developing a risk assessment framework that allows critical thinking and is of high quality, the decisions made in the Norwegian CPS cases can be better documented and supported.

## References

- Andersland, G. K. (2020, January 28). EMD-fellelsene: Konsekvenser for barnevern og rettslige organer. [The ECHR convictions: Consequences for the child protection services and judicial organs]. *Advokatbladet*. Retrieved from  
<https://www.advokatbladet.no/barnevern-emd/emd-fellelsene-konsekvenser-for-barnevern-og-rettslige-organer/147214>
- Arksey, H., & O'Malley, L. (2005). Scoping studies: towards a methodological framework. *International journal of social research methodology*, 8(1), 19-32.  
<https://doi.org/10.1080/1364557032000119616>
- Bartlett, J. D., & Easterbrooks, M. A. (2015). The moderating effect of relationships on intergenerational risk for infant neglect by young mothers. *Child abuse & neglect*, 45, 21-34.  
<http://dx.doi.org/10.1016/j.chab.2015.02.018>
- Bowlby, J. (1969). Attachment and loss v. 3 (Vol. 1). *Random House*. Furman, W., & Buhrmester, D. (2009). Methods and measures: The network of relationships inventory: Behavioral systems version. *International Journal of Behavioral Development*, 33, 470-478.
- Brien, S. E., Lorenzetti, D. L., Lewis, S., Kennedy, J., & Ghali, W. A. (2010). Overview of a formal scoping review on health system report cards. *Implementation Science*, 5(1), 2.  
<https://doi.org/10.1186/1748-5908-5-2>
- Bronfenbrenner, U. (1979). Contexts of child rearing: Problems and prospects. *American psychologist*, 34(10), 844.
- Camasso, M. J., & Jagannathan, R. (2000). Modeling the reliability and predictive validity of risk assessment in child protective services. *Children and Youth Services Review*, 22(11-12), 873-896. [https://doi.org/10.1016/S0190-7409\(00\)00121-3](https://doi.org/10.1016/S0190-7409(00)00121-3)
- Coohey, C., Johnson, K., Renner, L. M., & Easton, S. D. (2013). Actuarial risk assessment in child protective services: Construction methodology and performance criteria. *Children and Youth Services Review*, 35(1), 151-161. <http://dx.doi.org/10.1016/j.childyouth.2012.09.020>
- Christiansen, Ø., Skaale, K. J. H., Iversen, A. C., Fylkesnes, M. K., Lauritzen, C., Nygård, R. H., Jarlby, F. & Vis, S. A. (2019) *Barnevernets undersøkelsesarbeid – fra bekymring til*

*beslutning* (Delrapport 4). [*The child welfare's investigation work – from worry to decision . (Subreport 4)*]. RKBU Nord.

Crittenden, P. M., & Ainsworth, M. D. (1989). *14 Child maltreatment and attachment theory* (pp. 432-463). London, England: Cambridge University Press.

D'andrade, A., Austin, M. J., & Benton, A. (2008). Risk and safety assessment in child welfare: Instrument comparisons. *Journal of Evidence-Based Social Work*, 5(1-2), 31-56. [https://doi.org/10.1300/J394v05n01\\_03](https://doi.org/10.1300/J394v05n01_03)

Department of Health. (2000). *Framework for the Assessment of Children Need and their Families*. Retrieved from <https://webarchive.nationalarchives.gov.uk/20130404002518/https://www.education.gov.uk/publications/eOrderingDownload/Framework%20for%20the%20assessment%20of%20children%20in%20need%20and%20their%20families.pdf>

Duffy, J. Y., Hughes, M., Asnes, A. G., & Leventhal, J. M. (2015). Child maltreatment and risk patterns among participants in a child abuse prevention program. *Child abuse & neglect*, 44, 184-193. <https://doi.org/10.1016/j.chab.2014.11.005>

Fallon, B., Ma, J., Allan, K., Pillhofer, M., Trocmé, N., & Jud, A. (2013). Opportunities for prevention and intervention with young children: lessons from the Canadian incidence study of reported child abuse and neglect. *Child and adolescent psychiatry and mental health*, 7(1), 4. <https://doi.org/10.1186/1753-2000-7-4>

Filippelli, J., Fallon, B., Fuller-Thomson, E., & Trocmé, N. (2017). Infants investigated by the child welfare system: Exploring a distinct profile of risks, service needs, and referrals for support in Ontario. *Brain sciences*, 7(8), 101. <https://doi.org/10.3390/brainsci7080101>

Filippelli, J., Fallon, B., Trocmé, N., Fuller-Thomson, E., & Black, T. (2017). Infants and the decision to provide ongoing child welfare services. *Child and adolescent psychiatry and mental health*, 11(1), 24. <https://doi.org/10.1186/s13034-017-0162-7>

Firth, H., Spanswick, M., & Rutherford, L. (2009). Managing multiple risks: Use of a concise risk assessment format. *Child and adolescent mental health*, 14(1), 48-52. <https://doi.org/10.1111/j.1475-3588.2008.00514.x>

Freisthler, B., Wolf, J. P., Wiegmann, W., & Kepple, N. J. (2017). Drug use, the drug environment, and child physical abuse and neglect. *Child maltreatment*, 22(3), 245-255. <https://doi.org/10.1177/1077559517711042>

Gillingham, P. (2006). Risk assessment in child protection: Problem rather than solution?. *Australian Social Work*, 59(1), 86-98. <https://doi.org/10.1080/03124070500449804>

Grant, M. J., & Booth, A. (2009). A typology of reviews: an analysis of 14 review types and associated methodologies. *Health Information & Libraries Journal*, 26(2), 91-108. <https://doi.org/10.1111/j.1471-1842.2009.00848.x>

Helsetilsynet. (2012, March 7). *Oppsummering av landsomfattende tilsyn i 2011 med kommunalt barnevern – undersøkelse og evaluering*. (Rapport 2/2012). [Summary of nationwide supervision in 2011 with municipal child welfare – investigation and evaluation (Report 2/2012)]. Retrieved from [https://www.helsetilsynet.no/globalassets/opplastingar/publikasjoner/rapporter2012/helsetilsynetrapport2\\_2012.pdf](https://www.helsetilsynet.no/globalassets/opplastingar/publikasjoner/rapporter2012/helsetilsynetrapport2_2012.pdf)

Hovdestad, W., Shields, M., Williams, G., & Tommyr, L. (2015). Vulnerability within families headed by teen and young adult mothers investigated by child welfare services in Canada. *Health promotion and chronic disease prevention in Canada: research, policy and practice*, 35(8-9), 143.

Johnson, W. L. (2011). The validity and utility of the California Family Risk Assessment under practice conditions in the field: A prospective study. *Child Abuse & Neglect*, 35(1), 18-28. <https://doi.org/10.1016/j.chab.2010.08.002>

Kalajdzic, P., Gildestad, B. A. & Roalsø, M. (2020, February 4). Nå skal Høyesterett legge klare barnevernføringer. [Now the Supreme Court will lay clear child welfare guidelines] NRK. Retrieved from <https://www.nrk.no/norge/na-skal-hoyesterett-legge-klare-barnevern-foringer-1.14888005>

King, B., Fallon, B., Goulden, A., O'Connor, C., & Filippelli, J. (2019). What Constitutes Risk of Future Maltreatment Among Young Mothers? An Examination of Child Protection Investigations in Ontario, Canada. *Families in Society*, 100(4), 409-421. <https://doi.org/10.1177/1044389419847319>

Križ, K., & Skivenes, M. (2013). Systemic differences in views on risk: A comparative case vignette study of risk assessment in England, Norway and the United States (California). *Children and Youth Services Review*, 35(11), 1862-1870. <https://doi.org/10.1016/j.childyouth.2013.09.001>

Kvello, Ø. (2010). *Barn i risiko: skadelige omsorgssituasjoner. [Children at risk; harmful caretaking situations]*. Oslo: Gyldendal akademisk.

Lauritzen, C, Vis, S.A, Havnen, K.J.S., Fossum, S. (2017). *Barnevernets undersøkelsesarbeid - Evaluering av Kvellomalen*. (Delrapport 2). [*The child welfare's investigation work – Evaluation of the Kvello model*. (Subreport 2)]. Tromsø RKBU Nord.

Levac, D., Colquhoun, H., & O'Brien, K. K. (2010). Scoping studies: advancing the methodology. *Implementation science*, 5(1), 69. <https://doi.org/10.1186/1748-5908-5-69>

Lovdata. (2018). Lov om barneverntjenesten (barnevernloven). [The Norwegian Child Welfare Act (The child welfare law)] Retrieved from [https://lovdata.no/dokument/NL/lov/1992-07-17-100#KAPITTEL\\_1](https://lovdata.no/dokument/NL/lov/1992-07-17-100#KAPITTEL_1)

Logan-Greene, P., & Semanchin Jones, A. (2018). Predicting chronic neglect: Understanding risk and protective factors for CPS-involved families. *Child & family social work*, 23(2), 264-272. <https://doi.org/10.1111/cfs.12414>

Orsi, R., Drury, I. J., & Mackert, M. J. (2014). Reliable and valid: A procedure for establishing item-level interrater reliability for child maltreatment risk and safety assessments. *Children and youth services review*, 43, 58-66. <https://doi.org/10.1016/j.childyouth.2014.04.016>

Palusci, V. J. (2011). Risk factors and services for child maltreatment among infants and young children. *Children and Youth Services Review*, 33(8), 1374-1382. <https://doi.org/10.1016/j.childyouth.2011.04.025>

Rijbroek, B., Strating, M. M., Konijn, H. W., & Huijsman, R. (2019). Child protection cases, one size fits all? Cluster analyses of risk and protective factors. *Child abuse & neglect*, 95, 104068. <https://doi.org/10.1016/j.chab.2019.104068>

Ruiz-Casares, M., Trocmé, N., & Fallon, B. (2012). Supervisory neglect and risk of harm. Evidence from the Canadian child welfare system. *Child abuse & neglect*, 36(6), 471-480. <https://doi.org/10.1016/j.chab.2012.03.005>

Sameroff, A. J., & Chandler, M. J. (1975). Reproductive risk and the continuum of caretaking casualty. *Review of child development research*, 4, 187-244.

Sameroff, A., & MacKenzie, M. J. (2003). Research strategies for capturing transactional models of development: The limits of the possible. *Development and Psychopathology*, 15, 613-640. <https://doi.org/10.1017/S0954579403000312>

Sameroff, A., Seifer, R., & McDonough, S. C. (2004). Contextual contributors to the assessment of infant mental health. In R. DelCarmen-Wiggins & A. Carter (Eds.), *Handbook of infant, toddler, and preschool mental health assessment* (pp. 61-76). Oxford: Oxford University Press.

Skivenes, M., & Stenberg, H. (2015). Risk assessment and domestic violence—how do child welfare workers in three countries assess and substantiate the risk level of a 5-year-old girl?. *Child & Family Social Work*, 20(4), 424-436. <https://doi.org/10.1111/cfs.12092>

Socialstyrelsen. (2006). *Grundbok – barns behov i centrum, BBIC. [Text book – Children's needs in focus]*. Stockholm: Socialstyrelsen

Sørensen, K. M. (2018). A comparative study of the use of different risk-assessment models in Danish municipalities. *British Journal of Social Work*, 48(1), 195-214. <https://doi.org/10.1093/bjsw/bcx030>

UK Public General Acts. (1989). Children Act 1989. Retrieved from <http://www.legislation.gov.uk/ukpga/1989/41/contents>

van der Put, C. E., Hermanns, J., van Rijn-van Gelderen, L., & Sondeijker, F. (2016). Detection of unsafety in families with parental and/or child developmental problems at the start of family support. *BMC psychiatry*, 16(1), 15. <https://doi.org/10.1186/s12888-016-0715-y>

VIA University College, Professionshøjskolen Metropol, University College Lillebælt & University College Syddanmark. (2012). *Barnets velfærd i centrum - ICS Håndbog [The Welfare of the Child at the Centre—ICS Handbook]*, Odense, Socialstyrelsen.

Vial, A., Assink, M., Stams, G. J. J., & van der Put, C. (2019). Safety and risk assessment in child welfare: A reliability study using multiple measures. *Journal of Child and Family Studies*, 28(12), 3533-3544. <https://doi.org/10.1007/s10826-019-01536-z>

Vincent, S., & Petch, A. (2017). Understanding child, family, environmental and agency risk factors: findings from an analysis of significant case reviews in Scotland. *Child & Family Social Work*, 22(2), 741-750. <https://doi.org/10.1111/cfs.12290>

Vis, S. A., Lauritzen, C., & Fossum, S. (2019). Systematic approaches to assessment in child protection investigations: A literature review. *International Social Work*, 0020872819828333. <https://doi.org/10.1177/0020872819828333>

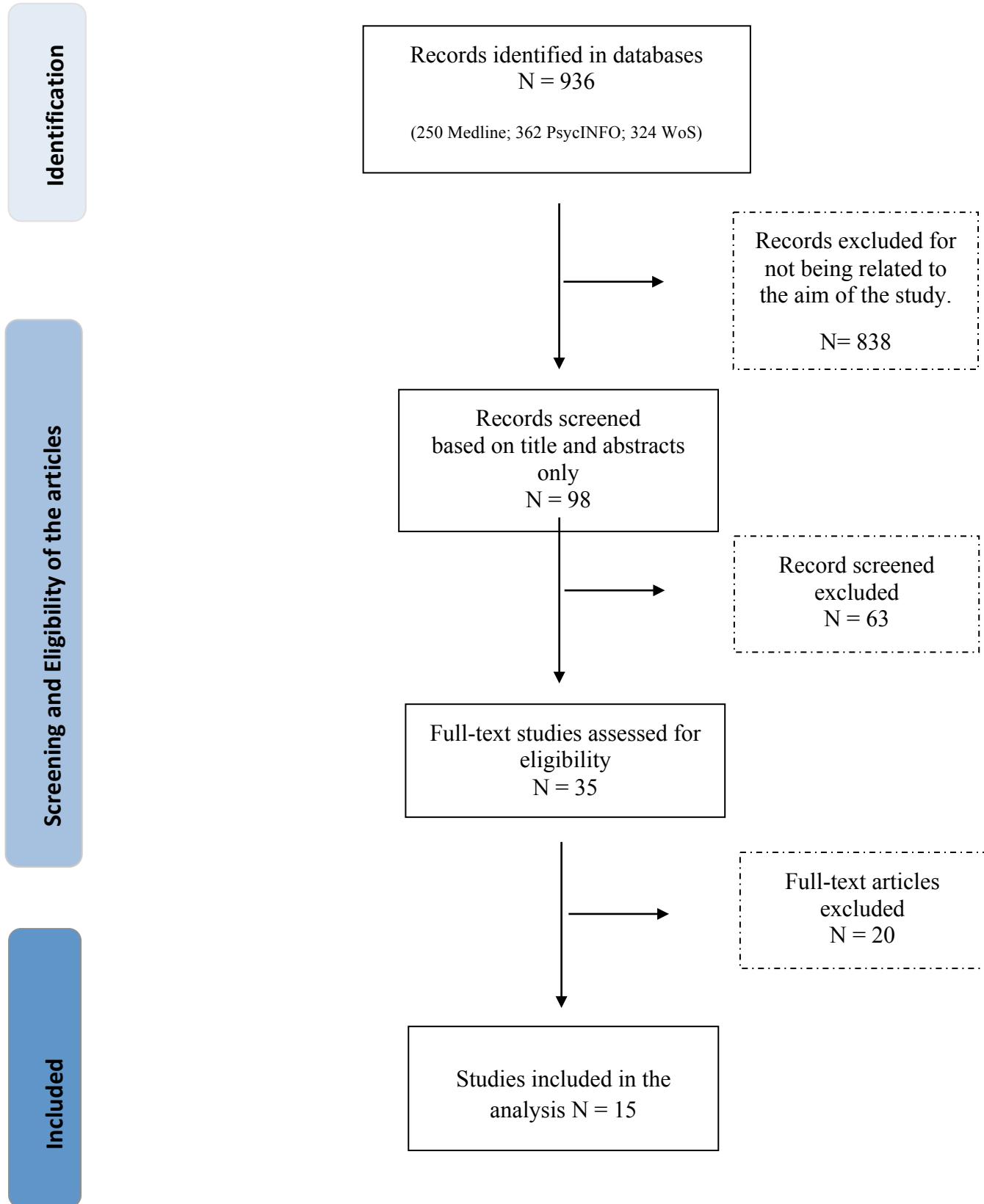
## Appendix

Table 1. Syntaxes used in the databases

<b>Risk assessment</b>	<b>Child Maltreatment</b>	<b>Child welfare services</b>
“Risk factor” OR	“Child neglect” OR	“Social worker”
“Risk assessment”	“Neglect” OR	OR “Child welfare
OR “Assessment framework” OR	“Child abuse” OR	worker” OR
“Risk analysis” OR	“Child-abuse” OR	“Social work” OR
“Risk-assessment”	“Child abuse and neglect” OR	“Child welfare system” OR “Child protective service”
OR “Decision-making” OR	“Child maltreatment” OR	OR “Caseworkers”
“Predictive risk modeling” OR	“Maltreatment”	OR “Child welfare” OR
“Actuarial models” OR	OR “Child-maltreatment” OR	“Child welfare services” OR
“Structured decision making”	“Domestic violence” OR	“Child protection”
OR “Child well-being scale” OR	“Physical discipline” OR	OR “CPS” OR
“Decision-making process” OR	“Physical abuse”	“Protective services” OR
“Actuarial assessment” OR	OR “Sexual abuse” OR	“Social-workers”
“Consensus-based assessment”	“Sexual-abuse”	OR “Child welfare workers” OR
	OR “Child sexual abuse” OR	“Child-welfare workers” OR
	“Corporal punishment” OR	“Child protection workers”
	“Assault” OR	
	“Adverse childhood experiences” OR	
	“Recurrent maltreatment”	

Table 2. Inclusion and exclusion criteria

	<b>Inclusion</b>	<b>Exclusion</b>
<b>Databases</b>	Web of Science, PsycINFO and MEDLINE	All other databases
<b>Time frame</b>	2009-2019	Published before 2009
<b>Publication types</b>	Peer-reviewed original articles available online in full text	All other types of publications
<b>Type of studies</b>	Studies with quantitative designs	Studies with other designs
<b>Focus</b>	Studies that focused on assessing risk in the child protection/welfare services in Europe, Australia and North America	Studies that focused on assessing risk in other systems and other countries
<b>Language</b>	English	All other languages



**Figure 1.** Flow chart diagram of the study selection

Table 3. Summary table of the articles included in the analysis.

Author, year	Country	Aim	Description			
			Method /Design	Sample	Principal results	Limitations
Bartlett and Easterbrooks (2015)	USA	Examined whether certain factors buffer intergenerational risk for neglect among infants of young mothers	Randomized controlled trial	447 young mothers (21 and younger at childbirth)	Mothers who were childhood victims of more than one type of maltreatment had heightened risk for infant neglect. Social support served as buffer against infant neglect.	The study did not incorporate some correlates of neglect that might help explain continuity and discontinuity. Mother's childhood maltreatment, positive care and maternal empathy relied on self-reports.
Coohey et al. (2012)	USA	Presented a construction methodology to develop and refine an actuarial risk assessment	Prospective study design	6832 families who were reported for maltreating a child (2003-2004)	The adopted Colorado Family Risk Assessment was reasonably accurate, had an adequate predictive accuracy and utility.	The study did not test for reliability or external validity. The study only looked at families with substantiated maltreatment and cannot be generalized.
Duffy et al. (2014)	USA	Examined the relationship between parental risk factors and the substantiation status and number of CPS reports in families in a statewide prevention program	Case-control analyses	1125 families involved in Nurturing Families Network between 2006-2008	It was found very high levels of parental risk. Domestic violence and criminal history in mothers and fathers' lives, paternal risk score, and complex caregiver networks were related to maltreatment	By not including records of families who did not sign consent, the presence of some of the risk factors and the associations found may have been underestimated. The study relied on the reports of CPS workers, leading to incomplete data regarding risk factors.

					outcomes.	
Fallon et al. (2013)	Canada	Examined maltreatment-related investigations involving children under the age of one to identify which factors determine service provision at the conclusion of the investigation.	Ecological study design	1203 profile investigations involving children under the age of one year.	Primary caregiver risk factors (poverty, single-parenthood, drug/solvent/alcohol abuse, mental health issues, lack of social supports and intimate partner violence) are the strongest predictor of the decision to transfer to ongoing services.	The data from 2008 was not independently verified. It only represents the concerns that are present during an investigation period with an average of six weeks.
Filippeli et al. (2017)	Canada	To find the clinical characteristics (child, primary caregiver, household characteristics, case and service) of maltreatment investigations involving infants. And, find the characteristics that influence and are most predictive of the decision to transfer a case to ongoing child welfare service.	Cross-sectional study design	7915 case investigations from 17 different child welfare agencies involving infants under the age of one.	Primary caregiver risk factors were predominant. Caregivers of infants are struggling with numerous challenges that can adversely compromise their ability to meet the developmental needs of the infant.	The study did not track long-term service beyond initial investigation, which may not be enough time for a comprehensive assessment of child and caregiver functioning.
Filippeli et al. (2017)	Canada	Examined age-specific differences in clinical and case characteristics to determine the factors	Cross-sectional study design	7915 investigations involving infants under the age of one year compared to children in	The profile of infants and their families differs distinctly from those of older children with	The data collected were not independently verified and was only representative of an investigative period of 30 days

		associated with the service referral decision involving infants, and explore the types of services families have been referred to at the conclusion of a maltreatment-related investigation.		preschool (1-3), early school-age (4-7), pre-adolescent (8-11) and adolescent (12-15).	respect to risk, service needs and service referrals. Infants were most likely to have primary caregiver risk factors identified.	after the case had opened. The amount of variance explained by the model was small.
Freisthler et al. (2017)	USA	Assessed the relationship between indicators of drug demand and drug supply on physical abuse, physical neglect, and supervisory neglect in a general population sample	Ecological study design	2597 respondents from 42 cities with valid police data on narcotics incidents	Parents using drugs in areas with greater availability reported more physical abuse and physical neglect. Emotional support was protective of all types of maltreatment.	Some variables were not controlled for and could be influencing the results. The lower response rate may mean that biases may exist. By dichotomizing the drug use measures, specificity on differences between infrequent and frequent users was lost.
Hovedstad et al. (2015)	Canada	Examined the relationship between young mothers families and the increased risk of child maltreatment and other poor health and social outcomes	Cross-sectional study design	N = 6836  Teen mothers (n= 284), young adult mothers aged 19-21 (n=800) and mothers aged 22 years or older (n=5752)	Families with young mothers (21 and younger), and alcohol and drug problems were more likely to demonstrate risk factors	It was not reported if some of the older mothers might have been teen mothers at an earlier phase of their lives. The socioeconomic status was limited, and did not consider potential effects of social and cultural support for early childbearing on the risk factors assessed.

Johnson (2011)	USA	Analyzed the validity and implementation of a child maltreatment risk assessment model, The California Family Risk Assessment.	Prospective study design	7685 child maltreatment reports assessed with the CFRA between January and June of 2000 in California.	The risk assessment was found to be imperfect, but had a better than chance predictive validity.	There was found an absence of blinding. There was lack of an arrangement to prevent child welfare workers that are investigating new maltreatment allegations from knowing results of risk assessments done in earlier index investigations.
Orsi, Drury & Mackert (2014)	USA	Examined the interrater reliability for 108 individual risk and safety items	Prospective study design	54 child welfare caseworkers and supervisors	27 items displayed either substantial or almost-perfect interrater agreement. In the risk assessment, the most reliable items included demographic information and current CPS involvement. Next most reliable groups were substance abuse, mental health issues and domestic violence. Caregiver characteristics showed low reliability due to subjectivity.	There was found difficulty related to statistical analysis of characteristics with low prevalence. Further, an inability to fully assess reliability of strength-based items,
Palusci (2011)	USA	Examined risk factors and the effects of services in confirmed maltreatment investigations and recurrence	Prospective study design	177,568 confirmed reports from the NCANDS Child File, 2003-2007	Infants and young children have different risk factors than older children in the CPS system.	Important variables such as attachment, maladaptive personalities, parental history of child abuse, maternal education, depression, single

		over five years			Children 5 years and younger are more related to neglect and medical neglect. Children exposed to drug/alcohol problems and other medical problems were at increased risk of child maltreatment.	parenting, social-well being, and prenatal and perinatal factors were not included.
Rijbroek et al. (2019)	The Netherlands	To distinguish how the CPS subgroups based on risk and protective factors enables tailor made management that fits the specific needs of these subgroups	Ecological study design	250 Dutch CPS cases of family supervision by court order (2014-2015). The average age of child was 8,5 years and 53% were male.	The most vulnerable families are parents with multiple problems or socio-economic problems. Both groups have limited protective factors.	The study left out factors that were mentioned in the literature as relevant contributors due to low frequencies. The study depended highly on the registration behavior of professionals guided by standardized protocols that are not validated instruments.
Ruiz-Casares, et al. (2012)	Canada	Explored the prevalence and characteristics associated with supervisory neglect and physical harm in children in the child welfare system in Canada	Case-control study design	3380 cases of substantiated primary maltreatment investigations in the 2008 Canadian Incidence Study of Reported Child Abuse and Neglect.	Supervisory neglect was the primary concern and child risk factors are often present in cases of supervisory neglect with physical harm. Supervisory neglect involved more overcrowded housing conditions, the children were younger and were less likely to have any functioning	The data only represent child welfare workers judgments at the time of investigation, and unreported cases or other reports were screened out. There cannot be drawn any causality inferences with the cross-sectional data and the sub-samples were small.

					issue.	
Van der Put et al. (2016)	The Netherlands	Examined the predictive validity of the California Family Risk Assessment in the Netherlands in families with parenting and/or child development problems, to test the added value of experimental items on the predictive validity, and whether the predictive validity could be improved by modifying the scoring procedure.	Prospective study design	491 Dutch families with at least one child aged 0-12 and who had been referred to specialized and more extensive family support because of parenting/child developmental problems between 2009-2011.	About half of the individual CFRA items were not related to future reports of child maltreatment. The predictive validity was found to be modest. By adding experimental items and modifying the scoring procedure by only including items significantly associated with future maltreatment reports resulted in high predictive validity.	Did not verify the 6-month follow-up reports of child maltreatment by field investigations, and the outcome measure might therefore consist partly of false reports. Rates of child maltreatment might be an underestimation of the actual rates.
Vial et al. (2019)	The Netherlands	To determine the reliability of the Actuarial Risk Assessment Instrument for Youth Protection by examining the inter- and intrarater reliability	Ecological study design	N = 128 Two Dutch agencies (Child and family support n = 39 and Child protection n=24) and master students (n=65)	Items and outcome of the safety assessment instrument showed a moderate or higher than moderate interrater reliability, and a substantial-to-high intrarater reliability. The risk assessment outcome had a near perfect interrater reliability and a substantial to almost perfect intrarater reliability.	The insufficient variety in risk levels may have caused an inflated reliability of the actuarial risk. The professionals only rated vignettes of their own agencies, and therefore unknown how reliable the professionals rate vignettes of an other agency.

Table 4. General characteristics of the included articles.

	N	%
Publication year		
2009-2010	0	0
2011 - 2015	9	60
2016 - 2019	6	40
Origin of publications		
North America		
Canada	5	33,3
USA	7	46,7
Europe		
The Netherlands	3	20
Design		
Randomized controlled trial	1	6,7
Case-control analysis	2	13,3
Cross-sectional study design	3	20
Prospective study design	5	33,3
Ecological study design	4	26,7
Sample size		
0-1000	5	33,3
1000-5000	4	26,7
5000 and more	6	40
Theme		
Risk factors	10	66,7
Risk assessments	5	33,3

## VEDLEGG 2

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