Faculty of Health Sciences

Departement of Clinical Medicine

From policy to practice

*Implementing changes in law
to support and protect children of ill parents*

—

Bjørg Eva Skogøy
Avhandling levert for graden Philosophiae Doctor – April 2019

Contents

Acknowledgements

Abbreviations

AIF	Active Implementation Framework
ANOVA	Analysis of variance
EBM	Evidence Based Medicine
EBP	Evidence Based Practice
C	Clinicians
CATPCA	Categorical Principal Component analysis
CRP	Child Responsible Personnel
DV	Dependent variables
FaPMI	Family and Parental Mental Illness
FFP	Family Focused Practice
FFPQ	Family Focused Practice Questionnaire
SFP	Strengthening Families Programme
GIF	Generic Implementation Framework
H-CRP	Hospital coordinators
HT	Health Trust
ICQ	Implementation Component Questionnaire
ISS	Implementation Satisfaction Scale
IV	Independent variables
KBP	Kunnskapsbasert praksis (Evidence based practice)
KVÅ	Klassifikasjon av vårdåtgärder (Activity codes)
LOCI	Leadership and organizational change for implementation intervention
REK	Regional Committee for Medical and Health Research Ethics
RCT	Randomized Control Trial
RHA	Regional Health Authority
SPSS	Statistical Package for the Social Sciences
QOL	Quality of Life

Summary

Children of parents with serious forms of illness have shown to be vulnerable to developing a wide variety of psychosocial problems themselves. The research literature strongly indicates that preventive interventions may protect against well-documented trans-generational risk factors and strengthen the children's resilience by promoting protective factors. Despite this knowledge, there is a gap between what we know from research and the implementation of preventive efforts on a larger scale.

In 2010, Norway became one of the first countries to require by law that all health professionals play a part in the prevention of psychosocial problems in children of parents with all kinds of illnesses (mental illness, substance abuse, or severe physical illness or injury). This thesis contributes to the understanding of how these policy changes were received by some Norwegian hospitals and health professionals, and whether the changes in law were implemented as intended.

The first area of investigation, using Fixsen's Active Implementation Framework, examined the extent to which the new law had been implemented as intended. The data consisted of a stratified, random sample of managers and child responsible personnel ($N=$ 167) from five hospitals filling in an adapted version of the Implementation Components Questionnaire (ICQ) and the Implementation Satisfaction Scale (ISS) about the implementation of the policy changes. Additional information was collected from 21 hospital coordinators (H-CRP) from 16 other hospitals. The first study found important implementation differences between the five hospitals, with the lowest implementation scores from the smallest hospital. The conclusion was that the policy changes are helpful, but quality improvements are needed to secure equal support and protection for all children of ill parents.

The second area of investigation examined health professionals' ($N = 280$) adherence to the new guidelines of family focused practice, using a translated and generic version of the Family Focused Mental Health Practice Questionnaire (FFPQ). The results showed that the health professionals scored high on knowledge and skills, and they were confident working with families and children, but reported moderate levels of family support and referrals. This indicated that the hospitals were still in an initial implementation stage of the policy changes. Significant differences were observed between the hospitals regarding workplace support, knowledge and skills, and family support. It was concluded that the differences in the implementation of family focused practice highlights the need to tailor improvement strategies to specific barriers at the different hospitals.

The third area of investigation examined differences in family focused practice between health professionals with different backgrounds and roles ($N = 280$) and explored predictors of family focused practice. The study identified clear differences in family focused practices between the different types of health professionals (nurses, social workers, physicians, and psychologists), and between health professionals appointed to the role of child responsible personnel compared to other clinicians. The conclusion was that hospitals must secure workplace support, time for family work and co-worker support/supervision, and collaborate with others to establish services that are available to families. Improvement strategies must be tailored to the different types of health professionals, with greater emphasis needed to encourage the family focus of physicians and psychologists.

Collectively, the findings of this thesis contribute to a better understanding of hospitals and the health professional's role in the implementation of a new policy, law and guidelines. Leadership has a key role in securing resources needed to implement changes both to the inner context (organisation), and to collaborate with other context /systems (e.g. universities, municipalities, and non-governmental organisations) to develop the health professional's

competency and to establish high-quality services for families and children. The thesis also contributes to the understanding that the health professional's adherence to the new guidelines varies between the less complex practices (talking with parents about children's needs) and the more complex practices (family support and referrals). Furthermore, the more complex a practice is that is to be implemented, the more important the organizational support will be. The health professional's knowledge and skills are essential to achieve an actual practice change. However, it might be more challenging to have practitioners with a higher level of education (physicians and psychologist) comply with the new requirements. The thesis also contributes to the understanding that smaller organisations might have fewer resources to follow up on innovations (new ideas and practices) such as the policy changes. Further research should explore whether differences between types of practitioners and between hospitals are consistent over time. National health authorities should establish national quality indicators and consider strategies to better support the implementation process. Making use of implementation theories and improvement strategies could promote full (increased) implementation, where all families and children in need are identified and have access to family support.

Norsk sammendrag [Summary in Norwegian]

Barn med syke foreldre har større risiko for å utvikle egne psykososiale vansker. For barna er det både viktig at de får støtte her og nå, men også at det settes inn forebyggende tiltak som kan styrke motstandskraften og beskytte mot utvikling av sykdom, skoleproblemer og lavere livskvalitet. Til tross for at vi har kunnskap om virksomme forebyggende tiltak, er det et gap mellom det vi vet fra forskning og i hvilken grad forebyggende tiltak iverksettes i større skala.

I 2010, ble Norge et av de første landene som innførte en lovendring der alt helsepersonell skal bidra til å forebygge psykososiale vansker hos barn som er pårørende til foreldre med alvorlig sykdom (psykisk sykdom, rusproblemer, fysisk sykdom eller skade). Målet med doktorgradsavhandlingen var å øke kunnskapen om hvordan lovendringen om barn som pårørende ble implementert i norske helseforetak, og hvordan helsepersonell fulgte opp de nye retningslinjene om en mer familiefokusert praksis.

I den første studien undersøke vi i hvilken grad den nye lovendringen ble implementert, ved hjelp av Fixsens Active Implementation Framework. Dataene besto av et stratifisert, tilfeldig utvalg av ledere og barnansvarlig personell ($N = 167$) fra fem helseforetak, som besvarte spørreskjemaet Implementation Components Questionnaire (ICQ) og Implementation Satisfaction Scale (ISS), som omhandlet implementeringen av lovendringen. I tillegg ble det samlet inn informasjon fra 21 foretakskoordinatorer fra 16 andre helseforetak.

Vi fant klare forskjeller mellom de fem helseforetakene. Det minste foretaket skåret signifikant lavere på ledelse, datasystemer for beslutningstøtte og veiledning. Analyser av data fra foretakskoordinatorer i 19 helseforetak pekte i samme retning, og viste at mindre

helseforetak kan ha større utfordringer med å implementere lovendringen. Det var også klare forskjeller i om helsepersonell hadde registrert barna i foreldrenes journal.

Den nye lovendringen har bidratt til viktige endringer i helseforetakene, men det er nødvendig med kvalitetsforbedringer for å sikre at alle barn med syke foreldre får et likeverdig tilbud om informasjon, støtte og beskyttelse.

I den andre studien undersøkte vi om det var forskjeller i familiefokusert praksis blant helsepersonell ($N = 280$) ved fem helseforetak, ved hjelp av en tilpasset versjon av Family Focused Mental Health Practice Questionnaire (FFPQ).

Vi fant at helsepersonell skåret høyt på kunnskap og ferdigheter, og følte seg trygge på å jobbe med familier og barn, men til tross for dette, skåret de nokså lavt på familiestøtte og henvisning av foreldre og/eller barn til andre tjenester. Dette indikerte at helseforetakene var i begynnende implementeringsfase, der kunnskapen bare i mindre grad var tatt i bruk.

Det var imidlertid signifikante forskjeller mellom helseforetakene på hvilken støtte helsepersonell fikk fra arbeidsplassen, hvilken kunnskap og ferdigheter de hadde, og i hvilken grad de ga støtte til familiene. Helseforetak som hadde best skåre, hadde god lederstøtte og foretakskoordinator som sikret opplæring og veiledning til barneansvarlig personell og øvrige helsepersonell. Forskjellene i hvordan man hadde lyktes med å implementere nye retningslinjer om en familiefokusert praksis mellom helseforetakene understreker behovet for å skreddersy forbedringsstrategier til barrierer ved det enkelte helseforetaket.

I den tredje studien undersøkte vi om det var forskjeller i familiefokusert praksis mellom helsepersonell ($N = 280$) med ulik utdanning (sykepleier, sosionom, lege, psykolog) og rolle (barneansvarlig personell og annet helsepersonell). Vi undersøkte også hva som predikerte støtte til familiene.

Vi fant klare forskjeller i familiefokusert praksis mellom helsepersonell med ulik utdanning, med høyest skåre fra sosionomer, etterfulgt av sykepleiere. Barneansvarlig personell hadde høyere kunnskap og kjente seg tryggere i å arbeide med familier, og de henviste oftere til videre hjelp. Kunnskap og ferdigheter, nylig utdannet/ung og det å være kvinne predikerte samtaler med foreldre om barns behov. Støtte fra kollegaer predikerte samtaler med barn. Å tilby familiestøtte var i støtte grad avhengig av organisasjonsmessige forhold som at helsepersonell hadde fått avsatt tid til familiearbeid, at de hadde fått særlig opplæring og at de hadde støtte fra kolleger. Andre ting som predikerte familiestøtte var at helsepersonell hadde god kunnskap og evne til å vurdere hvordan foreldres sykdom påvirker barna. Helsepersonells kjønn (kvinne) og profesjon (sosionomer og sykepleiere) predikerte også familiestøtte.

Samlet bidrar resultatene fra denne avhandlingen til en bedre forståelse av hvordan helseforetak og helsepersonell kan lykkes i implementering av ny politikk, lovendring og retningslinjer. Ledelsen har en sentral rolle for å sikre at det er tilstrekkelige ressurser til endringer innad i helseforetaket. Det er også viktig at man samarbeider med andre instanser (f.eks. universiteter, kommuner og frivillige organisasjoner), både i utvikling helsepersonellets kompetanse i familiefokusert arbeid og for å utvikle forebyggende tiltak til familier og barn, når foreldre er syke.

Studien viste at helsepersonells oppfølging av de nye retningslinjene varierer mellom mindre kompleks praksis (snakke med foreldrene om barnas behov) og de mer komplekse praksiser (familiestøtte og henvisninger). Jo mer kompleks praksis som skal implementeres, desto viktigere er støtten fra organisasjonen.

Avhandlingen viste at mindre helseforetak lyktes dårligere i implementeringsprosessen, og kan ha utilstrekkelige innovative ressurser for å følge opp de

politiske endringene. Videre forskning bør undersøke om disse utfordringene er konsistente over tid. Nasjonale helsemyndigheter bør etablere nasjonale kvalitetsindikatorer og vurdere strategier for å støtte implementeringsprosessen. Bruk av implementeringsteori og forbedringsstrategier kan fremme full implementering av loven og retningslinjene, og bidra til at syke foreldre og deres barn blir identifisert og får tilgang til informasjon, støtte og nødvendig hjelp.

List of Papers

The current thesis is based on the following three studies:

Paper 1

Skogøy BE, Sørgaard K, Maybery D, Ruud T, Stavnes K, Kufås E, Peck, GC, Thorsen, E, Lindstrøm, JC & Ogden, T. Hospitals implementing changes in law to protect children of ill parents: a cross-sectional study. BMC Health Services Research. 2018;18(1):609.

Paper 2

Skogøy BE, Maybery D, Ruud T, Sørgaard K, Peck GC, Kufås E, Stavnes K, Thorsen E, & Ogden T. Differences in implementation of family focused practice in hospitals: a cross-sectional study. International Journal of Mental Health Systems 2018;12(1):77.

Paper 3

Skogøy BE, Ogden T, Weimand B, Ruud T, Sørgaard K & Maybery D. Predictors of family focused practice: organisation, profession, or the role as child responsible personnel? (Submitted, currently in review).

Tables and figures

1 Introduction

1.1 Hospitals implementing changes in law to support children of ill parents

Children born to parents with serious forms of illness have shown to be vulnerable to developing a wide variety of psychosocial problems themselves. Due to their illness, these parents may lack material, economic or psychological resources, as well as the energy to provide their children with adequate care, support and stimulation (1-3). However, the research literature strongly indicates that preventive interventions may protect against well-documented trans-generational risk factors and may strengthen the children's resilience by promoting protective factors (4-6). There is considerable support for the hypothesis that change in hospital practice may lead to change in family interactions to the children's benefit (4, 7, 8).

Successful preventive measures include programmes to support children and families where parents are suffering from mental illness (9-12), substance abuse problems (6, 13) or physical illness (5, 14, 15).

The increased vulnerability of the children may be caused by the interaction between genetic and environmental factors such as poor family communication, the lack of help and support from health and welfare services, insufficient parental care and stimulation, and unstable living conditions (1, 16).

Norway is one of the first countries to require all health professionals to play a part in the prevention efforts of children of parents with various illnesses (mental illness, substance abuse problems, or severe physical illness or injury) in order to mitigate their increased risk of psychosocial problems (17). In 2010, a law was passed that required all health professionals

to 'help to address information, follow-up and other needs that minors may have in relation to their parent's mental illness, substance abuse or serious physical illness, or injury' (My translation) (18, 19). According to the new legislation, all health institutions shall have child responsible personnel (CRP) to promote and coordinate the support provided by health professionals to patients in their parental role and to their children. Health professionals are obliged to:

> a) register dependent children in the patient's health record, b) have conversations with the parent about children's need for information and support, c) offer help in family information sharing and conversations with children, d) ensure that children can visit parents at the hospital, e) assess children's and the family's needs, and f) gain parents' consent to cooperate with other services in establishing necessary support (17:2).

These changes may prevent and reduce the children's psychosocial problems, reduce their feelings of guilt, prevent them from being overinvolved in the parent's illness, and improve their daily functioning (4-6, 14).

This thesis examined the extent to which the legislation had been implemented as intended in Norwegian hospitals, using Fixsen and colleagues' (20, 21) Active Implementation Framework. The requirements made by the law are summarized as Family Focused and Family Support Practice and an assessment was conducted to study the extent to which the different hospitals and professions had implemented this kind of practice (22).

1.2 Philosophical and theoretical frameworks

1.2.1 Implementations research, choice of methods and measures

Health promotion and prevention efforts are targeted group-oriented activities, which serve to prevent the emergence and development of diseases, psychosocial problems or accidents, with the purpose of promoting public health (23-25). Promoting evidence-based prevention entails making a deliberate, systematic and explicit application of the best knowledge of methods that work for whom, under which circumstances and with what kind of resources (23). We can distinguish between three types of evidence: 1) evidence on the cause and extent of disease, 2) evidence of the effects of prevention efforts, and 3) evidence on the best possible organization and implementation of our efforts (23). Innovation in healthcare can be defined as 'a novel idea or set of behaviours, routines, and/or ways of working that involve a change in practice within a healthcare setting' (26:3), (27, 28).

In addition to the decision to implement a new practice, several factors set the framework for the implementation process: the political climate, the legal background, and economic factors. Other factors include how practitioners acquire knowledge in general and how they acquire knowledge of evidence-based methods. Various factors are relevant to analyse how an organization implements a specific measure or method: characteristics of the intervention, organizational factors, front staff, the management, the target audience for the project (users), documentation, and evaluation (23). The implementation processes are closely connected to the context in which they take place, but similar characteristics and concerns have been identified across different disciplines.

Implementation is linked to two different research traditions (29): a policy implementation research tradition, which is concerned with 'how government puts policies into effect' (30), and a health science tradition 'implementation science' that examines how

evidence-based interventions and programs are spread and implemented (31). This thesis is linked to the health science tradition. In a comparison of the two traditions, Nilsen (29) highlights the importance of research into implementation of the 'Big P' policies in the form of formal laws, rules, and regulations, in addition to studying the 'small p' healthcare policies such as guidelines and management decisions that can influence the use of research in clinical practice.

Many common issues are noted in policy implementation research and implementation science, but implementation science could also learn from policy implementation research (29). Greater focus on the influence of the implementation context could be valuable, in addition to exploring the values and norms of the implementers (the healthcare practitioners) on implementation processes (29). Implementation science could also strengthen the focus on patient outcomes, rather than focusing primarily on output, i.e., changes in healthcare practitioners (29).

1.2.2 Evidence-based practice

The term evidence-based medicine (EBM) was first used in the scientific literature by Guyatt in 1991, and it has been widely adopted by professionals and funding agencies (32). Sackett (33:71) defines evidence-based medicine as 'the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients. The practice of evidence-based medicine means integrating individual clinical expertise with the best available external clinical evidence from systematic research'. The definition was expanded by Muir Gray in 1996 to include the patient's perspective: '…evidence-based clinical practice is an approach to decision making in which the clinician uses the best scientific evidence available, in consultation with the patient, to decide upon the option which suits the patient best.' (34:1).

Evidence-based medicine has been criticized for its shifting definition of evidence and that it is based on a narrow concept of evidence, where the randomized controlled trial (RCT) is thought to be *the* method for any kind of investigation (35). Others criticize that the empirical observations by EBM are made primarily in high quality medical centres using special treatment protocols, not in the real world that patients or doctors would recognize, and that there is an inferential leap from statistical findings to the care of the patient (36). They also may underestimate clinical complexity and suppose that different patients have similar problems (36-38), and that implementation of evidence-based guidelines can also lead to adverse outcomes and high costs (36).

In response to the criticism, Djulbegovic (32:160-161) states that 'Evidence' in EBM is used in three different ways: 1) 'Rational thinkers respect their evidence' – evidence is what colleagues agree upon to be evidence, 2) 'Evidence as a guide to truth' – it enhances truthfulness of a particular claim, and 3) 'A neutral arbiter among competing views'. Greenhalg (39:371) raises a further issue and criticizes 'the assumption that by summarising the findings around tightly focused questions we will build a meaningful knowledge base'. This narrow focus cannot solve the complex and multifaceted health challenges and offers little help to politicians and health administrators for the broader decisions. 'The troubling aspect of this enterprise is not the few narrow questions that the reviews answer but the many broad ones they leave unanswered' (39:371).

Despite criticism, evidence-based practice is widely adopted. In Norway it is known as 'kunnskapsbasert praksis' (KBP), and education-projects spread the approach in different areas such as medicine, nursing, social work and education (40).

1.2.3 Implementation theories, models and frameworks

Since the evidence-based program movement started in the 1990s, strong concerns have been raised about the 'science to service gap', with patients receiving health services that are not based on the latest research evidence (21, 41, 42). Increasing efforts attempt to strengthen the focus on implementation research, defined as 'the scientific study of methods to promote the systematic uptake of research findings and other evidence-based practices into routine practice, and, hence, to improve the quality and effectiveness of health services and care' (43:1).

Numerous theories, models and frameworks are used in implementation science, and they attempt to explain different aspects of the implementation process. Nilsen (44) divides them into five categories: 1) process models that specify stages to guide the implementation process, 2) determinant frameworks that examine barriers and enablers to understand influences on implementation outcomes, 3) classic theories originated from psychology, sociology or organizational theory, which can help explain decision making, social networks and organizational change, 4) implementation theories such as Implementation Climate and Organizational Readiness, developed by researchers to explain aspects of implementation, and 5) evaluation frameworks that specify aspects that could be evaluated to determine implementation.

This thesis draws upon several types of theories, such as the classic theories of diffusion (27) and the theory of Organizational Readiness (45). However, the main framework used in this thesis is the Active Implementation Framework (AIF) (20, 46), which is classified as a determinant framework (44). This framework has been developed as a guide for the implementation of parenting interventions in early care and education settings (47), and it was suitable as it could be used to understand barriers and enablers that influence outcomes of the implementation of the new family focused legislation.

1.2.4 Awareness and readiness to change

Conceptually, the prerequisites of awareness and readiness are required by an organization to adopt a new practice or program (48). The probability that an organization will adopt a new practice is influenced by the awareness of a problem and the readiness to change. Additionally, it describes the demands and support from external stakeholders based on the awareness. Organizational readiness is important for the successful implementation of new policies, practices and programs, and it can be defined as 'a shared psychological state in which organizational members feel committed to implementing an organizational change and confident in their collective abilities to do so' (45:6). Leaders play an important role in creating organizational readiness and developing strategies to support the implementation of new practices (17, 45). Transformational leadership, with leaders who can inspire and motivate employees, has been found to predict the implementation of innovative practices (49), and is associated with a better innovative climate and more positive staff attitudes to adopt evidence-based practices (50). If an organization is not ready, an important function for an implementation team is to help create readiness (51).

1.2.5 Top-down and bottom-up processes

New interventions can be implemented *'top down'* from government or program developers or *'bottom up'* from individuals and local stakeholders (52). It can include evidence-based tool kits, provider support, practice guidelines, regulatory incentives, system and organizational interventions and quality improvement strategies (53). A top-down strategy might be more cost-effective; however, it can fail to address local needs and therefore be considered a threat to professional autonomy (41). A bottom-up strategy might increase commitment among practitioners, but interventions can be delivered in different ways, and they might not be used as intended (48). Successful implementation is best achieved in the

presence of a good balance between top-down and bottom-up strategies (48, 54), with both

top-down leadership and organization support to facilitate bottom-up practice change (52).

1.2.6 Inner and outer context

Both the outer and the inner context can affect implementation of evidence-based

interventions (55, 56). The 'outer context' includes factors such as the socio-political context

(e.g. policies and legislation), funding, client advocacy and inter-organizational networks

(55). The 'inner context' includes organizational and individual adopter characteristics (55).

A review of 73 articles from 44 studies of dissemination and implementation of EBPs

in child and adolescent mental health highlights the importance of the outer and inner

contextual factors in all phases of the implementation process (57). Important outer contextual

factors included the state-level leadership from policy makers, the quality of inter-

organizational networks, and implementation materials from nationally recognized sources

(57). Important inner contextual factors included the perceived fit of the intervention with the

organization, appropriate training, adequate resources (personnel and funding), and the use of

data for decision making, leadership, and organizational culture and climate (57). Of the many

inner context factors examined in these studies, fidelity monitoring and supervision

demonstrated the strongest empirical evidence (57).

1.2.7 Common challenges to successful implementation

Theory is needed to guide implementation research, but in the case of the

implementation theory models, it can be difficult to select which to rely on. Several attempts

have been made to synthesise different models and frameworks.

Meyers, Durlak, and Wandersman (58) provided a literature review of 25

implementation frameworks and developed the Quality Implementation Framework (QIF).

The review suggested 14 dimensions that were common to many of the frameworks. These

dimensions were grouped into six areas: (1) strategies to assess needs, fit, readiness, and resources, (2) possibility for adaptation to different settings, (3) capacity-building strategies, e.g. effective staff training, (4) creating a structure for implementation, (5) ongoing implementation support strategies, and (6) improvement strategies/ learning from experience.

Moullin et al. (26) provided a review of implementation frameworks of innovations in healthcare, which resulted in a Generic Implementation Framework (GIF). They suggested that the choice of implementation framework(s) should not be based solely on the type of innovation to be implemented, but also include other aspects such as the context and the end-users, in addition to the depth of analysis of the implementation concepts.

1.2.8 The Active Implementation Framework used in this study

The Active Implementation Framework (AIF) developed by Fixsen et al. (21, 46, 59) is one model that can be used to promote the uptake of programs for families. The framework has been developed as a guide for the implementation of parenting interventions in early care and education settings (47). This framework had been used in Norway to evaluate parenting interventions (60), and the Implementation Components Questionnaire (ICQ) measure has been piloted and validated in Norway (60), which made it useful for the present study.

Compared to diffusion 'let it happen' and dissemination 'help it happen', implementation is characterized by active and planned efforts to mainstream an innovation within an organization – 'make it happen' (28). An important goal is that the innovation reach sustainability, i.e. become part of routine practice.

Implementation can be defined as 'a specified set of activities designed to put into practice an activity or program of known dimensions' (21:5). According to this definition, both the 'activity or program' being implemented and the 'specific set of activities' related to implementation should be described in sufficient detail to be understood (21). There are two

sets of activities (intervention-level activities and implementation-level activities) and two

sets of outcomes (intervention outcomes and implementation outcomes) (21).

A well-defined program is the first step before progressing to large-scale

implementation with good outcomes (54). A usable intervention must have a clear description

of the program, as well as a clear philosophy, values, and principles (21).

The Active Implementation Framework (46, 59) describes four implementation stages.

In the exploration stage, needs are assessed, an intervention model is defined, fit and

feasibility of that intervention are examined, stakeholders become involved, and subsequent

decisions and an implementation teamwork plan is formulated. In the installation stage,

implementation support is developed with competency development and making necessary

organisational changes. In the initial implementation stage, new services for families and

children are delivered. Data are used to drive decision-making alongside a rapid-cycle

problem-solving approach to make improvements. In the full implementation stage, systems

and organisational changes are established, and child and family outcomes are measured (46).

Implementation drivers can be categorized as Competency, Organisation, and

Leadership supports (59). For competency development, new ways of practice may need to be

taught through training and coaching with practitioners who have been specifically selected to

use the innovation. Organisation supports include those practices and support systems that

establish an environment for the use of effective innovations. Having a data system is an

essential component for guiding the process of establishing the innovation and assessing

immediate outcomes. Leadership is a critical driver that can resolve procedural problems

through technical forms of leadership, while adaptive leadership strategies are needed in

complex conditions where there is less certainty for solutions. Finally, performance

assessments are needed to secure both the implementation outcomes and the intervention

outcomes. These drivers are integrated and can collectively be used to inform staff behaviour and organisational culture, as shown in the figure below (Figure 1) (20). Specialised implementation teams are needed to oversee the implementation process, assess whether the intervention is being used as planned, establish feedback loops, and promote long-term sustainability (20, 46).

Figure 1 Implementation Drivers, taken with permission from Fixsen & Blase 2008 (22).

1.3 Parental illness, risk and prevention

1.3.1 Risk

Parental health and well-being are vital in the family context. Hence, physical and mental illnesses and substance abuse problems in a parent might impact negatively on the children in different ways. Family context is a predictor of developing mental health problems (12) with genetic and environmental risks to children being associated with parental mental illness and substance abuse problems (1, 61-63). Parental physical illness also significantly affects children's daily lives and psychosocial adjustment (2, 64, 65). Poorer school performance and increased risk of substance abuse, mental ill-health, and criminality have been identified in one-third of children whose parents were diagnosed with cancer that led to death or treatment in hospital for more than 30 days (1). The remaining two-thirds of children demonstrated no long-term consequences, except for an increased risk of developing cancer themselves (1).

The problem also has economic implications to society; e.g., a long-term register study showed that 8% of the Swedish children born in 1973-1978 had parents hospitalized with mental illness or addiction to alcohol or drugs in their childhood. In adulthood (1991-2008), these 8 % of children as next of kin accounted for 25% of society's annual costs for mental illness and addiction to alcohol and/or drugs (1). If the prevalence of mental illness were the same for children as next of kin as in the rest of the population, society's costs would substantially decrease (1).

1.3.2 Numbers

Many children are affected by parental illness. The Norwegian Institute of Public Health has estimated that 23.1 % of Norwegian children live with one or two parents with severe (10.4%) or moderate (12.7%) mental disorders affecting their daily life, and 2.7 % of

children live with parents that have severe alcohol use disorder (66). In Norway, a study of adult outpatients from 107 mental health outpatient clinics found that 36 % of the patients had children younger than 18 years old (67). A recent systematic review of nine studies showed a parent prevalence among patients in adult psychiatric services to range from 12.2 - 45.0 % (68). Physical illnesses in parents, such as cancer, are estimated to affect 3.1 % of Norwegian children (0-18 years), and 8.4 % of young adults (19–25 years) (69). Internationally, approximately 10 % of children are estimated to have a parent with a chronic medical condition such as cancer or multiple sclerosis (70). It should be noted that estimates of parental illness vary in whether they include severe, moderate, or broader categories of illness.

1.3.3 Psychosocial preventive interventions for families and children

There is increasing evidence of positive effects of family focused interventions when parents are ill. A meta-analysis of 13 individual, group-, and family- interventions for families with parental mental illness found that children's risk of developing the same illness as their parents was reduced by 40%. These interventions increase parenting knowledge and skills and strengthen resilience factors among adolescents (4). Two of these interventions are Let's Talk (71), and Family Focused Intervention (72), interventions that are the bases of the Effective Family program in Finland and have clearly inspired the other Nordic countries.

A recent RCT study of a family-focused strength oriented rehabilitation model within mental health in the Netherlands found a positive effect on parenting skills (73) and parenting quality (74) by focusing on strengthening positive parenting, in addition to providing community and network support. The preventive basic care management was also more cost effective than usual care (74).

Similarly, in physical health, a systematic review (5) of 19 psychosocial interventions for families with parental cancer found most interventions to be helpful. The interventions were found to support more open communication in the families and improvements in parent's and children's quality of life and mental health or distress (5). An RCT study of a psycho-educational intervention (Cancer- PEPSONE) found that the spouse/ well parent was largely distressed, and that strengthening families and their social networks could be a buffer to reduced quality of life (75).

1.4 Awareness of parental illness effect on children

1.4.1 Awareness leading up to the Norwegian policy changes

From the early 1990s, health professionals and organisations began developing projects and new practices to support children of ill parents. From 1996-97, a new national plan for mental health was developed, focusing on openness and entirety (76), with a strong emphasis on fighting stigma. Government reports advised the health services to establish routines to identify children's needs for information and support when a parent had a mental illness (76) and when a parent had a terminal physical illness (77).

From 1998-2004, the Norwegian Board of Health Supervision (Statens Helsetilsyn) financed a national education program that focused on children of parents with mental illness, which was developed by the non-governmental organization, Adults for Children (Voksne for Barn (VFB). This led to new projects and practice change, but an evaluation found that practice change in the mental health services was still moderate, and there was a need to strengthen children of ill parents' position (78). Other reports also highlighted the need for prevention when parents had substance abuse problems (79). There was also a more general focus on prevention for preschool children (80), which also included children with ill parents.

As part of a Norwegian Action Plan against Poverty and Inequality in Health (2006-7) (81), the Ministry of Health and Care Services (Helse- og omsorgsdepartementet) and the Ministry of Children and Equality (Barne- og likestillingsdepartementet) provided funding for over a hundred projects to support children of ill parents (82). A national competency network, Children's Best Interests (Barns Beste), was established to collect and systematize the support for children of ill parents. Overall, there was a 20 years' awareness process in Norway that led to changes in policy and legislation to support children as next of kin from 2010 (83). In 2012, a report summarized the experiences from the many projects (82). The funding stream was changed, with the Norwegian Research Council funding four research projects, which included the CHIP-study (84).
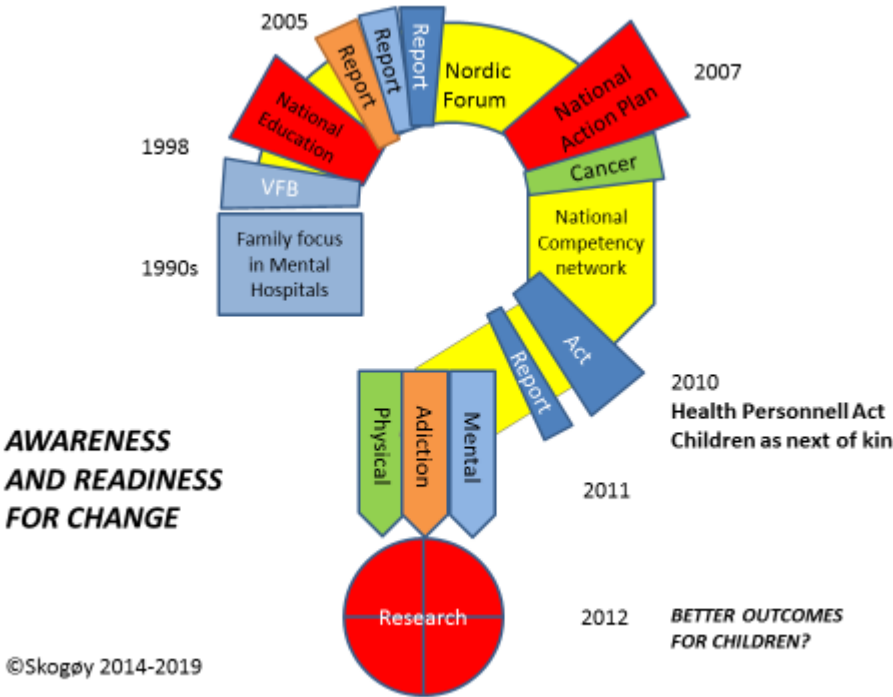
Figure 2 Awareness leading up to the policy changes, taken from Skogøy 2015, in (84).

1.4.2 My journey

I have also been part of this Norwegian journey. My awareness and interest in this topic started in the early 90s while working as a social worker and family therapist in a mental hospital. Later, I worked for VFB "Adults for Children" with a large national educational program about parental mental illness, which attempted to help the workforce become more family focused. My participation in the Nordic Forum led by Tytti Solantaus was an inspiration for further work. I summarized my clinical experiences in 1996, interviewed mentally ill mothers and health professionals in 2000-2001 (85), and wrote my master thesis about a support group for parents and children in 2009 (85). From 2009 to 2011, I was a project manager working to implement the legal changes at four hospitals in Northern Norway (87). My experience from two large workforce training projects, and the challenges of trying to implement the legal changes, encouraged me to learn more about implementation processes. I therefore participated in the development of the CHIP-study, of which my thesis is a part.

1.4.3 Policy and legislation

A wide international variation exists in policy, legislation, and practices for children affected by parental illness, ranging from stigma, lack of provision, and loss of parental rights in some countries, to regional or nationwide child- and family support policy and legislation in others (17, 83, 88-90). Finland (8), Sweden (1, 91), and Norway (18) have similar types of legislation and are the only countries that include minor children (0-18 yrs.) of parents with all types of illnesses, including mental illness, physical illness, and substance abuse problems.

The three Nordic countries have introduced similar changes to the law but are at different stages of development. In Finland, legislation from the 1980s made health services responsible for the children's needs for care and support when a parent receives mental health and/or alcohol and drug abuse services, with the new Child Welfare Act 2007 focusing on

prevention in these families (88). The Effective Family Program was established in 2001(8, 92). The program consists of several types of interventions; a) Let's Talk, which is a short child-focused discussion with the patient and possibly his/her partner to assess the child's situation, b) The preventive Family intervention by Beardslee, later named Family Talk (93, 94), c) The Effective Family Network Meeting by Vaisanen and Niemala, and d) peer groups for children and families (95). The program was funded by the National Research and Development Centre for Welfare and Health (STAKES), The Finnish Ministry of Social Affairs and Health, and the Finnish Academy, and it was a nation-wide research, development, and implementation programme, first focusing on the psychiatric services and later also on somatic services (71).

In 2010, Sweden made similar changes to the legislation as Norway did (96, 97). The Department of Social Care (Socialstyrelsen) mandated the National Competence Network for next of kin (NKA) and Linnè University to secure the implementation of the legislation (91). Four regions were chosen for the first development and implementation process. Some of the regions have combined the implementation of the legislation with the follow-up on the UN-convention on Children's Rights for Information, Participation and Protection (98), as these are perspectives common to the needs for children with ill parents. Prior to the new legislation, the Swedish government initiated a national training project from 2008-2010, in which all regions were offered training in Beardslee`s Family Talk intervention (96). Several register studies, reviews, and health economic studies have been conducted (1, 96). These studies add more knowledge regarding the elevated risk for these children to have psychosocial problems and lower school performance, and in adulthood needing substantially more health services than others (1).

Other countries have state-wide programs, recommendations, and guidelines with many of the same elements as the Norwegian legislation. In Denmark, a network for

professionals working with parental mental illness has existed since 1995, and National Authorities have funded a large range of projects over the years (99). One of these is a cooperation model to support children of parents with mental illness and addiction (Bedre Tværfaglig Indsats) (100). Danish law (Sundhetsloven 2010) regulates health personnel's duties, with additional recommendations for health personnel (101). Though not stated in law, they recommend that health personnel should identify and document children of ill parents and secure their needs. The recommendations are similar to the Swedish and Norwegian law, and they state that the Norwegian regulations have inspired their recommendations (101:2).

In the Netherlands, a development process has been in place since the late 1980s to support families affected by parental mental illness, with prevention teams from all over the Netherland supported by a network of research centres and national prevention research and development (3, 61). Some of these interventions have also been adapted and used in Norway (102).

In the state of Victoria, Australia, the Families Affected by Mental Illness (FaPMI) strategy, launched in 2007, is a state-wide initiative to support parents with a mental illness and their dependent children (90). Practice standards have been developed that suggest that family focused guidelines in mental health should include a) identification of parenting status and dependent children, b) assessment of needs and well-being of parents, other family members and children, and c) provide support and referrals to address these needs (103).

1.4.4 The Norwegian legislation and guidelines

From 2010, the duty of healthcare professionals to support minors as next of kin was enshrined in the Norwegian Health personnel Act § 10 a (18), with siblings included from 2018 (104). From 2018, a new paragraph was added, § 10 b, also with similar duties to contribute to safeguarding minors who have survived the death of a parent or sibling (105,

106). There is no official English translation of these regulations. In the legislation, two new concepts were introduced: 'barn som pårørende' (children as next of kin) and 'barneansvarlig personell' (child responsible personnel). As these concepts are closely connected to the Norwegian legislation, they are not easily translated. Other possible translations may have been 'children with ill parents or children as relatives' and 'safeguarding personnel or child liaison personnel'. We have chosen to use 'children as next of kin' and 'child responsible personnel'.

The translation below was prepared for use in this thesis with assistance of a native English-speaking person.

> The Health Personnel Act § 10 a. *'Healthcare professionals' duties to contribute to safeguarding minor children who are next of kin (barn som pårørende) of parents or siblings.*
> Healthcare professionals are required help to address information, follow up and other needs that minors may have in relation to their parent's or sibling's mental illness, substance abuse or serious physical illness or injury.
>
> Healthcare professionals who provide health care to a patient as defined in the first paragraph shall seek to clarify whether that patient has children or siblings who are minors, and to establish any information or follow-up needs such children may have.
>
> When addressing needs of the patient's minor children, the health care professional should, among other things:
>
> a) ask the patient about the child's information or follow-up needs and provide information and guidance on relevant measures. Within the framework of the

duty of confidentiality, the health personnel shall also offer the child and others who care for the child the opportunity to participate in such a conversation.

b) seek consent to a form of follow-up that the healthcare professional considers appropriate.

c) contribute to providing the child and persons who care for the child, in accordance with the rules of duty of confidentiality, with information on the patient's disease state, treatment, and potential for normal social interaction. The information must be provided in a form adapted to the recipient's individual requirements.

When it is necessary to meet the need of the patient's minor siblings, the health personnel shall, among other things, provide information and guidance on relevant services. As far as possible, this should be in consultation with parents or others who care for the siblings. The third paragraph, letter b and c, applies correspondingly.

The Ministry may in regulations issue further provisions on the content of the health personnel's obligations under this provision.

Added by law June 19, 2009 no. 70 (cf. January 1, 2010 according to Dec. 11, 2009 no. 1501), amended by Act June 16, 2017 no. 53 (cf. January 1, 2018 according to Dec. 8 Dec 2017 No. 1951).

The Health Personnel Act §25, 3rd paragraph, *Information to cooperation personnel*, has also been changed (107): 'Unless the patient opposes it, confidential information may be given to cooperating personnel when this is necessary to meet the needs of the patient's children or siblings who are minors, cf. § 10 a.'

The Specialized Health Services Act § 3-7a, *Child responsible personnel* (108), with changes in 2018, regulate health institutions duties to have 'child responsible personnel':

Health institutions that are covered by this Act shall, to the degree necessary, have personnel responsible for the safeguarding of children. Child responsible personnel are responsible for promoting and coordinating healthcare professionals' follow-up of minors who are the children or siblings of patients who are mentally ill, are substance dependent, who are seriously physically ill or injured, or who are the surviving children or siblings of such patients after their death.

The changes in the Norwegian legislation are linked to the follow-up on the UN convention on the rights of the child (18, 98, 109, 110). The UN-convention, article 3.1, states that a primary concern underpinning all actions should be the best interests of the child (98). Children have the right to protection and care (Article 3.2), and parents should be secured appropriate assistance in their child-rearing (Article 18). Children have the right to form and express their views in matters affecting them, and children should also have the opportunity to be heard (Article 12). Health professionals' legislative obligations to support ill parents in their parental role, and to safeguard information, support, and protection to their children can be understood as a follow up on the intentions of the UN convention on the rights of the child (18, 109).

In 2010, a circular (rundskriv) IS-5/2010 from The Directorate of Health gave further instructions regarding the interpretation of the new legislation regarding children as next of kin with a requirement to develop guidelines (retningslinjer) and procedures (rutiner) to follow up on the law requirements (19). All five hospitals in the CHIP study had developed

such clinical guidelines and procedures that varied slightly, an example of which can be found in a report from Northern Norway in 2012 (87).

A recommendation (veileder) from The Directorate of Health also highlighted the importance of early intervention, especially for children of parents with substance abuse problems (19). The importance of collaborating with, and referring children to, the Child Protection Services were stated, and guidance was provided on how to take action on concerns for children's situations (19).

In 2015, The Directorate of Health funded a report from the CHIP study about children as next of kin, with recommendations based on the preliminary analyses from the CHIP study (84).

In 2017, the Directorate of Health launched new national guidelines (retningslinjer) on next of kin (children and adults) in the health- and care services (111). These national guidelines were developed in collaboration with representatives from all relevant user- and knowledge organizations in Norway. A member from the CHIP study, Bente Weimand, co-led development of the guidelines, and focused on the particular responsibility of children as next of kin, and I participated in the associated resource group.

The national guidelines state the importance to:

- Declare whether the patient has children or siblings under the age of 18
- Clarify the care situation for children as next of kin
- Clarify the need for information and follow-up in children as next of kin
- Guide parents on support for children as next of kin
- Guide parents to talk to children as next of kin about illness and treatment
- Talk to the family about everyday life in the kindergarten and school for children as next of kin
- Talk to the family about leisure activities and social networks for children as next of kin

- Give children as next of kin the opportunity to visit parents at the institution
- Talk to parents about safeguarding children who are next of kin of ill siblings

In 2017, the National Competency Network, Barns Beste – in collaboration with partners in the network – launched refinements of the earlier developed clinical guidelines/ procedures at the health institution, based on updated knowledge (112). Most health institutions have updated their clinical guidelines/procedures in accordance with these refinements.

This thesis examined to what extent the legislation had been implemented as intended in Norwegian hospitals after four years (2013-2014), using Fixsen and colleagues' (20, 21) Active Implementation Framework. The requirements made by the law were summarized as Family Focused Practice and an assessment was conducted to study the extent to which the different hospitals and professions had implemented this kind of practice (22).

Based on the regulations (18) and the circular from 2010 (19), we summarized health personnel's duties in the following manner: Health professionals are required to a) register dependent children in the patient's health record, b) have conversations with the parent about children's need for information and support, c) offer help to family with information sharing and conversations with children, d) ensure that children can visit parents at the hospital, e) assess children's and family's needs, and (f) gain parents' consent to cooperate with other services in establishing necessary support (113:2).

Intervention outcomes can be measured as health professionals' new practice behaviour; whether they register children in parents' health records, have conversations with parents on children's needs, have child conversations, parents refuse child conversations, families receive support, or children and families are referred to other services.

1.4.5 Implementation of guidelines

Implementation of clinical guidelines faces barriers at individual practitioner level, within the social context, and in the organizational and environmental context (114-116). It is recommended to make an assessment of local barriers (117) and to tailor implementation strategies to different stakeholder groups (115, 118, 119).

The Norwegian Knowledge centre for Health Services has made a systematic review of 19 systematic reviews from 2005-2014 on the effectiveness of guideline implementation interventions (120). They found that the impact of an implementation strategy may vary, depending on characteristics of the strategy, the targeted health problem, and the professionals. Guideline implementation strategies, such as clinical decision support systems, educational outreach visits, audit and feedback, educational meetings, and tailored interventions, were found to have an effect on clinical practice, but the effect sizes were usually small to moderate.

It was uncertain whether strategies such as internet-based learning, inter-professional education, printing education materials, economic incentives, inter-professional collaboration, checklists, strategies to change organizational culture, and public release of performance data improved adherence to clinical practice guidelines (120).

1.4.6 Family focused practice, a framework used in this study

The Norwegian regulations are consistent with international recommendations to include family focused, family centred, family based, family oriented, family inclusive or child-centred practices to support the children of mentally ill parents (7, 12, 72, 83, 93, 103, 121-124), parents with substance abuse (6, 13, 125), or physical illness (5, 14, 15, 126). When we use the term 'family', it may refer to the family of origin (an individual's relationship with his or her parents) or the family of procreation (an individual's relationship with his or her

spouse/partner and children) (127). This thesis focuses on the family of procreation: the patient with an illness, the other parent /partner, and the patient's children.

Maybery and Reupert (128) explored family focused practice in a literature review and developed a measure to study barriers and enablers of the mental health workforce's ability in family focused practice (129, 130). The theoretical perspective on family focused workforce practices (130) has been informed by the literature on family-centred practice, with the origin based on Dunst (131). In contrast to professional-centric practice, health services should provide families with opportunities to be actively involved in decisions and choices to achieve their goals (131). Family focused practice describes a continuum of practices to support the whole family unit, both the parents and the children (110).

A systematic review of family focused practice in mental health care (including search words such as family centred, family oriented, and child-centred), found that common elements were practices that are thought to support the whole family unit, both the parents with an illness and the children (121). The core elements included: liaison between families and services, assessment of family members, family care planning, psycho-education, instrumental, emotional and social support, goal-setting, and a coordinated system of care between families and services (121).

Similarly, a systematic review in physical health found that when parents have cancer, there is a need to focus on the whole family: the parent with an illness, the other parent, and the children (5). Core elements were the need for psycho-education, empowering parents to communicate with children on their illness, children wanting their parents to engage in open and honest discussions, and the need for health professionals to facilitate family communication. Systematic reviews on neurological illness also state the importance to provide information to children (132) and timely family-based interventions (133). Core

elements include: support to communicate more effectively, manage feelings, and find a good balance between caring for the ill family member and self-care (133). Disclosure of genetic risk information needs an open communication style to facilitate more open and honest discussions between parents and children (134). Challenges in discussing the parent's and children's needs were raised, and a potential conflict was identified in terms of the needs and rights of the parent who needed long-term high quality home care, with personal assistance seven days a week, and the child's rights to health, well-being, and privacy (64).

A systematic review of substance abuse treatment identified 40 studies of 26 programs directed to children alone, the parent or both parents, or parents and children together, of which two were considered to be high quality studies (6). One of these studied recovery coaches, a long-term, intensive type of case management for substance-involved mothers in child welfare (6, 135).

The other well-researched programme was 'Strengthening Families (SFP)', which focused on both parents and children, with 7-14 sessions of 2 ½ hour, developed for children in different age groups (136, 137). The psychological theories underlying SFP are cognitive-behavioural psychology, social learning, and/or family systems theory (138). A key ingredient to the success of SFP is that it involves the whole family (parents and children and parents and children together) in interactive change processes, rather than involving them in didactic educational lessons (136).

A third, medium quality study described the 'Stress Management and Alcohol Awareness Program'(SMAAP) (139) where children had developed greater knowledge on alcohol consequences and improved their emotional coping strategies. One challenge is that most programs are delivered for a shorter period to the child, whereas parents recovering from substance abuse problems may need long-term treatment (6). As there may be significant

problems to grow up in these families (1, 140, 141), short-term strategies to support the children may not be sufficient (6, 140).

Many of the models described have common elements to the family psycho-education approach: a) information about the addiction or illness, b) coping skill development, and c) support from peers and professionals (142).

In this thesis, family focused practice (110) represents the continuum of practices needed to support the whole family unit, both the parent with an illness and the children, as required by the new legislation (18) and circular (rundskriv) (19) regarding children as next of kin. These regulations require health professionals to support children of parents with all types of serious illnesses or injury (mental, physical, or substance abuse).

Pinkerton and colleagues (213:22) define family support as '…both a style of work and a set of activities which reinforce positive informal social networks through integrated programmes. These programmes combine statutory, voluntary and community and private services and are generally provided to families in their own homes and communities. The primary focus is on early intervention aiming to promote and protect the health, well-being and rights of all children, young people and their families, paying particular attention to those who are vulnerable or at risk.' 'Family support' as part of family- and child- community based services includes pre-school interventions, school-based programmes, parenting programmes and targeted services for families with special needs (e.g. family support groups and peer support groups) (215).

'Family and parenting support' is a subscale of the family focused practice measure that was employed in the research underpinning this thesis. The manual for the family focused mental health practice questionnaire (214:4) briefly defines the meaning of the 'family and parenting support' subscale as 'Providing resources and referral information to

consumers and their families' and the subscale includes five item content to include items such as 'making a family meetings (not therapy)', 'providing written material…about parenting', 'education sessions ' and 'providing referral information' to the parent.

Studies clearly show the need for family support from both informal social networks and family- and child- community based services (88, 169) with a recent comprehensive study of 23167 outpatients across 107 Mental Health Services in Norway finding that of the parents with minor children (69), 31% had children who had been provided with referrals, 3% needed referrals and for 8 % it was unclear whether they needed referrals (69). The most frequent referrals provided were to the child protection agencies (45%), child- and adolescent mental health services (39%) and educational-psychological services/school services (35%), and others (20%) (69). In addition, the CHIP- study found that some families may need a family support plan to coordinate help from the different services (88).

1.4.7 Change agents to promote family focused practice

Change agents (27) or champions (143) have been found to play an important role in innovative practice, with an internal organizational champion increasing the likelihood that a new practice will be implemented (55). Rogers (143:992) define a champion as 'an individual who devotes his/her personal influence to encourage adoption of an innovation'. Fixsen (21:14) define a purveyor (also called change agent, facilitator or implementation team) (52) as 'an individual or group of individuals representing a program or practice who actively work to implement a practice or program with fidelity and good effect'. In Norway, the Child Responsible Personnel (CRP) may be such champions and change agents. As part of the changes in legislation in Norway, hospitals are obligated to have CRP to promote and coordinate support provided by health professionals to parents in their parental role and their children (18). Other countries also use change agents to implement changes in legislation and to encourage family focused practice.

In Finland, a "train the trainers model" was used to implement the Effective Family Program, thus making clinicians 'early adopters' (143) and raising personal interest in expanding the work (92). Like Norway, Sweden appointed children's representatives/spokespersons (Barnrättsombud/ barnombud) at hospitals to support the development and implementation of legal changes (144). Since 2004, Denmark has had key persons (nøglepersoner) in some hospitals to support children affected by parental illness (99). In Victoria, Australia, the FaPMI strategy includes FaPMI coordinators across 11 regions, organizing training and networking to encourage family focused practice (83).

1.4.8 Differences in family focused practice between professions

Despite the need for family focused interventions, it has been shown that different professions provide different levels of family focused practice and have different learning needs (145). In Australia, social workers in adult mental health services have been found to be more confident working with families, parents, and children and provide more family focused practice than do psychiatric nurses. In addition, both social workers and psychologists provided more direct family support and referrals than psychiatric nurses did (146). In Thailand, social workers in mental health services provided significantly more family support and was referring more to other services than psychiatric nurses, and psychologists did. Psychiatrists scored lowest on an awareness of family focused policy and procedures but scored high on family-focused skill and knowledge. Psychiatric nurses scored lowest on almost all aspects of family-focused practice. Participants who had received previous family and child-focused training scored higher than those who did not (147).

In Germany, many physicians treating cancer parents were reluctant to refer families to Children of Ill Parents (COSIP) therapists (148), and physicians concerns about their own resources and patients' well-being were common problems in implementation of preventive mental health services for children of physically ill parents in European countries (149). In

Norway, general practitioners who were positive to support children often forgot to address the children's needs or were afraid of increasing the parent's feeling of guilt and shame (150).

1.4.9 Facilitators and predictors of family focused practice

Organization-related, worker-related, and family-related factors have been associated with the health services' ability to provide family support. Figure 3 illustrates a hierarchy of points of intervention. Organization-related factors, such as mentoring and supervision, are found to be important enablers of family focused practice (22, 128, 151), with co-worker support and time for family work being predictors of health professionals providing family support (22). Location has been identified as a predictor of family support, and the availability of child- and family services in the area predicts referrals (22). Several worker-related predictors of family and parenting support have been identified, with knowledge and skills, further training, and connectedness predicting family support, and skills and knowledge, connectedness, and engagement issues predicting referrals (22).
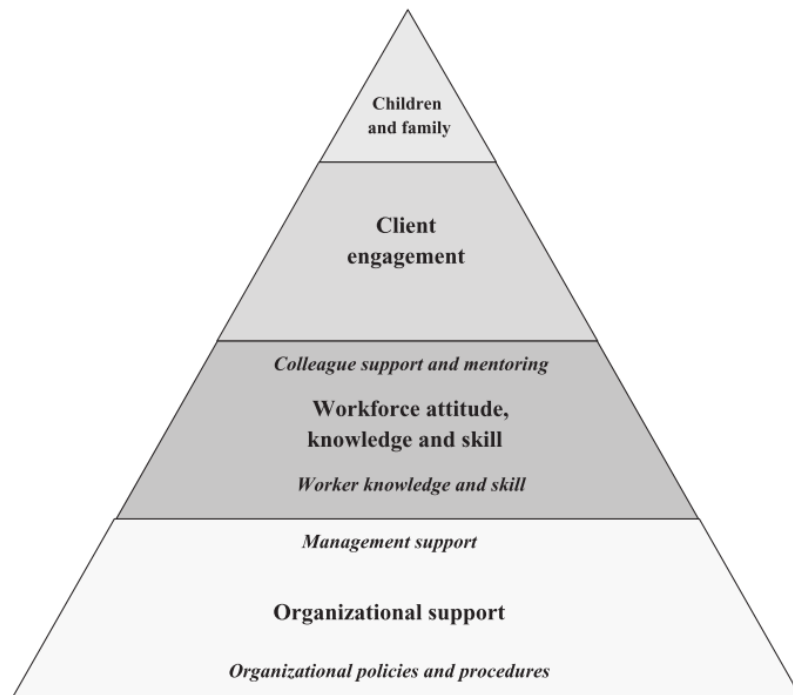
Figure 3 Hierarchy of points of intervention to affect work-force change, taken with permission from Maybery and Reupert 2009 (128).

Well-trained and rurally-located practitioners are found to predict family focused practice (153), as well as knowledge, skills, and confidence (154). Practitioners' gender, age, and length of experience have been found to make an impact; however, the results differ. Some studies have determined that younger health professionals with medium education had more positive attitudes to supporting mentally ill parents in their parental role and supporting their children (154), and inexperienced psychiatric nurses were more likely to support the children of service users (155). Others have found that female, older, married, and experienced mental health nurses engaged themselves more in family focused practice (156), and own parenting experiences was a key predictor of family focused practice (153).

Effective collaboration with clinics and institutions, where services are located, intervention characteristics, and provision of information about support services can facilitate families using psychosocial support services (5). Support as part of routine care and having a contact person in the clinic could facilitate the use of support by patients and families (148,

149, 157). Education on managing parental cancer can improve the healthcare professional's knowledge and confidence to engage in conversations with patients and support family-centred communication (158).

While numerous barriers to family focused practice and the use of psychosocial support have been identified in previous research (5, 22, 110, 128, 151, 154, 156), less is known about factors that facilitate and predict the ability of health professionals to engage in family focused practice, particularly in relation to new policies and guidelines such as those recently introduced in Norway.

1.5 Level of analysis

Managers and health professionals can have different perspectives on the implementation progress and satisfaction with the process, and it is therefore suggested to examine all levels of the implementation system (159). Health professionals might also view successful outcomes differently than patients and children as next of kin. In this thesis, we include mangers/leaders and health professionals from different levels of the organization who treat patients with mental illness, physical illness, and substance abuse problems. The perspectives of patients, partners, and children are included in other parts of the CHIP study (84, 141, 160-165) but are not part of this thesis.

1.6 Summary of the background

In 2010, Norway became one of the first countries to require by law that all health professionals play a part in the prevention of psychosocial problems for children of parents with all kinds of illnesses (mental illness, substance abuse problems, or severe physical illness or injury). This thesis aims to contribute to the understanding of how these policy changes were received by Norwegian hospitals and health professionals, and whether the changes in law were implemented as intended.

Implementation involves a specified set of activities designed to put into practice an activity or program of known dimensions. Both the implementation processes and the activity or program being implemented must be described in enough detail so that independent observers can detect its presence and strength. Successful implementation depends on two types of activities and outcomes – the intervention-level activity and outcomes, and the implementation-level activity and outcomes.

Theory is needed to guide implementation research, and several theoretical models and frameworks endeavour to explain different aspects of the implementation process. The Active Implementation Framework is one such theory, classified as a determinant framework, that is often used to explore barriers and facilitators of implementation in child and family settings and education settings. The implementation process can be described in four stages: exploration, installation, initial implementation, and full implementation. Implementation strategies are methods to structure and understand an implementation process. Organizational drivers, competency drivers, and leadership drivers are essential to implement new practices, and performance assessment is necessary to measure and improve implementation activities and outcomes. There is a lack of knowledge about how these implementation drivers are used in the implementation process, and a lack of evidence regarding the relative importance of the drivers on implementation outcomes.

Children born to parents with serious forms of illness have shown to be vulnerable to developing a wide variety of psychosocial problems themselves, but preventive programs have been shown to decrease this risk. The Norwegian regulations require all health professionals to provide information and support to these families and children. These requirements are consistent with international recommendations to include family focused practices to support the children of parents with mental health illness, substance abuse

problems, or physical illness. Family focused practice can be understood as a continuum of practices that support the whole family unit, both the parents and the children.

More evidence is needed on how different factors contribute to higher levels of family focused practice, and the influence of organization-related and worker-related factors on delivering the new family focused practice.

The research literature strongly indicates that preventive interventions may protect against well-documented trans-generational risk factors and strengthen the resilience of affected children by promoting protective factors. Despite this knowledge, there is a gap between what we know from research and the implementation of preventive efforts on a larger scale.

2 Aims of the Thesis

This thesis aims to examine the perspectives of leaders/managers, child responsible personnel, and other health professionals on the implementation of changes in law to support and protect children of ill parents, and their adherence to the new guidelines for family focused practice.

2.1 The aims of the first study

The overarching aim of this study was to examine to what extent the law was being implemented as intended. The first aim was to analyse and compare differences in implementation of changes in law between Norwegian hospitals. The second aim was to analyse and compare differences between managers/leaders, hospital coordinators, and child responsible personnel. The third aim was to identify predictors of successful implementation.

2.2 The aims of the second study

The first aim was to describe the types and extent of family focused practice across Norway. The second aim was to determine any differences in family focused practices between the five hospitals.

2.3 The aims of the third study

The first aim was to analyse and compare differences in family focused practice between personnel with different professional backgrounds. The second aim was to analyse and compare differences in family focused practice between health professionals appointed to the role of being child responsible and other clinicians. The third aim was to explore predictors of family focused practice.

3 Materials and methods

This chapter presents the project setting, the project design, and the methods used.

3.1 Project setting

This thesis was funded by a research grant from the Northern Norway Regional Health Authority and was part of a large multicentre study, the Children of Ill Parents (CHIP) study that was funded by the Research Council of Norway (ID: 213477) with additional funding from the Norwegian Directorate of Health and the participating partners in the study (84). Akershus University Hospital led the project, and the following partners participated: Nordland Hospital Trust, Stavanger University Hospital, Rogaland Addiction Centre, Sørlandet Hospital Trust, Vestre Viken Hospital Trust, Regional Centre for Child and Adolescent Mental Health, Eastern and Southern Norway, and the National Competency Network, BarnsBeste (Children's Best Interests). The study was initiated by members of Children's Best Interests' research network.

In the CHIP study, parents ($n = 518$) treated at outpatient and inpatient units in the five hospitals answered questions about themselves, one of their children (0-18yrs.), and the help received. In addition, the other parent/ adult ($n = 266$) answered similar questions. Children and adolescents (8-18 years) ($n = 246$) answered questions about their situation and experiences. Health professionals answered questions about their patients and family ($n = 278$) and whether they had a family focused practice ($n = 144$). Teachers ($n = 125$) answered questions about the children's situation in the school/ kindergarten. In addition, managers/ leaders ($n = 52$), child responsible personnel ($n = 136$), and hospital coordinators ($n = 26$) answered questions about implementation of the changes in law. Local research groups, with four PhD-students, and one post-doc have been working with different parts of this study, in

addition to senior researchers, and international collaborating partners. A report with preliminary findings was delivered to the Directorate of Health in 2015 (84).

Norway has a public health system with four regional health authorities (RHA) responsible for the provision of specialist health services in their area. These services are provided through 19 health trusts (HT) and comprise inpatient and outpatient services (17). Most Norwegian hospital-based health services are public, but a few hospitals are owned by private trusts with agreements with the RHA. There are a few privately owned and privately financed hospitals, but these serve a small part of the population.

The five hospitals that were the focus of this exploratory and cross-sectional multicentre study serve 34% of the total Norwegian population of 5.2 million people (17, 84). In an attempt to reach maximum diversity, we included five hospitals of different sizes from three regions across Norway, including both rural and urban areas. The smallest hospital, Nordland Hospital (H1), serves 136 000 inhabitants, and the largest, Akershus University Hospital (H5), serves 493 000 inhabitants. The three remaining hospital serve the following number of inhabitants: Sørlandet Hospital (H2): 290 000, Stavanger University Hospital (H3): 358 000, and Vestre Viken Hospital (H4): 480 000. Hospital 1 is a district hospital providing health services to a large rural area and Hospital 3 and 5 are university hospitals. Additional information was collected from hospital coordinators at 16 other hospitals across Norway, of which two are private hospitals.
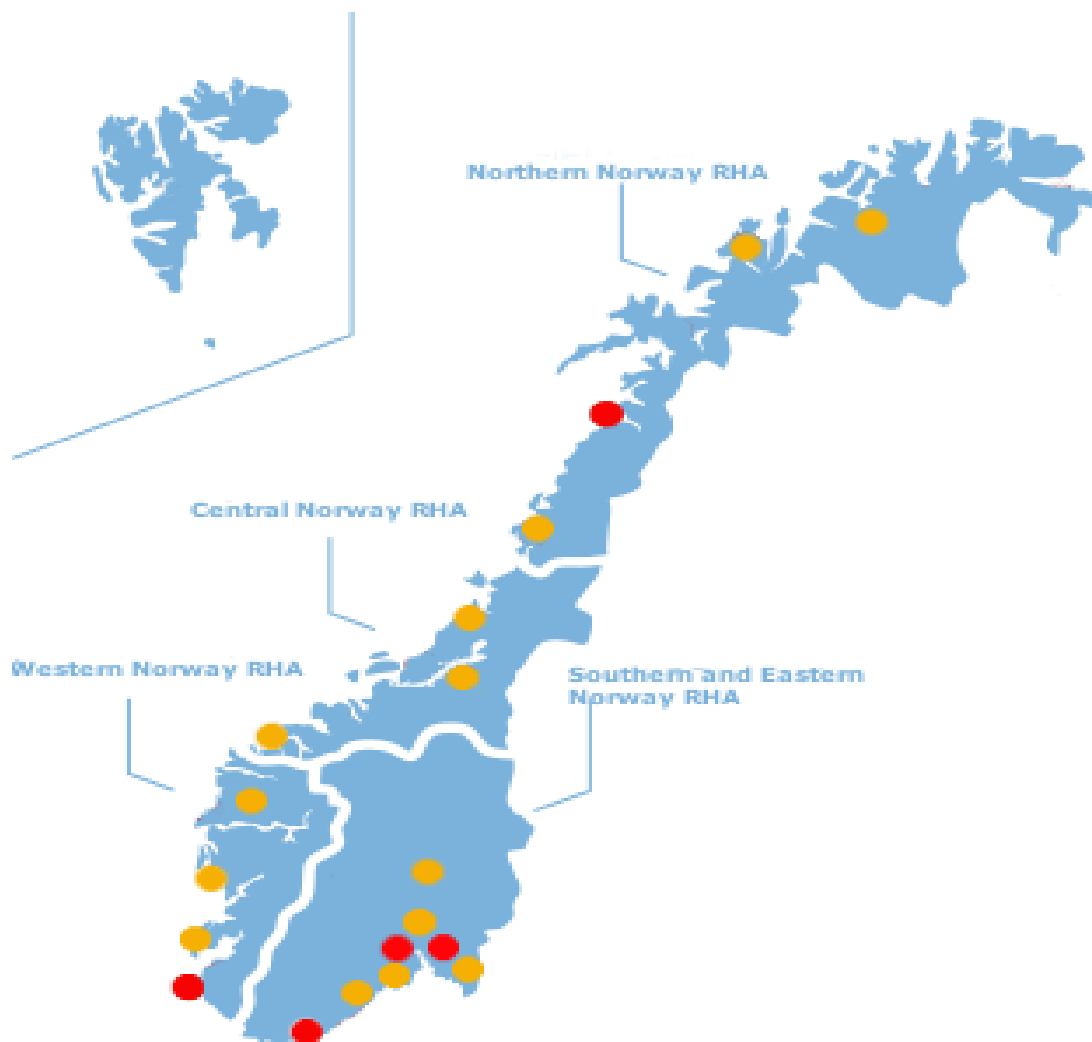
Figure 4 Regional Health Authorities (RHA) and 19 Health Trusts (HT), of them five took part in the CHIP-study, Skogøy 2019.

3.2 Design and procedures

As this thesis is part of a large multi-centre study, the project manager, Professor Torleif

Ruud, made agreements with the management of all five hospitals. Local project groups were

established at the five hospitals, led by a local project coordinator in a 20% position. In

addition to being PhD student, I was also a local project coordinator, and I was responsible for

the data collection at one of these hospitals. The local project groups of experienced health

professionals, master students, and research assistants participated in the recruitment and in conducting the interviews with patients/children. The approximately 50 members of the five local research groups took part in a two-day training seminar before the data collection started.

3.3   Ethical considerations

The project was approved by the Regional Committee for Medical and Research Ethics South-East (REK 2012/1176), and by the Privacy Ombudsman at each hospital (17, 84, 113). Leaders/ managers and health professionals who participated in the cross-sectional survey study gave their informed consent on the first page of the survey. All participants were given written information about the study, the study procedures, confidentiality, and the opportunity to withdraw at any time.

3.4   Data collection

The national competency network, Children's Best Interests, provided names and e-mails of the 1-2 Hospital coordinators (H-CRP) from the each of 19 health trusts in Norway and two private hospitals, which participated in the national coordinator network.
At the five hospitals, clinics with outpatient and inpatient units were stratified and randomly selected to take part in the CHIP study. The project coordinators at each of the five hospitals provided names and e-mails of 15 leaders/ managers, including the technical director, and 30 child responsible personnel, from the randomly selected units participating in the study. The response rate was 100% for H-CRP, 72% for CRP and 68% for leaders. Other health professionals treating patients recruited through the larger part of the CHIP study were also asked about their family focused practice, and these data were included in the thesis.

Of the 534 patients recruited, 278 (52%) of the health professionals responsible for treatment participated in the CHIP study. Some of them completed questionnaires about more

than one patient, but the Family Focused Practice Questionnaire (FFPQ) (130) was answered only once, leading to 176 answers.

3.4.1 Study 1

The data for study 1 were collected by the PhD-student from June 2013 to March 2014. The participants completed a web-based version of the ICQ (60) during a telephone interview. To secure a high response rate, e-mail reminders were sent, as well as follow-up phone calls. When leaders and child responsible personnel agreed to participate, an appointment was set up, and the interviewer assisted with the log-on procedures and remained available for additional questions during the completion of the questionnaires. Completion of the questionnaire (ICQ) took approximately 30-40 minutes. Child responsible personnel also completed the FFPQ (130) used in study 2 and 3, which took an additional 20-30 minutes.

3.4.2 Study 2 and 3

Hospital coordinators and child responsible personnel filled in a web-based version of FFPQ while responding to ICQ. Additionally, other health professionals treating patients that had been recruited for the larger part of the CHIP study received an e-mail invitation with reminders. Link and password to the web-based version of the FFPQ (130) were given to the health professionals after confirmation to participate. The FFPQ was answered in addition to data on their patients and the children, which were used for other parts of the CHIP study.

3.5 Sample

A total of 358 participants took part in the three studies, 337 of them were from the five hospitals above, and 21 were from 16 other hospitals in Norway.

3.5.1 Study 1

The 167 of the 188 participants in Study 1 were recruited from a stratified, randomly selected sample of leaders/ managers (L) (technical directors, clinical heads of departments,

and unit managers) (*n*= 52), child responsible personnel (CRP) (*n*= 110), and hospital

coordinators (H-CRP) (*n*=5) from the five hospitals. Additional information was collected

from H-CRPs (*n* =21) from 16 other hospitals across Norway (17).

Many of the H-CRPs were highly experienced, and some had acted as champions for

children of ill parents for 10-15 years. In sum, the three participants groups consisted of

persons that were of the same gender, age, profession, and experience, but had different roles

in the hospitals (17) (Further description of demographics is found in Paper 1).

3.5.2 Study 2

The 280 participants in study 2 were recruited from stratified randomly selected units

at the five hospitals. The first group was child responsible personnel (CRP) (n= 104, 72%

response rate), one per unit, and the second group were other clinicians (C), (n = 176, 52%

response rate) treating patients who were recruited for the larger part of the multicentre-study

(113). Among them, 32 were also CRPs who were added to the first group of CRPs recruited.

The participants were primarily women with extensive experience as health professionals,

with more nurses and psychologists participating than social workers, physicians, and others.

Others included family therapists, physiotherapists, occupational therapists, hospital

chaplains, and nurse assistants. (Further description of demographics, professional

background and role in hospitals is found in Paper 2).

3.5.3 Study 3

Study 3 comprised the same participants as those in study 2, but in this study, we were

interested in differences in family focused practice between different types of health

professionals and roles (CRP and C).

Significant differences were noted between CRP and other clinicians (C) with regard to

gender, professional background, and whether they had received specific training about the

new legislation (e.g. Children's Best Interests 2x2 days pilot training or e-learning). Among the CRPs, there were more women and more nurses, social workers and others, and they had received more specific training after the changes in legislation. (Further description of demographics and professional background on role (CRP and C) is found in Paper 3).

3.6 Measures

3.6.1 Study 1

The Implementation Components Questionnaire (ICQ) was first adapted in Norway (60) from an earlier version of the Measures of Implementation Components, developed by the National Implementation Research Network Frameworks by Fixsen et al. (53) and has demonstrated good psychometric validity (60). The 89-item questionnaire was slightly modified or reworded, e.g. parent management therapists/ multisystem therapist was replaced by child responsible personnel, and program was replaced by changes in law. Seven questions were added, especially to capture work to collaborate with other systems (e.g. regional health authorities, centres of expertise, municipalities, universities, non-governmental organizations, and politicians) (17). The present measure has nine subscales or implementation drivers. The items had five choices of response: no = 0, sometimes =1, and yes = 2, in addition to 'not relevant' and 'I don't know', which were treated as missing.

The Implementation Satisfaction Scale (17). The respondents were also asked four questions about their satisfaction with the implementation process, which were used to create an implementation satisfaction scale: 1) All in all, it is my experience that the work for children as next of kin has been difficult in my unit; 2) The work for children as next of kin is well integrated into my unit; 3) Overall, I experience success in promoting/ advocating the interests of children as next of kin; 4) I am satisfied with how the implementation of the

legislative amendments has been implemented into my unit. These were rated on a 5-point Likert scale, from strongly disagree = 1 to strongly agree = 5 (17).

Outcome measures used in both study 1 and study 2: The participants were asked whether their unit had made changes to better support children visiting their parents, such as a better play area or family room. During the recruitment process for the larger part of the CHIP study, 594 registration forms were collected, with anonymous data of the number of patients' children available for recruitment, and which controlled whether children were documented in patient health records as required. These data were used as an outcome measure in the studies to determine whether any association between the implementation scores and health professionals' compliance to register dependent children in parents' health record according to the new regulations (17).

3.6.2 Study 2 and 3

The measure employed in these studies (113) was adapted from the Family Focused Mental Health Questionnaire (130). The questionnaire has been used regarding family focused practice in relation to parental mental health problems in Australia (22, 146, 166), Ireland (151), Thailand (147) and Norway (154). The 49-item measure with 17 subscales employs a seven-point Likert Scale. Scores ranged from 1 to 7, from 'strongly disagree' = 1 to 'strongly agree' = 7, and 'not applicable' (N/A).

The measure was translated into Norwegian and made generic to focus on health professionals' (113) work with parents affected by all kinds of illnesses (not solely mental health). The translation was carried out by two persons separately (one of them the PhD student), and differences were discussed with three colleagues/ supervisors to reach consensus. Back-translation was conducted by a native English-speaking person, followed by

further discussions with the authors (one of them the co-supervisor) before finalising the Norwegian version (167).

Content validity of the items in the questionnaire was discussed with a sample of experts in this area, and the clarity of the questions and layout was tested in a pilot study with health professionals and user consultants. The main changes from the original questionnaire were that 'mental illness' was replaced by 'illness', 'mental health workers' was replaced by 'health professionals', and the new explanation before the questionnaire stated that the aim was to explore family focused practice within all types of illnesses (mental illness, physical illness and substance abuse), as required by the new Norwegian law (113).

The subscale 'Family (and parenting) support' is defined as; 'Providing resources and referral information to consumers and their families', and includes the following questions; ' I regularly have family meetings (not therapy) with consumer-parents and their family, I provide written material (e.g. education, information) about parenting to consumer-parents, I regularly provide information (including written materials) about mental health issues to the children of consumer-parents, I often consider if referral to parent support program (or similar) is required by consumer-parents, I provide education sessions for adult family members (e.g. about the illness, treatment)' (213:4).

The subscale 'Referrals' is defined as 'Referring family members to other programmes' and includes the questions; 'I do not refer children of consumer-parents to child focused (e.g. peer support) programs (other than child and adolescent mental health), I refer consumer-parents to parent-related programs (e.g. parenting skills)'(213:5). Definitions of the other FFQ subscales can be found in the second PhD-article (117), with further description of the items and the subscales is found in Maybery (134, 214).

Other measures: Health professionals were also asked: 1) how many conversations they had had with parents about their children being next of kin, 2) how many conversations they had had with children, and 3) how many parents during the last two months had refused conversations with their children. These were rated as follows: none = 0, one to two =1, three to five = 2, over five = 3. Health professionals were also asked whether they had participated in specific training to be able to deliver family focused practice in accordance with changes to the law. These where rated: no = 0, to some degree = 1, yes = 2.

3.7 Analysis

3.7.1 Study 1

The statistical analyses were performed with SPSS (version 21). The 96-item adapted version of the ICQ measure was first analysed by scale reliability analysis, suggesting seven items be deleted before the component analysis. The measure was tested for internal consistency and an exploratory component analyses using Categorical Principal Component analysis (CATPCA) (212). The new 89-item measure used in this study (17) had satisfactory psychometric qualities compared to the earlier 89-item version used by Ogden (60). However, the 16 items of the systems level interventions scale were best described by a two-dimensional solution: a) System Intervention, b) Resources. The first dimension focuses on the type of collaboration/ resources to work with the outer context (e.g. regional health authorities, centres of expertise, municipalities, universities, non-governmental organizations, and politicians). The second dimension focuses on type of work/ resources to establish the inner context (e.g. the organisation has time and capacity to lead the work, the health professionals have time to work with families and children).

The Cronbach's alphas of the subscales ranged between 0.74 and 0.93 (Selection 0.74, Training 0.80, Supervision 0.88, Performance 0.86, Data systems 0.80, Administrative

support 0.78, Systems Intervention 0.88, Resources 0.81 and Leadership 0.93). The Cronbach's alpha of the new implementation satisfaction scale was 0.88.

Descriptive statistics were used to examine the scores of the implementation drivers and the implementation satisfaction scale. Mean scores for the five hospitals and the additional group of H-CRPs, in addition to differences between types of personnel, were calculated. Differences were examined using ANOVA. Post hoc p-values were corrected with Bonferroni. In analyses including the additional hospitals, differences (ANOVA) between smaller, medium, and larger hospitals across Norway, as reported by the hospital coordinators, were also examined. Finally, correlation between implementation drivers and satisfaction with the implementation process were calculated before multiple regression analyses were performed to examine predictors of successful implementation (17).

The hospitals were also compared on how they met law requirements. The number of child responsible personnel per hospital was calculated, in addition to differences between hospitals in establishing play areas/family rooms. The registration forms, with the number of patient's children determined on the recruitment days, were compared to documentation of patient's children (in the patient's electronic health record) were explored, and descriptive statistics were used to calculate differences between hospitals (17).

3.7.2 Study 2

Reliability of the measure was analysed with Cronbach's alpha reliability analysis, using SPSS (version 24). Three items were removed from subscales, producing higher reliability on the training, confidence, and family support subscales. Reliability of the subscales ranged from 0.17 to 0.80, with seven scales scoring under 0.60.

Descriptive statistics for characteristics of the participants were calculated and differences between hospitals were explored. Mean and standard deviations for each of the ten

FFPQ subscales with acceptable reliability (168, 169) were calculated. A two-way between group analysis of covariance (ANCOVA) was performed to determine differences between hospitals at the level of family focused practice, controlling for the demographics, professional background, role (CRP and C), and having received specific training. As there was no statistically significant interaction effect between the role of personnel and hospitals on any of the subscales, only differences among hospitals were reported. The hospitals were also compared on other aspects of family focused practice. The registration forms, with the number of patient's children found at the recruitment days, compared to documentation of patient's children (in the patient's electronic health record) were explored, and descriptive statistics were used to calculate differences between hospitals and types of services (113).

3.7.3 Study 3

Descriptive statistics and chi-square tests were used to calculate differences of demographics and professional background between child responsible personnel and other clinicians. A one-way between groups analysis of variance (ANOVA) was conducted to determine the impact of professional background on family focused practice, as measured on the FFPQ. Descriptive statistics and chi-square tests were used to determine the impact of professional background on three additional questions of health professionals having conversations with parents and children, and parents refusing conversations with children last two months. Then a two-way between groups analysis of covariance (ANCOVA) was performed to determine the role of health professionals (CRP and C) on the level of family focused practice, while controlling for the demographics, professional background, and having received specific training. Professional backgrounds were coded as dummy variables with nurse as the reference category. No statistically significant interaction effect was observable between the role of personnel and hospitals on any of the subscales, and therefore differences between CRP and C are reported here.

Finally, correlation between the family focused practice subscales, demographics, professional background, used as independent variables (IV), and five family focused practice behaviours, used as dependent variables (DV), were explored, followed by a multiple regression analysis. It is suggested to have 10-15 cases per predictor (170), which indicates that using a parameter of sixteen independent variables, 280 cases, should be suitable for this analysis. The electronic questionnaire did not allow any missing values. Most subscales had less than 5% for N/A, except for family support and referrals, indicating that family support and referrals was not appropriate or necessary for some families. As these subscales were used as dependent variables in the regression to explore true predictors of family support and referrals, the N/A were not included in the regression analysis.

4 Summary of findings

This chapter presents an overview of the findings and conclusions of each of the three papers included in this thesis.

4.1 Study 1

Skogøy BE, Sørgaard K, Maybery D, Ruud T, Stavnes K, Kufås E., Peck, G.C., Thorsen, E., Lindstrøm, J.C. & Ogden, T. Hospitals implementing changes in law to protect children of ill parents: a cross-sectional study. BMC Health Services Research. 2018;18(1):609.

The Norwegian strategy to establish the changes in law comprised mostly of dissemination efforts, rather than being an implementation strategy. This strategy was inadequate to secure equal chances of protection for children with ill parents.

Clear implementation differences were noted between the five hospitals, especially in relation to supervision, data support systems, and leadership, with lowest scores from the smallest hospital, and the highest score from the two university hospitals. Additional analyses, comparing 21 hospitals, as reported by the H-CRP, suggest a clear pattern of smaller hospitals having less innovative resources to implement new ideas or practices, such as the policy changes.

There were clear differences between types of personnel, with child responsible personnel scoring significantly lower than leaders, suggesting that leaders underestimate the implementation challenges.

Leadership, resources, and system intervention (strategies to work with other systems) were key predictors of a more successful implementation process, with hospital coordinators having a key role in collaborating with other services to establish support for children.

Conclusion: Legal changes are helpful, but quality improvements are needed to secure equal chances of protection and support from health professionals at the included Norwegian hospitals.

4.2 Study 2

Skogøy BE, Maybery D, Ruud T, Sørgaard K, Peck GC, Kufås E, Stavnes K, Thorsen E, & Ogden T. Differences in implementation of family focused practice in hospitals: a cross-sectional study. International Journal of Mental Health Systems. 2018;12(1):77.

Overall, health professionals scored high on knowledge and skills, and they were confident in working with families and children. However, the findings showed moderate levels of family support and referrals.

Comparison of the five hospitals showed significant differences on three Family Focused Practice (FFP) subscales: workplace support, knowledge and skills, and family support. Health professionals at the smallest hospital had less workplace support and less knowledge and skills, but they scored medium on family support. The two largest hospitals scored highest on family support, interestingly with significant differences on parents refusing to have conversations with children.

Registration of children in the parent's health records was higher (61%) than the 44% found in 2012 (only one mental hospital included) (102). However, there were clear differences between hospitals (51-82%) and types of services (51-71%).

Conclusions: The hospitals were still in an initial implementation stage and were only beginning to establish the new practice. Differences in adherence to the guidelines of family focused practice highlights the need to tailor improvement strategies to barriers at the different hospitals. Making use of implementation theories and improvement strategies could

facilitate reaching a full implementation stage, in which all families and children in need are identified and have access to family support.

4.3 Study 3

Significant differences were noted between professions (nurses, social workers, psychologists, and physicians) on seven of the family focused practice (FFP) subscales. Physicians scored significantly lowest on five of the FFP subscales. However, they scored medium on family support. Psychologists gave significantly less family support than social workers and nurses did.

There were significant differences between child responsible personnel (CRP) and other clinicians (C), with CRPs scoring significantly higher on three of the FFP subscales: knowledge and skills, confidence, and referrals.

Predictors of delivering family support were organization-related factors (time for family, specific training, and co-worker support), and worker-related factors (type of profession, gender, and connectedness). Type of profession was an important predictor of family support, indicating that social workers had more undergraduate training to do this type of work, followed by nurses, alternately, the results could suggest that social workers and nurses have been more willing or able than psychologists to provide family support.

Conclusion: The results confirm the need to focus on both organization-related and worker-related factors to be able to establish a family focused practice in the hospitals. The results highlight the importance of multidisciplinary teams and the need to tailor training strategies to the different types of health professions, to strengthen their ability to support children as next of kin.

5 Discussion

The aim of this thesis was to contribute to the understanding of how changes in law, with a new family focused policy, was received by Norwegian hospitals and health professionals, and whether these changes were implemented as intended. The following discussion focuses upon: the differences in implementation of family focused practice between hospitals (Study 1 and Study 2), and differences in family focused practice between types of professional background (physicians, psychologist, social workers, and nurses) (Study 3). The discussion then focuses on a broader understanding of the results, including clinical implications and recommendations for future research. The discussion also focuses upon limitations of the thesis, including methodological considerations that arose from the work.

5.1 Discussion of main findings

5.1.1 Implementation differences between hospitals

Study l determined that the smallest hospital scored lowest on the total implementation score and on the three subscales: supervision, decision support data systems, and leadership (17). This finding was supported by additional analyses in which smaller, medium, and larger hospitals, as reported by the hospital coordinators across Norway, were compared. The outcome suggests a clear pattern of higher barriers when smaller (and often rural) hospitals are compared to medium and larger hospitals are implementing changes in law (17). This is in line with a previous meta-analysis of innovation adoption research, showing that organizational size can be an important factor (171), but the finding may vary based on other factors such as how size is measured (172). Studies have also found higher barriers to implementing change across dispersed and rural organizational units, compared to more centralized organizations (173, 174) or communities (175).

Study 1 also found that leadership, resources, and systems interventions were predictors of implementation satisfaction, suggesting that hospital leadership is strongly associated with implementation satisfaction, and that the leadership has a key role in establishing resources both for systems change within the organization and for collaborating with other systems (17). Study 2 found – in a comparison of the five hospitals – significant differences on three FFP subscales: workplace support, knowledge and skills, and family support (113). The smallest hospital had less workplace support and less knowledge and skills, and it scored lower on having conversations with parents, but medium on family support (113). The two largest hospitals scored highest on conversations with parents and on family support.

These findings confirm those of Study 1, with higher barriers at the smaller hospitals, compared to the larger hospitals, to implement the policy changes and establish a family focused practice. One reason might be that smaller (and often rural) hospitals have fewer resources and that larger organizations might have better structural resources, such as role specialization and existing knowledge and skills for innovative practice (17, 55). This confirms another study that determined that lack of resources was a major barrier, and that rural hospitals were less likely to implement electronic health records when compared with urban hospitals (174).

The most important reason for the higher implementation barriers might be the lack of leadership support and supervision strategies at the smallest hospital. Leadership support is important to succeed with implementation (21, 31, 176). Especially in the health care sector, with complex systems and multiple levels of professionalized autonomous practice, leadership is necessary for large-scale transformative change in addition to having good mentoring strategies to develop shared and evolving leadership (177).

Another important issue is the lack of decision support data-systems at the smallest hospital, which makes it difficult for leadership to follow the implementation process in real time and to provide feedback to the practitioners (17). Feedback interventions can be effective to change behaviour and facilitate guideline adherence (178). The importance of leadership, effective data management systems, and supervision has also been found in studies examining the implementation of family-centred preventive interventions for military families (124).

5.1.2 Differences in family focused practice between types of professions

Somewhat surprisingly, study 3 indicated that practitioners with higher levels of education (psychologists and physicians) scored lowest on the requirements to do family focused practice. However, this does support an earlier Norwegian study, which determined that health professionals with medium education (mainly nurses) were more positive to identify children of mentally ill parents, compared to those with high education (mainly medical doctors and clinical psychologists) (154).

Previous research has shown that different health professionals have different learning needs regarding family focused practices, with knowledge about parenting being rated as the greatest learning need for all professions (145). While study 3 found that Norwegian social workers and nurses scored higher than psychologists did, Australian nurses have been found to score lower than psychologists (146). This may indicate that Australian psychologists have more training in family focused practice in their undergraduate training than psychologists in Norway, or that Norwegian nurses have responded more rapidly to the policy changes. It could be argued that physicians and psychologists are less family focused because they have different roles in the hospitals with more administrative work and less time for this type of work. Another suggestion is that their education has a lower family focus. In the USA, a study of medical education curriculum guidelines found that physicians were ill-prepared for working with family members of their patients (179).

More generally, other studies also demonstrate that practitioners with more education score lower on implementing new evidence-based practices (182-184). It might be that physicians and psychologists are less open to change and less inclined to adopt new practices, and that health professions with a higher level of education rely more on their autonomous decision-making rather than accepting new requirements (180).

To change the attitudes of the health profession to EBP in general, and to family focused practice specifically, long-term strategies are required in which new theory is included into the educational system. Another suggestion is to collaborate with champions within their own professions and recruit more child responsible personnel as change agents within their profession (psychologists and physicians) to influence their peers. Of the CRPs recruited for this study, most were nurses and social workers. It clearly seems to have been more challenging to recruit psychologists and physicians to the change agent role (being child responsible personnel), which supports the findings of another study (183).

5.1.3 Quality indicators, outcome

The ultimate benefits of preventive interventions are improvements in consumer well-being (52), and/ or that the prevalence and incidence of problems has been reduced in the targeted population (184). In the larger part of the CHIP study (84), parents and children answered questions regarding the satisfaction with the family support, which can be used in later comparisons of outcome types. There was also a one-year follow-up study of parents and children, with measures of health, wellbeing, caring activities, school and family situation.

Implementation studies use different measures to determine how well a treatment, service, or program is implemented (185). Fixsen suggests two types of fidelity or outcomes: intervention fidelity, which refers to whether the core program components are delivered as intended, and implementation fidelity, which is focused on the support or implementation drivers that need to be in place to implement the intervention (47, 51). Programs and new

practices need to be fully operational before positive outcomes can be expected (21, 31), and premature evaluation may lead to poor results that underestimate their effectiveness.

The new legislation was based on research evidence but was not a well-defined evidence-based practice. The hospitals were required to develop clinical guidelines. Study 1 found that in 2013/2014, all five hospitals had developed such guidelines to ensure compliance with the new regulations (87). Later, the National Competence Network started a process to further develop evidence-based guidelines and procedures, which were completed in 2017 (112). In addition, The Directorate of Health initiated a broader project to develop guidelines for Health and Care Services work with all types of next of kin, in which children as next of kin were included. These were accessible from 2017 (111). Extensive literature searches have been conducted regarding the support of the new procedures and guidelines (111). While such a development process has taken a long time, it might be a strength that children as next of kin are included as part of a broader Norwegian next of kin strategy.

It is also important to note that the Norwegian efforts to establish the changes in law comprised dissemination efforts rather than being a high-quality implementation strategy (17). Implementation teams were not established, and the hospitals were not offered funding for hospital coordinators until 2013 (17). This means that when this thesis uses an implementation lens to study the policy changes, it is not comparing the outcomes to high quality standards with a well-defined program, which may lead to underestimating the effectiveness of the policy changes. On the other hand, it might be able to see possibilities for improvements that might help to achieve better results in the future.

Examination of the *implementation outcomes*, using Fixsen's Implementation drivers, measured by ICQ (60), H1 and H5, were on each end of the scale, with the other three hospitals varying in between. H1 had significantly lower scores than H5 on the total

implementation score, especially on leadership, decision support data systems, and supervision (17). H1 also scored lowest on implementation satisfaction, with H5 having the highest score, but this difference was not significant. A similar pattern was shown by FFPQ, with H1 scoring significantly lower than H5 on workplace support and knowledge and skills (113). The most striking differences between these two hospitals were the difference in size, with H1 being the smallest and in the most rural area. H5 was a large university hospital (17). Furthermore, H5 had a full-time hospital coordinator, whereas H1 had no hospital coordinator (17).

In the case of the *intervention outcomes*, the same pattern is present of the smallest hospital scoring lowest and the largest hospital scoring highest, which suggests a clear association between the implementation outcomes and the intervention outcomes (113). In sum, H1 scores low on several of the intervention outcomes: registration rates and conversations with parents about children's needs, and medium on family support – but still significantly lower than H5 (113). H5 has the highest total registration scores, high scores in conversations with parents, and the best scores on family support.

However, the scores on family support and referrals were between 'neither nor' and 'to some degree' for all hospitals, indicating that they were still in an initial implementation stage. Based on a total judgement of intervention outcomes and the levels of ratings, there were clear differences in how the hospitals fulfilled the legal requirements, and the legislation was only partly implemented. This confirms the findings of previous Norwegian studies from a mental hospital (102, 154, 183). Swedish studies also report implementation challenges, with low adherence to registering children that are minors (97) and a need for more collaboration between services (186).

5.1.4 The Norwegian journey

5.1.4.1 *The awareness process*

Norway has participated in a 20-year awareness process in the Nordic countries, which has resulted in quite similar legislation in Finland, Sweden, and Norway to support and protect children of parents with all types of illnesses. Denmark has not made such changes, but has national recommendations inspired by the Norwegian legislation. Scientific research, champions, clinicians, non-governmental organizations/ user-organizations, and politicians have collaborated in this long-lasting process, with important contributions from learning networks within the different countries and across the Nordic countries. These combined bottom-up and top-down processes appear to have contributed to the political initiatives and to the changed legislation. This is in line with Bowen (187), who states that 'fundamental to the transfer of evidence into policy and practice is diffusion, the process by which an innovation' (e.g. a policy idea) 'is communicated over time among members of a social system (27)'.

5.1.4.2 *Policy and legislation*

What happened in Norway after the new policy and legislation changes from 2010? In the first study in the thesis, we found that Norwegian efforts to implement changes in the hospitals comprised most dissemination efforts, rather than constituting an implementation strategy (17) and that this strategy was insufficient to secure equal chances of protection and support for children, with clear differences between the hospitals (17). The second study of the thesis (113) found that, after four years, the hospitals were still in an initial stage of implementation, rather than having reached a full implementation stage (113). The findings support other research, which indicates that lack of infrastructure for implementation is leading to legislated goals in human services not being achieved (188). Earlier studies suggest that high-quality implementation processes with implementation teams can have 80% success

after four years (189). However, with diffusion and dissemination processes, only 14% of new innovations were used after 17 years (190, 191).

Based on the research evidence from implementation in general, implementation of policy, legislation and guidelines, implementation in hospitals, and implementation of family focused practice, we would argue that the national health authorities could have chosen a more active implementation strategy and shown a clearer national leadership when the changes in law were launched. Research suggests combining top-down and bottom-up approaches in such a way that knowledge from 'evidence-based-practice' and 'practice-based evidence' are used (52). Development of implementation capacity in the form of implementation teams, that help assure ongoing implementation support for several programs and add new programs and practices to those already in place, could be a way forward (48, 54, 192).

5.1.4.3 *National competency network*

The national health authorities chose to establish a national competency network, Children's Best Interests, but implementation strategies were not included in their remits until 2014, when a steering group with representatives from the four regional health authorities also were established (17). While building such a network outside the ordinary structure of the hospitals provided greater freedom, they might have had difficulties in influencing the formal leadership structure in the regional health authorities and the hospitals. Such a structure had clear weaknesses. The hospitals had few top-down incentives from the government and the health authorities to follow up on the policy changes, which may especially have provided few incentives for hospitals where the leadership lacked the awareness and readiness to change. Child responsible personnel without leadership support might struggle to establish the organisational drivers to support the implementation. The lack of national top-down strategies may have contributed to the differences between the hospitals.

A strength of the national competency network Children's Best Interests is that it can help build bottom-up processes among the change agents and champions. Learning networks for researchers, hospital coordinators, and user consultants have been important, in addition to the systematic collecting of knowledge and the establishment of web-based training resources. They have gradually clearly established themselves in a position to collaborate with and influence different types of systems. While research was not included from start, their research network has contributed to the development of several research projects, one of them this CHIP study.

Finland and Sweden seem to have included a stronger emphasis on research from the onset, whereas in Norway research projects were initiated by clinicians and researchers in a bottom-up process. In Finland, the Effective Family Program Family was a combined research, development, and implementation project (71), and in Sweden, the National competence network for next of kin (NKA) and Linnè University were mandated to secure the implementation (91), which has resulted in several register studies and research summaries (1).

5.1.4.4 *Funding of the implementation in the hospitals*

Initially, no funding was available to Hospital coordinators to help establish and train the child responsible personnel (17), but evaluations contributed to changes in the founding stream (82, 87). The funding of hospital coordinators from 2013 varied according to hospital size, from 300 000 - 600 000 Nkr per year, and was not enough for a full-time position. Most hospitals coordinators worked 20-50% and shared their time with another position. Only one hospital established a full-time hospital coordinator position. Another important issue was that the smallest hospitals received less money to establish the policy changes when compared to the larger hospitals, which resulted in the smaller hospitals establishing hospital coordinators in a 20% position, often with limited top-leadership support.

The changes in law required that the hospitals should, have child responsible personnel. Children's Best Interests suggested two per unit. In total, we found 1429 CRPs appointed in Norwegian hospitals (84). In the five hospitals, the number of CRPs was lower (per inhabitants served) for the larger hospitals. Without a hospital coordinating resource, it is difficult to establish both the training and supervision resources to change a whole workforce practice.

5.1.4.5 *Leadership awareness and readiness to change*

The leadership's awareness of the numbers of patients as parents and understanding the hospital's role in health promotion and prevention for the patient's children may not be clear enough. It is also possible that the leadership are well informed of the trans-generational risk for children of ill parents, but that they do not have adequate resources, or that the leadership do not prioritize this topic high enough compared to other important issues in the hospitals. The national health authorities may have better highlighted the very high societal costs for this high-risk group of children (1), and the need for the hospitals to take part in the large-scale prevention efforts.

Another question is whether the hospital leadership had enough knowledge of more general implementation strategies, and whether there is a need to strengthen this type of knowledge, especially at the smaller hospitals. For instance, the LOCI leadership and organizational change for implementation intervention has been found to improve staff-rated leadership for EBP implementation (193), and could have been used to strengthen general implementation leadership. If the general implementation knowledge is good, it may be that there is a need to strengthen the organizational readiness to change specifically in relation to family focused practice to support children as next of kin.

5.1.4.6 *National quality indicators*

National health authorities could also have established national quality indicators from the start to illustrate the importance of the new policy changes, and to monitor the implementation. Hospitals managers may not prioritize issues that are not included in national quality measures. Findings of this thesis highlight the need to establish national quality indicators in relation to the law changes. These could include a) the number of patients registered as parents and b) the registration of children in parents' health record, suggested by Barns Beste (Children's Best Interests), The National Competence Network for Children as Next of Kin in Norway (113).

However, the registration practice does not necessarily correspond to the delivery of family support. In Sweden, three activity codes (KVÅ koder) were established from 2014 (194): a) DU055, conversations with parents about children's needs, b) DU056, conversations with parents and children together, and c) DU057, conversations with children. These codes are reported to a national register, thus making it possible to study the types of interventions delivered. It would be valuable to use the same codes across countries.

5.2 Methodological considerations

All three studies in this thesis used a cross-sectional design, which is suitable for explorative studies and estimating prevalence. However, limitations are inherent in cross-sectional research. One such limitation regards drawing conclusions from regression analyses (195), as factors can be associated with, rather than predictive of, implementation satisfaction (Study 1) and family focused practice behaviour (Study 3).

A longitudinal study with pre-post measurements of the situation at the hospitals could have provided a clearer understanding of the different phases of the implementation process.

The sample of leaders/ managers, child responsible personnel, and other health professionals were recruited from stratified, randomly selected inpatient and outpatient clinics/units from five hospitals covering 34% of the Norwegian population. Additional information was collected from H-CRPs (n =21) from 16 other hospitals across Norway, of which two were private hospitals (19). This is a key strength for study 1, and made it possible to compare differences between the five hospitals to do additional analyses where responses from hospital coordinators from all health trusts in Norway were compared.

The hospitals' response rates varied for different types of measures. The total response rates for study 1 (L, H-CRP, and CRP) varied at the hospitals between 64-78%, which is relatively good. Response rates for study 2 and 3 varied at hospitals between 67-87% for CRP, and between 31-75% for the other clinicians.

H1 and H4 recruited most health professionals. H1 and H5 collected more responses of children registered in parents' health record, which suggests that these scores have more statistical power than hospitals with fewer registrations (196). In sum, H1, H4, and H5 had very good response rates, suggesting a low risk of bias when interpreting results from these hospitals, which represent both the lower and the higher end of the scales.

A key strength is that the study includes different types of health professionals, working in different parts of the specialized health services, such as mental and physical health, in addition to substance abuse clinics.

Another strength was the inclusion of independent outcome data of children documented in the patient's health records. This is also in line with recommendations (55, 60) to include other outcome data, such as adoption and penetration within an organisation (17).

Limitations were also noted in each of the three studies as follows:

5.2.1 Study 1

Study I examined implementation drivers (as measured by ICQ) (60), the implementation satisfaction scale (as measured by ISS) (17) and implementation outcomes (as measured by independent data of children registered in patients' health records) (17, 84).

5.2.1.1 *Limitations*

Implementation was measured once, while it ideally should be measured several times to allow an examination of changes over time (21), which is needed to measure outcomes such as the sustainability of new interventions (53).

The data collection took several months, which might have led to some differences in the staff's perception of the implementation process. On the other hand, there was a good response rate (73%) that was consistent across the five hospitals, (n = 31-36), and it is therefore assumed that the hospitals were represented.

The sample differed between the number of leaders ($n=52$), and the number of child responsible personnel ($n = 110$) and hospital coordinators ($n = 5$). Although we found differences in implementation scores when we compared answers from these groups, the unequal sample size across the groups decreased the statistical power (196). This may increase the risk of bias and indicate that some precautions should be taken when interpreting the results. Another limitation was that the implementation data, including satisfaction ratings, relied on self-reports that have the potential to be biased (197).

5.2.1.2 *Contributions*

In terms of transferability, there are key strengths of this study. A well-known framework of Fixsen (20) was employed that is based on an extensive literature review (21). The study (17) reports on leadership and organisational drivers, which are not commonly empirically examined and reported (21, 52, 198).

The results from Study I (17) have indicated weaknesses in the AIF framework (20), as resources are not specifically described as an implementation driver. It might be useful to distinguish between a) resources to establish the internal organisational structure and competency drivers and b) resources to establish the cooperation with other systems, such as politicians, municipalities, NGOs, child and adolescent services, and universities, to collaborate on establishing the new policy.

For this thesis, an implementation satisfaction scale was developed with four questions with high reliability. It is possible that the new implementation satisfaction scale can be used in follow-up studies of the implementation of the changes in law, and it might also be useful in other settings.

In study I, it is possible that findings of leadership, resources, and systems intervention associated with implementation satisfaction (17) can be transferred to other settings within the specialized health services. The finding that the smallest hospital scored lowest on implementation was supported by additional comparisons of smaller, medium, and larger hospitals in Norway (17) and might have important implications, as they may be generalized to other implementation settings in the specialized health services. However, it is important to try to replicate these findings over time and in other studies.

5.2.2 Study 2

Study 2 examined family focused practice (as measured by FFPQ) (130) across five hospitals in addition to three questions of conversations with parents, children, and parents refusing conversations with children (17), and implementation outcomes/ adherence to practice guidelines (as measured by independent data of children registered in patient's health records) (17, 84).

5.2.2.1 *Limitations*

The response rate for child responsible personnel was high (73%); however, it was lower (52%) for the second sample of clinicians who treated patients recruited for the larger part of the study (113). One reason for the lower response rate was that the second group was recruited via their patients that consented to participate in the larger part of the CHIP study. This could have induced a recruitment bias, with lower participation from health professionals with less interest in this topic, or with higher workloads (e.g. psychologists and physicians). Another limitation was that the family focused practice data relied on personnel self-reports (potentially biased) (196).

The FFPQ measure (130) was not specifically designed to capture the family focused practice in the context of Norwegian changes in law, which could have prevented us from discovering other important aspects of the new law requirements. The inclusion of three additional questions about conversations with parents and children, and the refusals of conversations with children, were only single questions and were not a developed scale with reliability testing. This suggests that some cautions should be exercised in interpreting these results.

5.2.2.2 *Contributions*

In terms of transferability, a key strength of study 2 was the use of a well-known framework based on a literature review (128, 130). Moreover, the measure has been used in several countries, which makes it possible to compare results across countries, though some cautions should be taken in comparison of concepts across countries (199).

Results of study 2 indicated some weaknesses in the FFPQ measure, with only ten of the seventeen subscales having high enough reliability to further analysed in this study. This finding confirms low reliability scores on three subscales found by the developers (130) and

adds to knowledge from other studies in which the measure has been used (147, 151, 166, 200). A previously validated measure may not be valid in another time, culture or context (199), and though the described stages of the cross-cultural adaption process are followed (167), original scales may not be reliable (199). On the other hand, using the same measure in several studies, and across countries, offers a possibility for future refinement of the measure, and increase the certainty that it reflects what it is supposed to measure (201).

In study 2, we found significant differences between the five hospitals, with the smallest hospital scoring lowest on workplace support and knowledge and skills (113). These findings support the findings in study 1, where the smallest hospital scores lowest on the implementation scale, especially on leadership, systems intervention, and supervision (17). These similar findings of lower scores on leadership and supervision at H1 in study 1 (using ICQ) and lower workplace support (e.g. supervision) at H1 in study 2 (using FFPQ) *cross-validate* that the measure scores of the two questionnaires represent the variables as intended. Study 2 found lower knowledge and skills at the smallest hospital, but we found no differences in training – neither in study 1 nor in study 2. This suggests that the quality of the training was poorer at the smallest hospital (113). It would have been valuable to have been able to distinguish between knowledge and skills, which this FFPQ subscale does not.

Findings in study 1 support the idea of supervision being a key competency driver (59) and that supervision contributes to the transformation of new knowledge being integrated to becoming new skills (17). The combined findings from study 1 and 2 suggest that the availability of supervision also is a strong *quality indicator* of leadership and workplace support. Training can be offered from national competency networks, NGOs, or established within short-term strategies, but to implement a structure of supervision, long-term strategies are needed to secure competence development with ongoing leadership support and resources. This finding might be transferred to other settings within the health services.

5.2.3 Study 3

In Study 3, the design, measure and sample were the same as in study 2, but instead of comparing hospitals, we now compared types of health professionals (nurses, social workers, physicians, and psychologist). In addition, we compared health professions in the CRP role with other clinicians, controlling for confounders such as gender, length of experience, specific training received, and type of profession. We also explored predictors of family support practices by drawing on earlier research (22, 128, 152).

5.2.3.1 *Limitations*

Some of the limitations in study 3 were the same as in study 2, e.g. that the family focused practice data relied on personnel self-reports, which may potentially be biased (196). Another limitation was the difference in response rates, with lower response rates for clinicians (52%) than for the child responsible personnel (73%).

Differences were also noted in the recruitment of the types of professions, with more nurses ($n = 101$) and psychologists ($n = 71$) participating than social workers ($n = 42$), physicians ($n = 32$), and others ($n = 34$). Unequal sample sizes across groups decrease the statistical power, as the probability of finding statistically significant evidence of a difference is easier in a larger sample (196).

As this is a cross-sectional study, it is important to note that the relationship found in the regression analysis may not be causative. Another important weakness was the lower level of variance explained with the regression equation for conversations with parents (21%), conversations with children (11%), and refusals of conversations with children (10%), while the variance explained for family support (45%) and referrals (39%) were considerably higher. This suggests that other characteristics of the organization (e.g. inpatient or outpatient clinic) or types of services (substance abuse, physical health, and mental health) could be

important, but are not measured or analysed in this study. Families' help seeking may be influenced by different levels of stigma related to types of illness, e.g. in the recruitment for the CHIP study, it was easier to recruit children of parents with physical health problems compared to families with other illnesses, especially compared to children of parents with substance abuse problems. Differences may also be present in the worker's background (e.g. parenting status) that could have been better explored and which is reported in another study (153). Another weakness is that characteristics of the illness (acute or long-term) or characteristics of the families (e.g. age of children) may be important for the levels of conversations with parents, children, and families (113). Younger children have been found to receive less information than older children (84, 202). Suitable information and support to adolescents 14-18 years would certainly be different than the support needed for younger children 0-4 years. The health professional's ability to understand and safeguard the needs of the individual child is crucial. These weaknesses in inclusion of possible predictors may be areas for future research.

5.2.3.2 *Contributions*

It is possible that the findings from Study 3, that both organization-related and worker-related factors predicted family focused practice behaviours, could be applicable to other settings within the specialized health services. It is notable that predictors of having conversations with patients about their children was less complex than delivering family support and referrals. Having conversations with parents on children's needs is the basis of the Norwegian legislation and resembles the Let's Talk model by Solantaus in Finland, and which demonstrates positive effects for children through supporting the parents (4).

Study 3 found that conversations with parents about children's needs was predicted/ associated with knowledge and skills, low experience, and gender. This suggests that this type of intervention is a low threshold intervention, with a potential for rapid up-scaling, as it is

associated only with worker-related factors. Younger/ newly trained females might quite easily follow up on the new legislation, as they may have more knowledge and skills about children as next of kin from their undergraduate training, or they may more easily adapt to the new requirements. On the other hand, the gender differences suggest that male health professionals may need more attention to be able to do the same.

Our findings, that predictors of delivering family support were organization-related factors (time for family, specific training, and co-worker support) and worker-related factors (type of profession, gender, and connectedness) confirm earlier research (128). The type of profession was an important predictor of both family support and referrals, indicating that social workers, followed by nurses, had more undergraduate training to undertake this type of work. Another explanation may be that they have been more willing or able to follow the new requirements. The total regression model explained 45% of the variance, with organization-related factors explaining 33% of the variance. This finding is congruent with Aarons et.al. (203) who claim that organization-level issues have more impact on successful implementation than individual factors do. Delivering family support and referrals could be a result of successful implementation.

It is also possible that the three additional questions of conversations with parents, children, and parents refusing conversations, could be included in refined versions of the FFPQ-measure. The finding that there were differences between two large hospitals on number of parents refusing conversations with the children adds knowledge to theory and practice, and indicates the need to further explore organization-related and worker-related differences that might be associated with the higher refusal rates.

5.2.4 Choice of methods and comparison of findings

This thesis aimed to study the implementation of Norwegian changes in law and guidelines to safeguard children as next of kin of parents with all kinds of illness.

A policy implementation framework (29) could have been chosen to study the Norwegian changes in law, but instead this research employed implementation science theory (21, 44, 45, 52, 143), and a health science tradition, which looks upon how evidence practices and guidelines are implemented. The Norwegian legislation was based on research evidence but was not well-defined evidence-based program; however, the health services were obliged to develop guidelines to follow-up on the legislation.

The AIF framework by Fixsen and colleagues (21) was used to explore implementation differences. As Norway is one of the first countries to have such legislation, with no studies allowing direct comparison of the results, the discussion of findings has been made in relation to state-wide or other large-scale implementation efforts (174, 177, 192, 204), especially programmes for children and families (21, 54, 57, 60, 124, 204), and guideline implementation in health care (114, 116, 117, 118, 119, 120, 205).

In this thesis, family focused practice (110) represents the continuum of practices needed to support the whole family unit, both the parent with an illness and the children, as required by the new legislation (18) and circular (rundskriv) (19) regarding children as next of kin. These regulations require health professionals to support children of parents with all types of serious illnesses or injury (mental, physical, or substance abuse). Internationally, there has been recommendation for family focused, family oriented and child-focused practices for children of parents with mental illness, physical illness and substance abuse problems. However, as this is a new research area, there are no other studies that include

studies of family focused practice for children of parents that focuses upon all types of illnesses. This is an important and unique contribution of the thesis.

The discussion of family focused practice findings has been undertaken in relation to studies from mental health in Norway (102, 154, 183, 206-208), studies from mental health in Sweden (96, 97, 186), mental and physical health in Finland (8, 92, 156, 209, 210), and physical health in Europe (149), and from mental health in other countries such as Australia (22, 128, 146, 212), Ireland (151, 153), and Thailand (147).

5.3 Clinical implications

The findings in this thesis may have implications for further implementation of the changes in law to protect children as next of kin. The implications are described in relation to the Active Implementation Framework (21). According to this model, the implementation process consists of different phases: exploration, installation, initial implementation, and full implementation stage. To succeed with the implementation process, certain implementation drivers needs to be in place: leadership (technical and adaptive), organizational drivers (facilitative administration, decision data support systems, and systems intervention), competency drivers (selection of personnel, training, and supervision), and performance assessment.

The findings in this thesis suggest that the process of implementation following the changes in law was in an initial implementation phase, and health professionals were only beginning to deliver the new services for families and children (113). In this phase, it is especially important for leadership to use decision support data systems to study the performance assessment (21) and to use rapid-cycle improvement strategies to increase the follow-up on the new guidelines of family focused practice (113).

The following briefly comments on each of the main implementation drivers: leadership, organizational drivers, competency drivers, and performance assessment – and I will make some recommendations on how each may be addressed to improve the implementation process in Norway.

5.3.1 Leadership

- A clearer national leadership should be established that focuses on implementation and quality improvements to secure support for patients in their parental role and to children as next of kin. Such an initiative could be linked to the existing National Patient Safety program (http://www.pasientsikkerhetsprogrammet.no/).

- Hospital leadership interventions (e.g. LOCI leadership and organizational change for implementation) intervention (193) should be offered, especially to smaller and rural hospitals to improve staff-related leadership for EBP implementation more generally, and to strengthen leadership's knowledge of children as next of kin.

5.3.2 Organizational drivers

- Resources for full-time hospital coordinators should be established. Hospital coordinators are essential to coordinate the work within the hospital and to cooperate with other systems such as universities, municipalities, and non-governmental organizations to build coordinated support for families and children.

- Implementation teams/ quality improvement teams should be established at each hospital to build support from within the hospital, especially in relation to leadership support, data-support systems, and supervision.

5.3.3 Competency drivers

- Hospitals should develop strategies to increase the family focus of physicians and psychologists. For example, a) select more physicians and psychologists as change

agents/ child responsible personnel; b) consider specific training and supervision strategies for these types of personnel.

- Hospitals should differentiate between how to implement the less complex interventions (talking with parents about children's needs) compared to the more complex interventions (delivering child- and family support). Delivery of the more complex interventions will require multi-professional teams with extensive training and supervision in models such as Family Talk (72, 124).

5.3.4 Performance assessment

- National quality indicators should be established. Collaborating with other Nordic countries defining such indicators could be valuable.

- Questions of patient satisfaction with offered support in their parental role and support for children as next of kin should be included in measurement of patient satisfaction with treatment.

5.4 Recommendations for future research

More broadly, it is important to secure funding and long-term strategies to study the implementation processes, different types of interventions outcomes, and whether these interventions lead to improved well-being and better health for parents and children. Cost effectiveness studies would also be valuable to determine whether the new interventions lead to lower prevalence for mental health problems for children as next of kin and lower societal costs.

The finding that the smallest hospital scored lowest on implementation was supported by an additional comparison of smaller, medium, and larger hospitals in Norway. Follow-up studies should attempt to confirm whether these differences are consistent over time, and if so, how these barriers should be overcome.

Differences in the health professional's ability to deliver family focused practice should be further explored. There is especially a need to determine what type of education and training might encourage health professionals with the longest education (psychologists and physicians) to adopt family focused practices, and how undergraduate training and/ or postgraduate training could facilitate their support of families and children.

In implementation research, there is a need to develop strong measures with good psychometric properties. The ICQ is a good measure to capture implementation differences, but a weakness is that it is relatively long, which may hinder frequent use. Future studies should attempt to shorten the measure and test it in other countries and settings. A weakness is that the original framework does not differentiate between resources to change the inner context (organisation) and resources to collaborate with the outer context (other organisations), and future research should endeavour to include both perspectives.

The concept and measurement of family focused practice deserves discussion. It would be particularly helpful to include more detailed questions to differentiate between conversations with parents, conversations with parents and children together, and conversations with children alone, to capture important dimensions of family focused practice. It could also be useful to measure knowledge and skills as two dimensions, as knowledge alone does not necessarily lead to a change of practice. Skills might be associated with knowledge but could also be associated with confidence and having received supervision, and to demographics like; gender, age or having children themselves. Using similar measures would make it easier to compare family focused practice across countries in addition to comparison between the fields of substance abuse, mental health, and physical health.

6 Conclusion

In general, the results of this thesis indicate that there was a lack of understanding of how implementation strategies could have been used to support the delivery of new policy and practice in the specialized health services. National implementation strategies were not included initially, and there was a lack of top-down processes to support leadership and organization's readiness to change. Neither resources for implementation teams and hospital coordinators nor national quality indicators were included from the start. After four years, the hospitals were still in an initial implementation stage and were only beginning to deliver family focused practice.

Implementation leadership support differed between the hospitals, which suggests a clear pattern of more challenges for the smaller hospitals that were usually more rurally located. These challenges were especially related to a lack of leadership, decision support data systems, and supervision. Leadership, resources, and systems intervention (strategies to work with other systems) were associated with a more successful implementation process, with hospital coordinators having a key role in establishing the inner/ outer strategy and structures.

Differences of health professionals' adherence to the guidelines of family focused practice highlights the need for the leadership to tailor improvement strategies to barriers at the different hospitals. The leadership can use data to drive decision-making in conjunction with rapid-cycle problem-solving. In the case of the implementation of new practices in specialized health care settings, it appears that it will require more efforts to encourage practitioners with higher educational levels (physicians and psychologists) than lower educational levels (social worker, nurses and others) to change their practices. This highlights

the need for multidisciplinary teams and to tailor improvement strategies to profession-specific needs.

This thesis also highlighted the need to consider the complexity of the new practices that should be implemented. The more complex the practices, the great the emphasis that should be taken to ensure that the organization-related factors are in place. In the future, making use of implementation theories and improvement strategies could facilitate reaching a full implementation stage, where all families and children in need are identified, and have access to family support.

References

1. Hjern A, Berg L, Arat A, Klöfvermark J, Manhica H, Rostila M, et al. Children as next of kin in Sweden. 2017.
2. Pakenham KI, Cox S. The Effects of Parental Illness and Other Ill Family Members on the Adjustment of Children. Annals of behavioral medicine : a publication of the Society of Behavioral Medicine. 2014.
3. Van Doesum KTM, Hosman CMH. Prevention of emotional problems and psychiatric risks in children of parents with a mental illness in the Netherlands: II. Interventions. Advances in Mental Health. 2009;8(3).
4. Siegenthaler E, Munder T, Egger M. Effect of Preventive Interventions in Mentally Ill Parents on the Mental Health of the Offspring: Systematic Review and Meta-Analysis. Journal of the American Academy of Child & Adolescent Psychiatry 2012;51(1).
5. Inhestern L, Haller A-C, Wlodarczyk O, Bergelt C. Psychosocial interventions for families with parental cancer and barriers and facilitators to implementation and use–A systematic review. PloS one. 2016;11(6):e0156967.
6. Järkestig Berggren U, Hanson E. Stödprogram riktade till barn och/eller föräldrar när en förälder missbrukar alkohol eller andra droger-en kunskapsöversikt. Nationellt kompetenscentrum anhöriga; 2016.
7. Solantaus T, Toikka S, Alasuutari M, Beardslee WR, Paavonen EJ. Safety, Feasibility and Family Experiences of Preventive Interventions for Children and Families with Parental Depression. The International Journal of Mental Health Promotion. 2009;11(4):15-24.
8. Solantaus T, Toikka S. The Effective Family Programme: Preventative Services for the Children of Mentally Ill Parents in Finland. The International Journal of Mental Health Promotion. 2006;8(3):37-44.
9. Reupert AE, Cuff R, Drost L, Foster K, van Doesum KTM, van Santvoort F. Intervention programs for children whose parents have a mental illness: a review. MJA Open. 2012;1(Suppl 1):18-22.
10. Fraser C, James EL, Anderson K, Lloyd D, Judd F. Intervention Programs for Children of Parents with a Mental Illness: A Critical Review. International Journal of Mental Health Promotion. 2006;8(1):9-20.
11. Goodyear M, Obradovic A, Allchin B, Cuff R, McCormick F, Cosgriff C. Building capacity for cross-sectorial approaches to the care of families where a parent has a mental illness. Advances in Mental Health. 2015;13(2):153-64.
12. Bayer J, Hiscock H, Scalzo K, Mathers M, McDonald M, Morris A, et al. Systematic review of preventive interventions for children's mental health: What would work in Australian contexts? Australian and New Zealand Journal of Psychiatry. 2009;43(8):695-710.
13. Bröning S, Kumpfer K, Kruse K, Sack P-M, Schaunig-Busch I, Ruths S, et al. Selective prevention programs for children from substance-affected families: a comprehensive systematic review. Substance abuse treatment, prevention, and policy. 2012;7(1):23.
14. Järkestig Berggren U, Hanson E. Children as Next of Kin: A Scoping Review of Support Interventions for Children Who have a Parent with a Serious Physical Illness. Child Care in Practice. 2015;22(3):277-95.
15. Niemela M, Hakko H, Rasanen S. A systematic narrative review of the studies on structured child-centred interventions for families with a parent with cancer. Psycho-oncology. 2010;19(5):451-61.

16. Reupert A, Maybery D. What do we know about families where parents have a mental illness? A systematic review. Child & Youth Services. 2016;37(2):98-111.

17. Skogøy BE, Sørgaard K, Maybery D, Ruud T, Stavnes K, Kufås E, et al. Hospitals implementing changes in law to protect children of ill parents: a cross-sectional study. BMC health services research. 2018;18(1):609.

18. Helse- og omsorgsdepartementet. Ot.prp. nr. 84. (2008-2009) Om lov om endringar i helsepersonell loven m.m. (oppfølging av born som pårørande) (About changes in the Health Personnel Act, children as next of kin) Oslo: Norwegian Ministry of Health and Care Services; 2009.

19. Helsedirektoratet. Barn som pårørende (Children as next of kin) Oslo: Directorate of Health; 2010.

20. Fixsen DL, Blasé KA. Drivers framework. Chapel Hill, NC: The National Implementation Research Network, University of North Carolina. 2008.

21. Fixsen DL, Naoom SF, Blase KA, Friedman RM, Wallace F. Implementation Research: A Synthesis of the Literature. Tampa, FL: University of South Florida, Louis de la Parte Florida Mental Health Institute, The National Implementation Research Network 2005.

22. Maybery D, Goodyear M, Reupert A, Grant A. Worker, workplace or families: What influences family focused practices in adult mental health? Journal of psychiatric and mental health nursing. 2016;23(3-4):163-71.

23. Rønnov LP, Mackmann B. Implementeringsforskning om forebyggelse- en baggrundsrapport. Denmark 2010.

24. Gabarron E, Dorronzoro E, Bradway M, Rivera-Romero O, Wynn R, Årsand E. Preferences and interests of diabetes social media users regarding a health-promotion intervention. Patient preference and adherence. 2018;12:2499.

25. Gabarron E, Wynn R. Use of social media for sexual health promotion: a scoping review. Global health action. 2016;9(1):32193.

26. Moullin JC, Sabater-Hernández D, Fernandez-Llimos F, Benrimoj SI. A systematic review of implementation frameworks of innovations in healthcare and resulting generic implementation framework. Health Research Policy and Systems. 2015;13(1):16.

27. Rogers EM. Diffusion of Innovations. New York: Free Press; 2003.

28. Greenhalgh T, Robert G, Macfarlane F, Bate P, Kyriakidou O. Diffusion of Innovations in Service Organizations: Systematic Review and Recommendations. Milbank Q. 2004;82.

29. Nilsen P, Ståhl C, Roback K, Cairney P. Never the twain shall meet?-a comparison of implementation science and policy implementation research. Implementation Science. 2013;8(1):1.

30. Winter SC. Implementation. In: Peters BG, Pierre J, editors. Handbook of Public Policy. Thousand Oaks: Sage; 2006. p. 151-66.

31. Durlak JA, DuPre EP. Implementation matters: a review of research on the influence of implementation on program outcomes and the factors affecting implementation. Am J Community Psychol. 2008;41(3-4):327-50.

32. Djulbegovic B, Guyatt GH, Ashcroft RE. Epistemologic Inquiries in Evidence-Based Medicine. 2009.

33. Sackett DL, Rosenberg WM, Gray JM, Haynes RB, Richardson WS. Evidence based medicine: what it is and what it isn't. British Medical Journal Publishing Group; 1996.

34. Fernandez A, Sturmberg J, Lukersmith S, Madden R, Torkfar G, Colagiuri R, et al. Evidence-based medicine: is it a bridge too far? Health Research Policy and Systems. 2015;13(1):66.

35. Tonelli MR. A late and shifting foundation: a commentary on Djulbegovic, B., Guyatt, G. H. & Ashcroft, R. E. (2009) Cancer Control, 16, 158-168. Journal of evaluation in clinical practice. 2009;15(6):907-9.

36. Tanenbaum SJ. Evidence-based practice as mental health policy: Three controversies and a caveat. Health Affairs. 2005;24(1):163-73.

37. Nissen T, Wynn R. The clinical case report: a review of its merits and limitations. BMC research notes. 2014;7(1):264.

48. Nissen T, Wynn R. The recent history of the clinical case report: a narrative review. JRSM short reports. 2012;3(12):1-5.

39. Greenhalgh T. Outside the box: Why are Cochrane reviews so boring? The British journal of general practice : the journal of the Royal College of General Practitioners. 2012;62(600):371.

40. Helsebiblioteket. Kunnskapsbasert praksis 2019. [Available from: https://www.helsebiblioteket.no/kunnskapsbasert-praksis

41. Palinkas LA, Soydan H. New horizons of translational research and research translation in social work. Research on Social Work Practice. 2012;22(1):85-92.

42. Girlanda F, Fiedler I, Becker T, Barbui C, Koesters M. The evidence–practice gap in specialist mental healthcare: systematic review and meta-analysis of guideline implementation studies. The British Journal of Psychiatry. 2017;210(1):24-30.

43. Eccles MP, Mittman BS. Welcome to Implementation Science. Implementation Science. 2006;1(1).

44. Nilsen P. Making sense of implementation theories, models and frameworks. Implementation Science. 2015;10(1):53.

45. Weiner B. A theory of organizational readiness for change. Implementation science : IS. 2009;4:67.

46. Bertram RM, Blase KA, Fixsen DL. Improving programs and outcomes implementation frameworks and organization change. Research on Social Work Practice. 2015;25(4):477-87.

47. Metz A, Bartley L. Active Implementation Frameworks for Program Success: How to Use Implementation Science to Improve Outcomes for Children. Zero to Three (J). 2012;32(4):11-8.

48. Ogden T, Beyers W, Ciairano S. Intervention and prevention with adolescents. J Adolesc. 2009;32(6):1343-5.

49. Michaelis B, Stegmaier R, Sonntag K. Shedding light on followers' innovation implementation behavior: The role of transformational leadership, commitment to change, and climate for initiative. Journal of Managerial Psychology. 2010;25(4):408-29.

50. Aarons GA, Sommerfeld DH. Leadership, innovation climate, and attitudes toward evidence-based practice during a statewide implementation. J Am Acad Child Adolesc Psychiatry. 2012;51(4):423-31.

51. Fixsen D, Blase K, Naoom S, Duda M. ImplementationDrivers Assessing Best Practices: Frank Porter Graham Child Development Institute, University of North Carolina, Chapel Hill 2015 [Available from: http://implementation.fpg.unc.edu/sites/implementation.fpg.unc.edu/files/NIRN-ImplementationDriversAssessingBestPractices.pdf

52. Ogden T, Fixsen DL. Implementation science. Zeitschrift für Psychologie. 2015;222:4–11.

53. Proctor EK, Landsverk J, Aarons G, Chambers D, Glisson C, Mittman B. Implementation research in mental health services: an emerging science with conceptual, methodological, and training challenges. Adm Policy Ment Health. 2009;36(1):24-34.

54. Fixsen D, Blase K, Metz A, Van Dyke M. Statewide implementation of evidence-based programs. Exceptional Children. 2013;79(2):213-30.
55. Aarons GA, Hurlburt M, Horwitz SM. Advancing a conceptual model of evidence-based practice implementation in public service sectors. Adm Policy Ment Health. 2011;38(1):4-23.
56. Damschroder LJ. Fostering implementation of health services research findings into practice: a consolidated framework for advancing implementation science. Implementation science : IS. 2009;4.
57. Novins DK, Green AE, Legha RK, Aarons GA. Dissemination and Implementation of Evidence-Based Practices for Child and Adolescent Mental Health: A Systematic Review. J Am Acad Child Adolesc Psychiatry. 2013;52(10):1009-25.e18.
58. Meyers DC, Durlak JA, Wandersman A. The quality implementation framework: a synthesis of critical steps in the implementation process. Am J Community Psychol. 2012;50(3-4):462-80.
59. Fixsen DL, Blase KA, Naoom SF, Wallace F. Core Implementation Components. Research on Social Work Practice. 2009;19(5):531-40.
60. Ogden T, Bjornebekk G, Kjobli J, Patras J, Christiansen T, Taraldsen K, et al. Measurement of implementation components ten years after a nationwide introduction of empirically supported programs--a pilot study. Implementation science : IS. 2012;7:49.
61. Hosman CM, van Doesum KT, van Santvoort F. Prevention of emotional problems and psychiatric risks in children of parents with a mental illness in the Netherlands: I. The scientific basis to a comprehensive approach. Australian e-Journal for the Advancement of Mental health. 2009;8(3):250-63.
62. Gladstone TR, Beardslee WR, O'Connor EE. The prevention of adolescent depression. Psychiatr Clin North Am. 2011;34(1):35-52.
63. Raitasalo K, Holmila M, Jääskeläinen M, Santalahti P. The effect of the severity of parental alcohol abuse on mental and behavioural disorders in children. European child & adolescent psychiatry. 2018:1-10.
64. Ferm U, Nilsson S, Nolbris MJ, Linnsand P, Jonsson A. Impact of a Parent's Neurodegenerative Disease and Care on the Daily Life of Children. Caregiving and Home Care: InTech; 2018.
65. Uccelli MM. The impact of multiple sclerosis on family members: a review of the literature. Neurodegenerative disease management. 2014;4(2):177-85.
66. Torvik FA, Rognmo K. Barn av foreldre med psykiske lidelser eller alkoholmisbruk. Oslo: Nasjonalt folkehelseinstitutt; 2011. Report No.: 4.
67. Ruud T, Maybery D, Reupert A, Weimand BM, Foster K, Grant A, et al. Adult mental health outpatients who have minor children: Prevalence of parents, referrals of their children and patient characteristics. Frontiers in Psychiatry. 2019;10:163.
68. Maybery D, Reupert AE. The number of parents who are patients attending adult psychiatric services. Current opinion in psychiatry. 2018;31(4):358-62.
69. Syse A, Aas GB, Loge JH. Children and young adults with parents with cancer: a population-based study. Clin Epidemiol. 2012;4:41-52.
70. Sieh D, Meijer A, Oort F, Visser-Meily J, Van der Leij D. Problem behavior in children of chronically ill parents: a meta-analysis. Clinical child and family psychology review. 2010;13(4):384-97.
71. Solantaus T, Paavonen EJ, Toikka S, Punamäki RL. Preventive interventions in families with parental depression: children's psychosocial symptoms and prosocial behaviour. European Child and Adolescent Psychiatry. 2010:1-10.

72. Beardslee WR, Wright EJ, Gladstone TRG, Forbes P. Long-term effects from a randomized trial of two public health preventive interventions for parental depression. Journal of Family Psychology. 2007;2007(21):703-13.

73. Wansink HJ, Janssens JM, Hoencamp E, Middelkoop BJ, Hosman CM. Effects of preventive family service coordination for parents with mental illnesses and their children, a RCT. Families, Systems, & Health. 2015;33(2):110.

74. Wansink HJ, Drost RM, Paulus AT, Ruwaard D, Hosman CM, Janssens JM, et al. Cost-effectiveness of preventive case management for parents with a mental illness: a randomized controlled trial from three economic perspectives. BMC health services research. 2016;16(1):228.

75. Senneseth M. Improving social network support for partners facing spousal cancer while caring for minors. A randomized controlled trial. 2017.

76. Sosial- og helsedepartementet. St.meld. nr. 25 Åpenhet og helhet (1996-97). Om psykiske lidelser og tjenestetilbudene. Oslo 1997.

77. Sosial- og helsedepartementet. NOU 1999: 2 Livshjelp. Behandling, pleie og omsorg for uhelbredelig syke og døende. Oslo: Statens forvaltningstjeneste. Statens trykning; 1999.

78. Aamodt LG, Aamodt I. Tiltak for barn med psykisk syke foreldre. Oslo: Regionsenteret for barn og unges psykiske helse, Helseregion Øst og Sør. ; 2005.

79. Solbakken B, Lauritzen G. Tilbud til barn av foreldre med rusmiddelproblemer. 2006.

80. Hansen MB, Jacobsen H. Sped- og småbarns i risiko - en kunnskapsstatus. Oslo: Regionsenter for barn og unges psykiske helse, Helseregion Øst og Sør; 2008.

81. Arbeids- og inkluderingsdepartementet. St.prp. nr. 1 (2006-2007) Handlingsplan mot fattigdom. Oslo2006.

82. Kallander EK, Brodahl L, Kibsgård H. Oversikt over Helse-og omsorgsdepartementets satsing for barn som pårørende (Overview of the Health and Care departement's commitment to children as next of kin) 2007-2010, Rapport IS-2011. Oslo: Directorate of Health 2012.

83. Nicholson J, Reupert A, Grant A, Lees R, Maybery D, Mordoch E, et al. The policy context and change for families living with parental mental illness. Parental psychiatric disorder: Distressed parents and their families. 2015:354-65.

84. Ruud T, Birkeland B, Faugli A, Hagen KA, Hellman A, Hilsen M, et al. Barn som pårørende -Resultater fra en multisenterstudie (Children as next of kin -Results from a multicenter study) IS-05022. Oslo 2015.

85. Mevik K, Trymbo (Skogøy) BE. Når foreldre er psykisk syke: Universitetsforlaget; 2002.

86. Skogøy BE, Stavnes K. Tirsdagstreffet, en familiegruppe for foreldre med psykiske vansker og deres barn. In: Storm B, Elisabet K, Marianne V, Gjesdah S, editors. Familier i motbakke: Fagbokforlaget; 2015.

87. Skogøy BE. Sluttrapport Barn som pårørende (Final report Children as Next of Kin). Bodø: Helse Nord RHF 2012.

88. Solantaus T, Puras D. Caring for Children of Parents with Mental Health Problems — A Venture into Historical and Cultural Processes in Europe. International Journal of Mental Health Promotion. 2010;12(4):27-36.

89. Becker S. Global Perspectives on Children's Unpaid Caregiving in the Family: Research and Policy on 'Young Carers' in the UK, Australia, the USA and Sub-Saharan Africa. Global Social Policy. 2007;7(1):23-50.

90. Falkov A, Goodyear M, Hosman CMH, Biebel K, Skogøy BE, Kowalenko N, et al. A systems approach to enhance global efforts to implement family-focused mental health interventions. Child & Youth Services. 2016;37(2):175-93.

91. Nationellt kompetenscentrum anhoriga. Om vårt uppdrag (About our mission - National competence centrum next of kin) Nka2014 [Available from: http://www.anhoriga.se/anhorigomraden/barn-som-anhoriga/om-oss/.

92. Toikka S, Solantaus T. The Effective Family Programme II: Clinicians' Experiences of Training in Promotive and Preventative Child Mental Health Methods. The International Journal of Mental Health Promotion. 2006;8(4):4-10.

93. Beardslee WR, Gladstone TRG, Wright EJ, Cooper AB. A Family-Based Approach to the Prevention of Depressive Symptoms in Children at Risk: Evidence of Parental and Child Change. Pediatrics. 2003;112(2):e119-e31.

94. Beardslee WR, Ayoub C, Avery MW, Watts CL, O'Carroll KL. Family Connections: an approach for strengthening early care systems in facing depression and adversity. The American journal of orthopsychiatry. 2010;80(4):482-95.

95. Söderblom B, Inkinen M, Söderblom B, Inkinen M. Skapa förståelse tillsammans: stödgrupper för barn och föräldrar med psykisk ohälsa: Mareld; 2009.

96. Socialstyrelsen. Stärkt stöd till barn som anhöriga Resultat och slutsatser från fem års utvecklingsarbete. 2016 [Available from: http://www.socialstyrelsen.se/Lists/Artikelkatalog/Attachments/20164/2016-4-43.pdf

97. Priebe G, Afzelius M, Skåne R. Barns Behov av Information, Råd och Stöd när en Förälder är Psykiskt Sjuk-Hur Efterföljs Lagen? Children's Need for Information, Advice and Support when a Parent has a Mental Illness-How is the Act Followed. 2015.

98. Convention on the rights of the child (1989).

99. Psykiatri Skåne och Region Hovedstadens Psykiatri. Barn som anhoriga inom psykiatrin - Kartlaggning av insatserna i Psykiatri Skåen och Region Hovedstadens Psykiatri. Sweden; 2015.

100. Socialt Udviklingscenter SUS og COWI/MUUSMANN. Bedre Tværfaglig Indsats. Danmark: Servicestyrelsen; 2008. Contract No.: ISBN 978-87-92031-57-0.

101. Sundhetsstyrelsen. Anbefalinger til sundhetspersoners møde med pårørende til alvorligt syge. København: Sundhetsstyrelsen 2012.

102. Lauritzen C, Reedtz C, Van Doesum KT, Martinussen M. Implementing new routines in adult mental health care to identify and support children of mentally ill parents. BMC health services research. 2014;14(1):58.

103. Goodyear M, Hill TL, Allchin B, McCormick F, Hine R, Cuff R, et al. Standards of practice for the adult mental health workforce: meeting the needs of families where a parent has a mental illness. Int J Ment Health Nurs. 2015;24(2):169-80.

104. Helse- og omsorgsdepartementet. Lov om helsepersonell av 2. juli 1999 nr. 64. Helsepersonelloven § 10 a Helsepersonells plikt til å bidra til å ivareta mindreårige barn som er pårørende til foreldre eller søsken. Oslo: Norwegian Ministry of Health and Care Services; 1999, tilføyd 2009, ikr. 2010 med tillegg 2017, ikr. 2018.

105. Helse- og omsorgsdepartementet. Prop. 76 L (2016-2017) Endringar i pasient- og brukarrettslova, helsepersonellova m.m. (styrking av rettsstillinga til barn ved yting av helse- og omsorgstenester m.m.). Oslo: Norwegian Ministry of Health and Care Services; 2017.

106. Helse- og omsorgsdepartementet. Lov om helsepersonell av 2. juli 1999 nr. 64. Helsepersonelloven § 10 b Helsepersonells plikt til å bidra til å ivareta mindreårige barn som er etterlatte etter foreldre eller søsken. Oslo: Norwegian Ministry of Health and Care Services; 1999, tilføyd 2017, ikr. 2018.

107. Helse- og omsorgsdepartementet. Lov om helsepersonell av 2. juli 1999 nr. 64. Helsepersonelloven §25 tredje ledd, Opplysninger til samarbeidende personell. Oslo: Norwegian Ministry of Health and Care Services; 1999, tilføyd 2009, ikr. 2010.

108. Helse- og omsorgsdepartementet. Lov om spesialisthelsetjeneste av 2.juli 1999. Spesialisthelsetjenesteloven. § 3-7a Barneansvarlig personell. Oslo: Norwegian Ministry of Health and Care Services; 1999, tilføyd 2009, ikr. 2010.
109. Ytterhus B. Hva er et «pårørende barn»? Barn mellom risiko, nytte og fremtid. I: Storm Mowatt Haugland, B., Ytterhus, B. og Dyregrov, K.(red.). Barn som pårørende. 2012;1.
110. Maybery D, Foster K, Goodyear M, Grant A, Tungpunkom P, Skogøy BE, et al. How can we make the psychiatric workforce more family focused? In: Reupert A, Maybery D, Nicholson J, Gopfert M, Seeman M, editors. Parental psychiatric disorder: Distressed parents and their families. 3rd Edition: Cambridge University Press; 2015.
111. Helsedirektoratet. Pårørendeveileder, Veileder om pårørende i Helse- og omsorgstjenester (Recommedations about next of kin in Health- and care services). Oslo: Directorate of Health; 2018.
112. BarnsBeste(Children's Bests Interests). Barn som pårørende – 1. Overordnet prosedyre (Children as next of kin- 1. Overall procedure -purpose and scope). Oslo: Helsebiblioteket; 2017.
113. Skogøy BE, Maybery D, Ruud T, Sørgaard K, Peck GC, Kufås E, et al. Differences in implementation of family focused practice in hospitals: a cross-sectional study. International Journal of Mental Health Systems. 2018;12(1):77.
114. Ploeg J, Davies B, Edwards N, Gifford W, Miller PE. Factors influencing best-practice guideline implementation: lessons learned from administrators, nursing staff, and project leaders. Worldviews Evid Based Nurs. 2007;4(4):210-9.
115. Grol R, Grimshaw J. From best evidence to best practice: effective implementation of change in patients' care. The Lancet. 2003;362(9391):1225-30.
116. Grimshaw JM, Thomas RE, MacLennan G, Fraser C, Ramsay CR, Vale L, et al. Effectiveness and efficiency of guideline dissemination and implementation strategies. Health Technol Assess. 2004;8(6):iii-iv, 1-72.
117. Grimshaw JM, Schunemann HJ, Burgers J, Cruz AA, Heffner J, Metersky M, et al. Disseminating and implementing guidelines: article 13 in Integrating and coordinating efforts in COPD guideline development. An official ATS/ERS workshop report. Proc Am Thorac Soc. 2012;9(5):298-303.
118. Baker R, Camosso-Stefinovic J, Gillies C, Shaw EJ, Cheater F, Flottorp S, et al. Tailored interventions to address determinants of practice. Cochrane Database Syst Rev. 2015(4):CD005470.
119. Grimshaw J, Eccles M, Thomas R, MacLennan G, Ramsay C, Fraser C, et al. Toward evidence-based quality improvement. Evidence (and its limitations) of the effectiveness of guideline dissemination and implementation strategies 1966-1998. Journal of general internal medicine. 2006;21 Suppl 2:S14-20.
120. Fretheim A, Flottorp SA, Oxman AD. Effekt av tiltak for implementering av kliniske retningslinjer. Rapport fra kunnskapssenteret. 2015.
121. Foster K, Maybery D, Reupert A, Gladstone B, Grant A, Ruud T, et al. Family-focused practice in mental health care: An integrative review. Child & Youth Services. 2016;37(2):129-55.
122. Nicholson J. Helping parents with mental illness. Behavioral Healthcare. 2007;27(5):32-4.
123. Liangas G, Falkov A. Use of structured clinical documentation to identify patients' parental concerns and their childrens' wellbeing. Community mental health journal. 2014;50(6):646-55.
124. Beardslee W, Lester P, Klosinski L, Saltzman W, Woodward K, Nash W, et al. Family-centered preventive intervention for military families: implications for implementation

science. Prevention science : the official journal of the Society for Prevention Research. 2011;12(4):339-48.

125. Hjern A, Arat A, Vinnerljung B. Att växa upp med föräldrar som har missbruksproblem eller psykisk sjukdom – hur ser livet ut i ung vuxen ålder? Projektet "Barn som anhöriga". . http://www.anhoriga.se: CHESS, Stockholms universitet/Karolinska Institutet i samarbete med Institutionen för socialt arbete vid Stockholms universitet.; 2014.

126. Rauch PK, Muriel AC. The importance of parenting concerns among patients with cancer. Critical reviews in oncology/hematology. 2004;49(1):37-42.

127. Reupert A, Maybery D, Cox M, Scott Stokes E. Place of family in recovery models for those with a mental illness. Int J Ment Health Nurs. 2015;24(6):495-506.

128. Maybery DJ, Reupert AE. Parental mental illness: a review of barriers and issues for working with families and children. Journal of Psychiatric and Mental Health Nursing. 2009.

129. Maybery D, Reupert A. Workforce capacity to respond to children whose parents have a mental illness. Australian and New Zealand Journal of Psychiatry. 2006;40(8):657-64.

130. Maybery D, Goodyear M, Reupert A. The family-focused mental health practice questionnaire. Arch Psychiatr Nurs. 2012;26(2):135-44.

131. Dunst CJ, Trivette CM, Hamby DW. Meta-analysis of family-centered helpgiving practices research. Mental retardation and developmental disabilities research reviews. 2007;13(4):370-8.

132. Razaz N, Nourian R, Marrie RA, Boyce WT, Tremlett H. Children and adolescents adjustment to parental multiple sclerosis: a systematic review. BMC Neurology. 2014;14(1):107.

133. Jones JB, Walsh S, Isaac C. The Relational Impact of Multiple Sclerosis: An Integrative Review of the Literature Using a Cognitive Analytic Framework. Journal of clinical psychology in medical settings. 2017;24(3-4):316-40.

134. Rowland E, Metcalfe A. Communicating inherited genetic risk between parent and child: a meta-thematic synthesis. International journal of nursing studies. 2013;50(6):870-80.

135. Douglas-Siegel JA, Ryan JP. The effect of recovery coaches for substance-involved mothers in child welfare: Impact on juvenile delinquency. Journal of substance abuse treatment. 2013;45(4):381-7.

136. Kumpfer KL, Whiteside HO, Greene JA, Allen KC. Effectiveness outcomes of four age versions of the Strengthening Families Program in statewide field sites. Group dynamics: Theory, research, and practice. 2010;14(3):211.

137. Gottfredson D, Kumpfer K, Polizzi-Fox D, Wilson D, Puryear V, Beatty P, et al. The Strengthening Washington DC Families Project: A randomized effectiveness trial of family-based prevention. Prevention Science. 2006;7(1):57-74.

138. Liddle HA, Santisteban DA, Levant RF, Bray JH. Family psychology: Science-based interventions: American Psychological Association; 2002.

139. Short JL, Roosa MW, Sandler IN, Ayers TS, Gensheimer LK, Braver SL, et al. Evaluation of a preventive intervention for a self-selected subpopulation of children. American Journal of Community Psychology. 1995;23(2):223-47.

140. Kufås E, Billehaug I, Faugli A, Weimand BM. Når lyset knapt slipper inn. 2017.

141. Kufås E, Faugli A, Weimand B. Barn og ungdom som har foreldre med rusmiddelproblemer: en kvalitativ levekårsstudie:«Når jeg ser han, får jeg sånn stikk i hjertet...». Oslo: Helsedirektoratet. 2015.

142. Lucksted A, McFarlane W, Downing D, Dixon L. Recent developments in family psychoeducation as an evidence-based practice. Journal of marital and family therapy. 2012;38(1):101-21.

143. Rogers EM. Diffusion of preventive innovations. Addictive behaviors. 2002;27(6):989-93.
144. Region Jönköpings län. Barndialogen 2018 [Available from: https://plus.rjl.se/infopage.jsf?nodeId=43233.
145. Whitham J, Eddy K, Maybery D, Reupert A, Fudge E. Use of a web-based delphi study in the development of a training resources for workers supporting families where parents experience mental illness. International Journal of Mental Health Promotion. 2009;11(2):42-54.
156. Maybery D, Goodyear M, O'Hanlon B, Cuff R, Reupert A. Profession differences in family focused practice in the adult mental health system. Fam Process. 2014;53(4):608-17.
147. Tungpunkom P, Maybery D, Reupert A, Kowalenko N, Foster K. Mental health professionals' family-focused practice with families with dependent children: a survey study. BMC health services research. 2017;17(1):818.
148. Romer G, Saha R, Haagen M, Pott M, Baldus C, Bergelt C. Lessons learned in the implementation of an innovative consultation and liaison service for children of cancer patients in various hospital settings. Psycho-Oncology. 2007;16(2):138-48.
149. Kühne F, Haagen M, Baldus C, Diareme S, Grether A, Schmitt F, et al. Implementation of preventive mental health services for children of physically ill parents: experiences in seven European countries and health care systems. General hospital psychiatry. 2013;35(2):147-53.
150. Gullbrå F, Smith-Sivertsen T, Rortveit G, Anderssen N, Hafting M. Ill and substance-abusing parents: how can the general practitioner help their children? A qualitative study. BMC family practice. 2016;17(1):154.
151. Grant A, Goodyear M, Maybery D, Reupert A. Differences Between Irish and Australian Psychiatric Nurses' Family-Focused Practice in Adult Mental Health Services. Arch Psychiatr Nurs. 2016;30(2):132-7.
152. Goodyear M, Maybery D, Reupert A, Allchin R, Fraser C, Fernbacher S, et al. Thinking families: A study of the characteristics of the workforce that delivers family-focussed practice. Int J Ment Health Nurs. 2016.
153. Grant A, Reupert A, Maybery D, Goodyear M. Predictors and enablers of mental health nurses' family-focused practice. International journal of mental health nursing. 2018.
154. Lauritzen C, Reedtz C, Van Doesum K, Martinussen M. Factors that may facilitate or hinder a family-focus in the treatment of parents with a mental illness. Journal of child and family studies. 2015;24(4):864-71.
155. Houlihan D, Sharek D, Higgins A. Supporting children whose parent has a mental health problem: an assessment of the education, knowledge, confidence and practices of registered psychiatric nurses in Ireland. J Psychiatr Ment Health Nurs. 2013;20(4):287-95.
156. Korhonen T, Vehviläinen-Julkunen K, Pietilä A-M. Do nurses working in adult psychiatry take into consideration the support network of families affected by parental mental disorder? Journal of Psychiatric and Mental Health Nursing. 2008;15(9):767-76.
157. Schmitt F, Manninen H, Santalahti P, Savonlahti E, Pyrhonen S, Romer G, et al. Children of Parents with Cancer: A Collaborative Project Between a Child Psychiatry Clinic and an Adult Oncology Clinic. Clinical Child Psychology and Psychiatry. 2007;12(3):421-36.
158. Semple C, McCaughan E. Family life when a parent is diagnosed with cancer: impact of a psychosocial intervention for young children. European journal of cancer care. 2013;22(2):219-31.

159. Aarons GA, Palinkas LA. Implementation of evidence-based practice in child welfare: Service provider perspectives. Administration and policy in mental health and mental health services research. 2007;34(4):411-9.
160. Birkeland B, Weimand BM, Ruud T, Høie MM, Vederhus J-K. Perceived quality of life in partners of patients undergoing treatment in somatic health, mental health, or substance use disorder units: a cross-sectional study. Health and quality of life outcomes. 2017;15(1):172.
161. Birkeland B, Foster K, Selbekk AS, Høie MM, Ruud T, Weimand B. The quality of life when a partner has substance use problems: a scoping review. Health and quality of life outcomes. 2018;16(1):219.
162. Birkeland B, Weimand B. En kvalitativ undersøkelse av levekår hos voksne pårørende til personer med rusmiddelproblemer. Oslo: Helsedirektoratet; 2015.
163. Kallander EK, Weimand B, Ruud T, Becker S, Van Roy B, Hanssen-Bauer K. Outcomes for children who care for a parent with a severe illness or substance abuse. Child & Youth Services. 2018:1-22.
164. Hagen KA, Hilsen M, Kallander EK, Ruud T. Health-related quality of life (HRQoL) in children of ill or substance abusing parents: examining factor structure and sub-group differences. Quality of Life Research. 2018:1-11.
165. Kallander EK, Weimand BM, Becker S, Van Roy B, Hanssen-Bauer K, Stavnes K, et al. Children with ill parents: extent and nature of caring activities. Scandinavian journal of caring sciences. 2018;32(2):793-804.
166. Tchernegovski P, Reupert A, Maybery D. "Let's Talk about Children": A pilot evaluation of an e-learning resource for mental health clinicians. Clinical Psychologist. 2015;19(1):49-58.
167. Brislin RW. Back-translation for cross-cultural research. Journal of cross-cultural psychology. 1970;1(3):185-216.
168. Nunnally JC. Psychometric theory. New York: McGraw-Hill. 1978.
169. DeVellis RF. Scale development: Theory and applications: Sage publications; 2016.
170. Field A. Discovering statistics using IBM SPSS statistics: Sage; 2013.
171. Damanpour F. Organizational innovation: a meta-analysis of effects of determinants and moderators. Academy of management journal. 1991;34(3):555-90.
172. Camisón-Zornoza C, Lapiedra-Alcamí R, Segarra-Ciprés M, Boronat-Navarro M. A meta-analysis of innovation and organizational size. Organization studies. 2004;25(3):331-61.
173. Zmud RW. Diffusion of modern software practices: influence of centralization and formalization. Management science. 1982;28(12):1421-31.
174. Houser SH, Johnson LA. Perceptions regarding electronic health record implementation among health information management professionals in Alabama: a statewide survey and analysis. Perspect Health Inf Manag. 2008;5:6.
175. Saldana L, Chamberlain P. Supporting implementation: the role of community development teams to build infrastructure. Am J Community Psychol. 2012;50(3-4):334-46.
176. Aarons G, Ehrhart M, Farahnak L, Sklar M. Aligning leadership across systems and organizations to develop a strategic climate for evidence-based practice implementation. Annu Rev Public Health. 2014;35:255 - 74.
177. Best A, Greenhalgh T, Lewis S, Saul JE, Carroll S, Bitz J. Large-System Transformation in Health Care: A Realist Review. The Milbank Quarterly. 2012.
178. Hysong SJ, Best RG, Pugh JA. Audit and feedback and clinical practice guideline adherence: making feedback actionable. Implementation science : IS. 2006;1:9.

179. Riebschleger J, Scheid J, Luz C, Mickus M, Liszewski C, Eaton M. How are the experiences and needs of families of individuals with mental illness reflected in medical education guidelines? Academic Psychiatry. 2008;32(2):119-26.

180. Egeland KM. Psychometric properties of the Norwegian version of the Evidence-Based Practice Attitude Scale (EBPAS): to measure implementation readiness. Health Res Policy Syst. 2016;14.

181. Aarons GA. Mental health provider attitudes toward adoption of evidence-based practice: The Evidence-Based Practice Attitude Scale (EBPAS). Mental Health Services Research. 2004;6.

182. van Sonsbeek MA, Hutschemaekers GJ, Veerman JW, Kleinjan M, Aarons GA, Tiemens BG. Psychometric properties of the Dutch version of the Evidence-Based Practice Attitude Scale (EBPAS). Health research policy and systems. 2015;13(1):69.

183. Lauritzen C, Reedtz C. Child responsible personnel in adult mental health services. Int J Ment Health Syst. 2016;10:64.

184. Biglan A, Ogden T. The Evolution of Evidence-based Practices. European journal of behavior analysis. 2008;9(1):81-95.

185. Proctor E. Outcomes for implementation research: conceptual distinctions, measurement challenges, and research agenda. Adm Policy Ment Health Ment Health Serv Res. 2011;38.

186. Afzelius M, Östman M, Råstam M, Priebe G. Parents in adult psychiatric care and their children: a call for more interagency collaboration with social services and child and adolescent psychiatry. Nordic journal of psychiatry. 2018;72(1):31-8.

187. Bowen S, Zwi AB. Pathways to "evidence-informed" policy and practice: a framework for action. PLoS medicine. 2005;2(7):e166.

188. Fixsen D, Scott V, Blase K, Naoom S, Wagar L. When evidence is not enough: the challenge of implementing fall prevention strategies. Journal of safety research. 2011;42(6):419-22.

189. Fixsen DL, Blase KA, Timbers GD, Wolf MM. In search of program implementation: 792 replications of the Teaching-Family Model. Offender rehabilitation in practice: Implementing and evaluating effective programs. 2001:149-66.

190. Balas E, Boren S. Managing clinical knowledge for health care improvements. . In: Bemmel J, McCray A, editors. Yearbook of Medical Informatics 2000: Patient-Centered Systems. Stuttgart, Germany: Schauttauer Verlagsgesellshaft mbH; 2000. p. 65-70.

191. Green LW. Making research relevant: if it is an evidence-based practice, where's the practice-based evidence? Family practice. 2008;25(suppl_1):i20-i4.

192. Bumbarger BK, Campbell EM. A state agency-university partnership for translational research and the dissemination of evidence-based prevention and intervention. Adm Policy Ment Health. 2012;39(4):268-77.

193. Aarons G, Ehrhart M, Farahnak L, Hurlburt M. Leadership and organizational change for implementation (LOCI): a randomized mixed method pilot study of a leadership and organization development intervention for evidence-based practice implementation. Implementation Science. 2015;10(1):11.

194. Socialstyrelsen. KVÅ 2019- Klassifikation av vårdåtgärder (KVÅ) [Available from: https://www.socialstyrelsen.se/klassificeringochkoder/atgardskoderkva

195. Levin KA. Study design III: Cross-sectional studies. Evidence-based dentistry. 2006;7(1):24.

196. Frazier PA, Tix AP, Barron KE. Testing moderator and mediator effects in counseling psychology research. Journal of counseling psychology. 2004;51(1):115.

197. Podsakoff PM, Organ DW. Self-reports in organizational research: Problems and prospects. Journal of management. 1986;12(4):531-44.

198. Drozd F, Vaskinn L, Bergsund HB, Haga SM, Slinning K, Bjørkli CA. The Implementation of Internet Interventions for Depression: A Scoping Review. Journal of Medical Internet Research. 2016;18(9).
199. Gjersing L, Caplehorn JR, Clausen T. Cross-cultural adaptation of research instruments: language, setting, time and statistical considerations. BMC medical research methodology. 2010;10(1):13.
200. Laletas S, Goodyear M, Reupert A. Parental Mental Illness: Cross-Sectional Analysis Of Family Focused Practice within the Early Childhood Sector. Journal of Child and Family Studies. 2018;27(5):1650-60.
201. Laake P, Benestad HB, Olsen BR. Research methodology in the medical and biological sciences: Academic Press; 2007.
202. Reedtz C, Lauritzen C, Stover YV, Freili JL, Rognmo K. Identification of Children of Parents With Mental Illness: A Necessity to Provide Relevant Support. Frontiers in psychiatry. 2018;9.
203. Aarons G, Horowitz J, Dlugosz L, Ehrhart M. The role of organizational processes in dissemination and implementation research. Dissemination and Implementation Research in Health: Translating Science to Practice. 2012.
204. Aarons GA. The organizational social context of mental health services and clinician attitudes toward evidence-based practice: a United States national study. Implementation science : IS. 2012;7.
205. Gagliardi AR, Brouwers MC, Palda VA, Lemieux-Charles L, Grimshaw JM. How can we improve guideline use? A conceptual framework of implementability. Implementation science : IS. 2011;6:26.
206. Lauritzen C, Reedtz C, Rognmo K, Nilsen MA, Walstad A. Identification and support for children of mentally ill parents: A five year follow-up study of adult mental health services. Frontiers in psychiatry. 2018;9:507.
207. Halsa A, Kufås E. De nye vaktbikkjene: Barneansvarlige i helseforetak (The new watchdogs: Child responsible personnel in Health Authorietes). In: Haugland BSM, Ytterhus B, Dyregrov K, editors. Barn som pårørende (Children as next of kin) Norway: Abstrakt forlag.; 2012.
208. Svalheim A-K, Steffenak AKM. Barneansvarliges rolle, knyttet til barn som er pårørende til foreldre med psykiske lidelser – en fenomenografisk studie (Child responsible personnel's role - a phenomenological study). Nordisk tidsskrift for helseforskning. 2016;12(1):2.
209. Korhonen T, Vehvilainen-Julkunen K, Pietila AM. Implementing child-focused family nursing into routine adult psychiatric practice: hindering factors evaluated by nurses. J Clin Nurs. 2008;17(4):499-508.
210. Niemelä M, Väisänen L, Marshall C, Hakko H, Räsänen S. The experiences of mental health professionals using structured family-centered interventions to support children of cancer patients. Cancer nursing. 2010;33(6):E18-E27.
211. Tchernegovski P, Maybery DJ, Reupert AE. Legislative policy to support children of parents with a mental illness: revolution or evolution? International Journal of Mental Health Promotion. 2017;19(1):1-13.
212. Meulman J, Heiser W. SPSS Inc. SPPS categories. 2008;17.
213. Pinkerton, J., Dolan, P & Canavan, J.Family Support in Ireland A paper for the Department of Health & Children. Dublin: Stationery Office. 2004.
214. Maybery D, Goodyear M, Reupert A. Family focused mental health practice questionnaire. 2010. [Available from: http://www.copmi.net.au/images/pdf/Research/workforce-questionnaire-and-reliability-information.pdf

215.Devaney, C., Gillen, A., Landy, F., & Canavan, J. What works in family support? 2013.

Paper 1

RESEARCH ARTICLE　　　　　　　　　　　　　　　　　　**Open Access**

Hospitals implementing changes in law to protect children of ill parents: a cross-sectional study

Bjørg Eva Skogøy[1,2*] , Knut Sørgaard[1,2], Darryl Maybery[3], Torleif Ruud[4,5], Kristin Stavnes[1,5], Elin Kufås[6], Gro Christensen Peck[7], Eivind Thorsen[8], Jonas Christoffer Lindstrøm[4,5,11] and Terje Ogden[9,10]

Abstract

Background: Norway is one of the first countries to require all health professionals to play a part in prevention for children of parents with all kinds of illnesses (mental illness, drug addiction, or severe physical illness or injury) in order to mitigate their increased risk of psychosocial problems. Hospitals are required to have child responsible personnel (CRP) to promote and coordinate support given by health professionals to patients who are parents and to their children.

Methods: This study examined the extent to which the new law had been implemented as intended in Norwegian hospitals, using Fixsen's Active Implementation Framework. A stratified random sample of managers and child responsible personnel ($n = 167$) from five Hospitals filled in an adapted version of the Implementation Components Questionnaire (ICQ) about the implementation of policy changes. Additional information was collected from 21 hospital coordinators (H-CRP) from 16 other hospitals.

Results: Significant differences were found between the five hospitals, with lowest score from the smallest hopitals. Additional analysis, comparing the 21 hospitals, as reported by the H-CRP, suggests a clear pattern of smaller hospitals having less innovative resources to implement the policy changes. Leadership, resources and system intervention (strategies to work with other systems) were key predictors of a more successful implementation process.

Conclusions: Legal changes are helpful, but quality improvements are needed to secure equal chances of protection and support for children of ill parents.

Trial registration: The study is approved by the Regional Committee on Medical and Health Research Etics South-East (reg.no. 2012/1176) and by the Privacy Ombudsmann.

Keywords: Hospital, Implementation, Law, Policy, Prevention, Child responsible personnel, Children of ill parents, Children as next of kin, Parental illness

Background

There is wide international variation in legislation, policy and practice regarding children with mentally ill parents, ranging from complete lack of provision, stigma and loss of parental rights in some countries, to regional or nationwide preventive child and family policy and legislation in others [1–6]. A considerable body of research has focused on efforts to reduce the transgenerational risk of psychosocial problems among children of ill parents. This includes developing programmes to support children and families where parents are suffering from mental illness [7–10], substance abuse problems [11, 12] or physically illness [13, 14]. Early intervention and prevention have been clearly shown to reduce risks for children. A meta-analysis of 13 individual, group and family interventions found a 40% reduction in the risk of children developing the same mental illness as their parents, by increasing parenting skills and increasing

* Correspondence: Bjorg.eva.skogoy@nlsh.no
[1]Nordland Hospital Trust, Kløveråsveien 1, 8092 Bodø, Norway
[2]The Faculty of Health Sciences, UiT, The Arctic University of Norway, Box 6050, 9037 Tromsø, Norway
Full list of author information is available at the end of the article

Skogøy *et al. BMC Health Services Research* (2018) 18:609

Page 2 of 11

knowledge and strengthening resilience factors among adolescents [15].

In Norway, a new law passed in 2010 requires all health professionals to "help safeguard the need for information and necessary support that minor children (0–18 years) of patients with mental illnesses, drug addiction or severe physical illness or injury may have due to parent's condition" (Children's Best Interests' translation) [16, 17]. Health institutions must comply with the law by having child responsible personnel (CRP) promote and coordinate support given by health professionals to patients in their parental role, and their children.

The new regulations require all health professionals to; a) register dependent children in the patient's health record, b) have conversations with the parent about children's need for information and support, c) offer help in family information sharing and conversations with children, d) ensure that children can visit parents at the hospital, e) assess children's and the family's needs, and (f) gain parents consent to cooperate with other services in establishing necessary support [16]. This is in line with United Nations Convention on the Rights of the Child [18] stating that children have a right to both participation and protection. Health institutions are required to make plans for education and supervision and develop clinical guidelines and procedures to ensure compliance with the new regulations [17], as well as to establish the required CRPs to support and systematize the work [16].

Numerous barriers to implementing family focused practices have been identified by previous research. These include differences across countries, organizational factors such as lack of resources and inadequate procedures, professional background, cultural and educational factors, such as health professionals' attitudes, lack of expertise and lack of cooperation, and the availability of families [19–24]. More generally, implementation of best practice guidelines is found to face barriers at individual practitioner level, social context, and organizational and environmental context [25] and it is recommended to tailor implementation strategies to different groups of stakeholders [26].

Leaders play a critical role in creating organizational readiness for change [27], and in developing strategies to support implementation of innovations. Transformational leadership, with leaders who can inspire and motivate the employees, is found to predict implementation of innovative practice [28] and is associated with an innovation climate and more positive staff attitudes to adopt evidence-based practice [29].

This study sought to examine the impact of the mandatory changes in law upon Norwegian health services, and formed part of a large multicentre study, the Children of Ill Parents (CHIP)-study [30] of patients, their partners, and children's satisfaction with the implementation of the changes in law. Norway is one of the first countries (together with Finland, Sweden and the UK) to require all health professionals to play a part in prevention for children of parents with all kinds of illnesses. This study offers unique insight into the process of a nationwide introduction of new, family focused legislation.
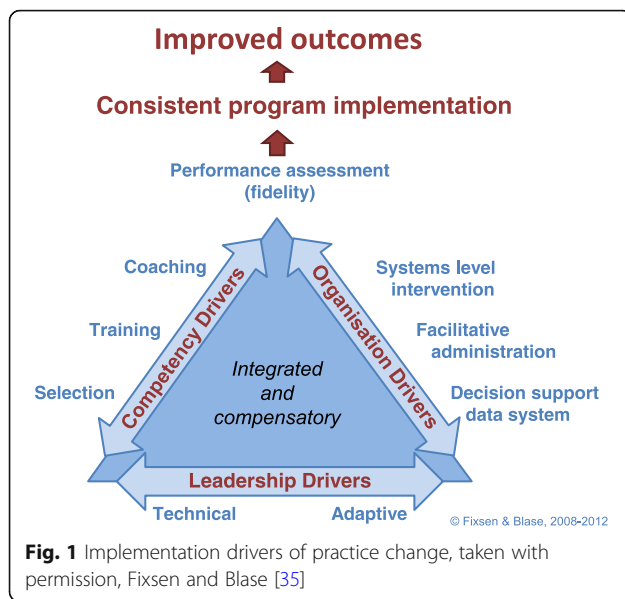
The framework used in this study

The Active Implementation Framework (AIF) employed here is based on Fixsen's review and synthesis of the implementation literature [31], which has been further refined by the National Implementation Research Network (NIRN) [32]. The AIF is measured by the Implementation Components Questionnaire (ICQ) [33]. Implementation is characterized by active and planned efforts to mainstream an innovation within an organization, while dissemination is active and planned efforts to persuade target groups to adopt an innovation [34]. Figure 1 below summarises the drivers shown to be important in the implementation process [35]. These include competency related drivers such as; selection of personnel, training, coaching and performance assessment. Organizational drivers such as facilitative administration must be established to support the new practice development, and decision support data systems need to be changed or improved to be able to collect data on quality improvement. Systems level interventions are strategies to work with other systems or organizations to get support or cooperation, to secure financial and human resources, and to get public support. Finally, a critical driver is leadership. Both technical and adaptive leadership strategies are needed to succeed with implementation and achieve sustainable outcomes [36, 37].

To achieve high quality implementation, researchers recommend establishing specialised implementation teams [37, 38] to oversee the implementation process, establish feedback loops, assess whether the intervention is being used as planned, and promote sustainability.

The Norwegian strategy for dissemination and implementation

Norway has a public health system, with four regional health authorities (RHF), responsible for ensuring specialist health services are provided to the population in their area. These services are provided through health trusts (HF) and comprise hospitals with inpatient and outpatient services. Private hospitals have agreements with the RHF.

The Ministry of Health and Care Services submits annual requirements to the regional health authorities based on government policy. To support new practice

Skogøy *et al. BMC Health Services Research* (2018) 18:609

Page 3 of 11

Fig. 1 Implementation drivers of practice change, taken with permission, Fixsen and Blase [35]

regarding children, a National Competency Network, named "Children's Best Interests", was established in 2007 to collect, systematize, and communicate knowledge about children as next of kin/children of ill parents [39].

The Norwegian efforts to secure dissemination of the legal changes in specialist health services comprised; a) a circular [17] b) a commissioning document [40] c) a small budget in 2009 allocated to projects in the regional health authorities [41] d) conferences in all four health regions in 2009–2010, e) training for CRPs and leaders at seven hospitals piloted by Children's Best Interests, as well as web-based learning resources [39] and learning networks.

Though a National Competency Network was established, implementation was not included in its remit, and their role was more to systematize and disseminate knowledge, instead of being a national implementation team. Initially, there was a lack of implementation support from both the Ministry of Health and Care Services [42] and regional health authorities, with no stable funding of coordinators and infrastructure needed in the hospitals [41, 43]. Based on recommendations from the implementation research [37, 38], we hypothesized that there would be differences in how the law was being implemented.

Aims

The overarching aim of this study was to examine to what extent the law was being implemented as intended. The first objective was to analyse and compare differences in implementation of changes in law between Norwegian hospitals, based on assessments by managers/leaders and 'child responsible personnel'. The second was to identify predictors of successful implementation.

Method

Design and context

The five hospitals that were the focus of this exploratory and cross-sectional multicentre study serve 34% of the total Norwegian population of 5.2 million people. To get maximum diversity we included five hospitals of different sizes, from three regions across Norway, including both rural and urban areas. The smallest hospital served 136,000 (H1) and the largest (H5) served 493,000 inhabitants. The three remaining hospital served H2: 290,000, H3: 358,000, and H4: 480,000. Hospital 1 is a district hospital providing health services to a large rural area and Hospital 3 and 5 are university hospitals.

Participants

The 167 of the 188 participants in this study were recruited from a stratified, randomly selected sample of leaders/managers (L) (technical directors, clinical heads of departments, unit managers) (*n* = 52), child responsible personnel (CRP) (*n* = 110) and hospital coordinators (H-CRP) (*n* = 5) from the above five hospitals. The response rates were 100% for the H-CRPs, 72% for CRPs and 68% for managers. Additional information was collected from H-CRPs (*n* = 21) from 16 other hospitals across Norway, of them two were private hospitals.

Child responsible personnel (1–2 at every unit) are ordinary health professionals selected by their unit manager to promote and coordinate activity in the units. Hospital coordinators (usually 1–2 at the hospital) systematize hospitals total work, or coordinate activity in the departments, e.g. establish procedures, training and supervision. Most H-CRPs hold this role part time (20–50%) as part of another position, with only one H-CRP holding a 100% position.

Of 52 participating leaders 36 were women (69%), with a mean age of 49 years (*SD* = 10). The mean time since they completed education was 21 years for leaders (*SD* = 10), with a mean time in current position of 5 years. Most leaders were nurses (62%), psychologists (17%), social workers (12%), physicians (8%), or others (2%).

Among the 110 child responsible persons (CRP) 97 were women (88%), with a mean age of 47 years (*SD* = 10). Their mean time since completing education was 18 years (*SD* = 10), with a mean duration of 7 years in post. Most of the CRPs were nurses (45%), social workers (34%), psychologists (10%) nurse assistants (7.3%), or staff with other types of higher education (4.5%), e.g. masters, family therapist. The five hospital coordinators (H-CRP) were women, with a mean age of 51 years (*SD* = 4), 24 years (*SD* = 10) since completing education, and on average 3 years in the post (*SD* = 3). Two coordinators were nurses, one a social worker, and two had other types of training. From the 16 additional

hospitals, the 21 hospital coordinators (H-CRP) were women, with a mean age of 51 years (*SD* = 9), 24 years (*SD* = 10) post education, and in the post for 6 years (*SD* = 4). Most were nurses (52%), social workers (24%), and other types training (24%). Many of the H-CRPs were highly experienced, and some had acted as champions for children of ill parents for 10–15 years. In sum, the three participants groups mainly consisted of persons that are of the same gender, age, profession and experience, but had different roles in the hospitals.

Data collection

The data were collected by the first author from June 2013 to March 2014, with the participants filling in a web-based version of the ICQ [33] during a telephone interview. The interviewer was available for additional questions during the completion of the questionnaire.

Measure

The Implementation Components Questionnaire (ICQ) was first adapted in Norway [33] from an earlier version of the Measures of Implementation Components of the National Implementation Research Network Frameworks by Fixsen et al. [44] and has been shown to have good psychometric validity [33]. The 89-item questionnaire was slightly modified, or reworded, e.g. *PMTO/ MST therapist* was replaced by *child responsible personnel*, and *program* was replaced by *changes in law*. Seven questions were added, especially to capture work to collaborate with other systems.

The present study has nine subscales or 'implementation drivers', see Fig. 1 and Appendix. The items had five choices of response: *no = 0, sometimes = 1*, and *yes = 2*, in addition to *not relevant* and *I don't know*, treated as missing. The Cronbach's alphas of the subscales ranged between 0.74 and 0.93 (Selection 0.74, Training 0.80, Supervision 0.88, Performance 0.86, Data systems 0.80, Administrative support 0.78, Systems Intervention 0.88, Resources 0.81 and Leadership 0.93).

The respondents were also asked four questions about their satisfaction with the implementation process, which were used to create an implementation satisfaction scale; *1) All in all, it is my experience that the work for children as next of kin has been difficult in my unit; 2) The work for children as next of kin is well integrated into my unit; 3) Overall, I experience success in promoting/advocating the interests of children as next of kin; 4) I am satisfied with how the implementation of the legislative amendments has been implemented into my unit).* These were rated on a 5-point Likert scale, *strongly disagree* was scored as 1, *disagree* = 2, *undecided* = 3, *agree* = 4, *strongly agree* = 5. The Cronbach's alpha of the implementation satisfaction scale was 0.88.

The participants were asked a question of whether their unit had made changes to better support children visiting their parents, like a better play area or family room.

During the recruitment process for the larger part of the CHIP-study, 594 registration forms were collected, with anonymous data of the number of patients children available for recruitment, controlling whether children were documented in patients' health records, as required. These data were used as an outcome measure in the present study, to examine if there was any association between the implementation scores and health professionals' compliance to register dependent children in parent's health record according to the new regulations.

Analysis

The statistical analyses were performed with SPSS (version 21). The 96-item adapted version of the ICQ measure was first analysed by scale reliability analysis, suggesting seven items to be deleted before the component analysis. The measure was tested for internal consistency and in exploratory component analyses using Categorical Principal Component analysis (CATPCA) [45]. The new 89-item measure used in this study, had satisfactory psychometric qualities compared to the earlier 89-item version, used by Ogden [33]. However, the 16 items of the systems level interventions scale were best described by a two-dimensional solution, a) System Intervention, b) Resources. The first dimension focuses on the type of collaboration with the outer context *(e.g. work to influence external systems so that they have more understanding of the change of legislation; regional authorities and partners like regional health authorities, regional centres of expertise, county councils, universities and politicians in the region).* The second dimension focuses on whether the resources are sufficient *(e.g. the organisation has sufficient time and capacity to lead the work).*

Descriptive statistics were used to examine the scores of the implementation drivers and the implementation satisfaction scale (Table 1). Mean scores for the five hospitals and the additional group of H-CRPs, in addition to differences between types of personnel were calculated, and differences were examined using ANOVA (Tables 2, and 3) and post hoc *p*-values were corrected with Bonferroni. In analysis including the additional hospitals, differences (ANOVA) between smaller, medium and larger hospitals across Norway, reported by the hospital coordinators, were also examined. Finally, correlation between implementation drivers and satisfaction with the implementation process were calculated (Table 4) before multiple regression analyses were performed to examine predictors of successful implementation (Table 5).

The hospitals also were compared on law requirements. The number of child responsible personnel per hospital was calculated. ANOVA was used to calculate differences

Skogøy *et al. BMC Health Services Research* (2018) 18:609

Page 5 of 11

Table 1 Descriptive Statistics for Implementation Drivers and Implementation Satisfaction (*N* = 188)

	Items	Number	*M*	*SD*	Skewness		Kurtosis	
					Statistic	*SE*	Statistic	*SE*
Selection	9	188	0.60	.37	.95	.18	−.91	.35
Training	9	187	0.95	.52	.01	.18	−.56	.35
Supervision	13	183	0.96	.55	−.30	.18	−.91	.36
Performance	11	184	0.55	.54	1.17	.18	.67	.36
Data system	8	184	0.98	.58	.15	.18	−.91	.36
Administration	8	185	1.14	.59	−.23	.18	−.92	.36
SystemsInterv.	9	185	0.38	.48	1.56	.18	1.90	.36
Resources	8	184	1.06	.56	−.05	.18	−.90	.36
Leadership	14	188	1.07	.55	−.19	.18	−1.02	.35
Total Implementation	89	188	0.86	.33	−.02	.18	−.76	.35
Implementation Satisfaction	4	188	3.54	.97	−.28	.18	−.68	.35

Implementation Drivers, range 0–2. Implementation Satisfaction, range 1–5

between hospitals establishing play areas and family rooms. The registration forms, with the number of patient's children found at the recruitment days, compared to documentation of patient's children (in the patient's electronic health record) were explored, and descriptive statistics were used to calculate differences between hospitals.

Attrition and missing values

The aim was to recruit over 70% of both leaders and CRPs for this study. Though the total response rate was 73%, it was more difficult to recruit leaders (68%), than H-CRPs (100%) and CRPs (72%). However, technical directors from all five hospitals participated, as did 9 to 12 other managers from each of the hospitals.

The dataset had very few missing values (10 values). These were replaced by mean values after found missing at random (MCAR, *p* = 0.925). A few items had high scores for "*don't know*", but low scores on "*not*

applicable". In the CATPCA analysis, these were treated as missing values, and imputed as an extra category, after found missing completely at random (MCAR, *p* = 0. 998).

Results
Descriptive statistics
The mean total implementation score for all respondents was at a medium level, see Table 1. The implementation satisfaction scale had total mean scores slightly over medium level. The skewness and kurtosis were in a normal range [46].

Differences between the hospitals
ANOVA showed significant differences between the five hospitals on the total implementation score $F(5,182)$ = 3.65, *p* = .004, and on three subscales; supervision $F(5,177)$ = 7.61, *p* < .001, decision data support systems

Table 2 ANOVA, Mean differences between Hospitals on Implementation Drivers and Implementation Satisfaction (*N* = 188)

	H1 (*n* = 35)		H2 (*n* = 31)		H3 (*n* = 33)		H4 (*n* = 36)		H5 (*n* = 31)		A (*n* = 21)		*p*
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	
Selection	0.52	.39	0.60	.44	0.58	.30	0.66	.37	0.63	.41	0.63	0.27	.672
Training	0.87	.59	1.07	.57	1.12	.46	0.95	.48	0.78	.58	0.85	0.33	.105
Supervision	0.54	.51	1.15	.50	1.14	.49	0.90	.55	1.17	.49	0.91	0.44	.000*
Performance	0.39	.56	0.52	.60	0.69	.50	0.60	.54	0.69	.57	0.38	0.31	.084
Datasystem	0.71	.62	1.20	.56	1.16	.48	0.89	.63	1.20	.54	0.67	0.32	.000*
Administration	0.97	.63	1.23	.71	1.24	.47	1.08	.65	1.24	.55	1.09	0.34	.317
SystemsInterv.	0.32	.42	0.20	.44	0.36	.47	0.34	.35	0.30	.45	0.94	0.52	.000*
Resources	0.91	.62	1.16	.49	1.14	.57	1.12	.49	1.12	.60	0.81	0.51	.091
Leadership	0.78	.52	1.14	.48	1.24	.52	1.09	.49	1.23	.60	0.91	0.56	.002*
Total Implementation	0.67	.34	0.91	.29	0.96	.29	0.85	.32	0.93	.37	0.80	0.29	.004*
Implementation Satisfaction	3.25	.97	3.63	.99	3.58	.91	3.53	.93	3.69	1.13	3.64	.82	.492

A Additional Hospitals (1–2 Hospital coordinators from 16 other hospitals). Implementation Drivers, range 0–2, Implementation Satisfaction, range 1–5, * *p* < .05

Skogøy *et al. BMC Health Services Research* (2018) 18:609

Page 6 of 11

Table 3 ANOVA, Mean differences between Types of Personnel on Implementation Drivers and Implementation Satisfaction ($N = 167$)

	L ($n = 52$)		CRP ($n = 110$)		H-CRP($n = 5$)		df	F	p	Post Hoc
	M	SD	M	SD	M	SD				
Selection	1.21	.44	.85	.56	.80	.41	2.163	8.649	.000*	L > CRP
Training	.72	.44	.54	.34	.42	.34	2.164	4.552	.012*	L > CRP
Supervision	1.17	.49	.87	.57	1.11	.37	2.159	5.116	.007*	L > CRP
Performance	.72	.60	.52	.54	.32	.20	2.160	2.632	.075	
Datasystem	1.22	.59	.94	.58	.86	.68	2.160	4.146	.018*	L > CRP
Administration	1.15	.59	1.15	.63	1.10	.42	2.161	.018	.982	
SystemsInterv.	.25	.38	.28	.36	1.44	.60	2.161	23.867	.000*	H-CRP > L H-CRP > CRP
Resources	1.19	.50	1.05	.59	.93	.54	2.160	1.283	.280	
Leadership	1.29	.44	.99	.56	1.25	.70	2.164	5.651	.004*	L > CRP
Total Implementation	.99	.28	.80	.34	.91	.38	2.164	6.275	.002*	L > CRP
Implementation Satisfaction	3.73	.87	3.44	1.03	3.55	1.08	2.163	1.529	.220	

L Leaders, *CRP* Child Responsible Personnel, *H-CRP* Hospital coordinators. Implementation Drivers, range 0–2, Implementation Satisfaction, range 1–5, * $p < .05$

$F(5,178) = 5.88$, $p < .001$, and leadership $F(5,182) = 3.89$, $p = .002$, see Table 2.

On the total implementation score, post hoc analysis showed that H1 scored significantly lower than three hospitals; H2 ($p = .038$), H3 ($p = .004$), H5 ($p = .023$). On the supervision driver H1 scored significantly lower than *all* other hospitals, with significantly lower scores on the decision data support systems than H2, H3 and H5, and significantly lower scores on leadership than H3 and H4.

Additional information was collected from the 21 hospital coordinators (H-CRP) from 16 other hospitals, in order to support findings from the five hospitals. As expected, the hospital coordinators scored higher on systems intervention $F (5,179) = 8.31$, $p < .001$, than the larger group of personnel from the five hospitals, which reflects the hospital coordinator's special role. Comparing only the H-CRP at the five study hospitals with the H-CRP in the additional group, there were no significant differences on systems intervention or on the total implementation score.

In analyses including the additional hospitals, we compared answers from the H-CRP ($n = 26$) from smaller sized hospitals (<3000 FTEs, $n = 8$), medium sized hospitals (3–5000 FTEs, $n = 9$), larger sized hospitals (>5000 FTEs, $n = 9$). The group of smaller sized hospitals scored significantly lower on the total implementation scale $F(2,23) = 7.264$, $p = .004$, and on the subscales; leadership $F(2,23) = 6.569$, $p = .006$, resources $F(2,23) = 3.947$, $p = .034$ and supervision $F(2,23)$, $p = .004$.

Differences between types of personnel on implementation drivers and implementation satisfaction
ANOVA showed significant differences between types of personnel on the total implementation score ($p = .002$), and on six subscales, see Table 3, with post Hoc analysis showing that leaders/managers (L) scored significantly

Table 4 Pearson's bivariate Correlations between the Implementation Drivers and Implementation Satisfaction ($N = 188$)

	1.	2.	3.	4.	5.	6.	7.	8.	9.
1. Selection	1								
2. Training	.43**	1							
3. Supervision	.24**	.37**	1						
4. Performance	.35**	.37**	.46**	1					
5. Data system	.28**	.43**	.47**	.47**	1				
6. Administration	.26**	.35**	.33**	.36**	.52**	1			
7. SystemsInterv.	.06	.03	.08	−.04	−.11	.04	1		
8. Resources	.28**	.40**	. 37**	.26**	.40**	.41**	−.02	1	
9. Leadership	.29**	.48**	.45**	.35**	.51**	.51**	.12	.61**	1
DV.Implementation satisfaction	.28**	.36**	.38**	.23**	.35**	.37**	.22**	.54**	.62**

DV dependent variable
**Correlation is significant at the 0.01 level

Skogøy et al. BMC Health Services Research (2018) 18:609

Page 7 of 11

Table 5 Regression analysis of Implementation Drivers predicting Implementation Satisfaction ($N = 188$)

	B	$SE\ B$	β	t	p
1(Constant)	2.01	.16		12.53	.000
Selection	.28	.18	.11	1.53	.129
Training	−.11	.14	−.06	−.76	.447
Supervision	.18	.13	.10	1.34	.182
Performance	−.17	.13	−.09	−1.28	.202
Data systems	.03	.13	.02	.22	.830
Administration	.13	.13	.08	1.02	.311
SystemsInterv.	.27	.12	.14	2.32	.022*
Resources	.42	.13	.24	3.14	.002**
Leadership	.67	.15	.38	4.34	.000***

R squared = 0.461, * $p < .05$, ** $p < .01$, *** $p < .001$

higher than child responsible personnel (CRP) on the total implementation score, and on the five subscales; selection ($p = .012$), training ($p < .001$), supervision ($p = .007$), data systems ($p = .018$) and leadership ($p = .001$). An important finding was that hospital coordinators (H-CRP) represent a middle score, as there were no significant differences between H-CRP and L, or between H-CRP and CRP on the total score or the subscales, except for the systems intervention, where H-CRP scored significantly higher than both L and CRP ($p < .001$). There was no significant difference on implementation satisfaction.

The relationship between implementation satisfaction and implementation drivers

Initially, correlations were calculated between the implementation drivers and the satisfaction variables. This was followed by multiple regression (enter) analysis with the implementation satisfaction as dependent variable and the nine implementation subscales as predictor (independent) variables, see Tables 4 and 5.

Implementation satisfaction was significantly positively associated with all implementation subscales, see Table 4, with the strongest association to leadership ($r = 0.62$) and resources ($r = 0.54$). A multiple linear regression analysis indicated an equation $F\ (9,168) = 15.114$, $p < .001$ with R^2 of .461, see Table 5. Significant predictors of satisfaction with the implementation process were leadership, resources and systems intervention.

Comparing hospitals on law requirements

As required, all five hospitals had established plans for education, and developed clinical guidelines and procedures to ensure compliance with the new regulations.

The hospitals had appointed child responsible personnel to support and systematise the work. There were from 21 to 45 CRPs per 100,000 inhabitants, with

the two largest hospitals having a smaller number of CRPs per 100,000 (H1: 39, H2: 45, H3: 41, H4: 21, H5: 24). Four of the hospitals had established a hospital coordinator (H-CRP), while Hospital 1 had coordinators at a lower level.

The hospitals had made some changes (e.g play area or family room) to better support children visiting parents at the hospital, with sum score ($M = 1.47$, $SD = .70$, range 0–2). There were no significant differences between the hospitals.

All hospitals had made changes in the data systems to register dependent children. In somatic clinics 51% of children of patients were registered (306 of 595 children), in mental health clinics 61% (882 of 1438 children) and in substance abuse clinics 71% (352 of 496 children). Differences were found in how well children were registered in patients health record, ranging from H1: 51%, H2: 52%, H3: 77%, H4: 50%, to H5: 82%, with the highest registration rate at the two university hospitals.

Discussion

The overarching aim of this study was to examine to what extent changes in law was implemented as intended. Overall, the five hospitals had implemented change at a medium level with a similar level of satisfaction. When the five hospitals were compared, there were significant differences on the total implementation score, and on three subscales, with the smallest hospital scoring lowest. There were significant differences between types of personnel on the total implementation score, and on six subscales, with child responsible personnel scoring significantly lower than leaders, suggesting that leaders underestimate the implementation challenges. Factors associated with implementation satisfaction were leadership, resources and systems intervention.

Differences between the hospitals

Hospital 1 – the smallest hospital in the most rural district - scored lowest on the total implementation score and on three subscales; supervision, decision support data system and leadership. This finding was supported in additional analyses in which smaller, medium and larger hospitals, as reported by the hospital coordinators across Norway were compared. The outcome suggests a clear pattern of higher barriers when smaller hospitals as compared to medium and larger hospitals are implementing the changes in law. Meta-analyses of innovation adoption have found that organisational size can be an important factor [47]. Larger organisations might have better structural resources, such as role specialisation and existing knowledge and skills for innovative practice [48] that perhaps leads to greater changes of practice.

Skogøy *et al. BMC Health Services Research* (2018) 18:609

Page 8 of 11

However, the hospital with best results was a medium sized university hospital. This hospital selected the manager at a research unit to be hospital coordinator, with the top management as a steering group for the implementation process. The second highest scoring hospital was the only hospital that had employed a new full-time hospital coordinator. This could indicate a better understanding of the challenges of implementation, and the importance of leadership support. The type of person employed to induce change potentially has important implications for future practice change strategies.

Regarding the poorest performing hospital, it should be noted that a previous project (from 2009 to 2011) was not sustained, and the recent funding from government (2013) [49] was not used to establish a hospital coordinator.

In summary, the lack of a "practice change coordinator" in the hospital and lack of leadership support seems to be negatively related to establishing supervision, where Hospital 1 scored significantly lower than the other hospitals. Supervision is found to be important to achieve the skills needed to change own practice, as training alone does not give the necessary changes [31], and recruitment and supervision components can be related to therapists satisfaction with the implementation progress [33].

Differences between types of personnel

Child responsible personnel scored significantly lower than leaders on the total implementation score, and on the five subscales; recruitment, training, supervision, decision data support systems and leadership. This indicates that managers might underestimate competency challenges among child responsible personnel, and might overestimate the hospitals leadership support. An important finding was that hospital coordinators represent a middle score between the two groups (L and CRP), which indicates that the answers from the additional group of hospitals coordinators can be used as a middle representation of the other hospitals in Norway.

Predictors of implementation satisfaction

The regression analysis showed that factors associated with implementation satisfaction were leadership, resources and systems intervention. These findings confirm the importance of leadership and resources [36, 47, 50] and highlights leadership's' role in establishing the organisational drivers [31]. Making use of data decision support systems can help leadership to follow up on important issues which can slow down the implementation [32, 35].

Systems intervention was the third factor significantly associated with implementation satisfaction. The total score was very low, indicating that most health professionals and managers do not work with other systems. This seems to be a more spesialised activity, with highest scores from the hospital coordinators. The findings

highlight the importance of the hospital coordinators, and their role to systematise the hospital's' total work together with the leadership and the other child responsible personnel.

Comparing hospitals on law requirements

Four years after the legal change, all hospitals had made plans for training, developed clinical guidelines and established changes in data systems to register dependent children. However, outcome data of how well children were documented in the health records differed between the five hospitals, with the highest scores from the two university hospitals that scored highest on the total implementation scale.

The Norwegian process of establishing the legal changes in healthcare institutions comprised several dissemination efforts (a memorandum, commissioning document and regional conferences), which could be classified as a dissemination strategy, rather than an implementation strategy. The national competency network offered pilot training, web-based learning resources and learning networks. These efforts were not enough to secure equal chances of children receiving support and protection from the healthcare providers. Especially, there is a need to study the situation at smaller hospitals and consider strategies to support leadership and organisational change [51].

Initially, there was no national funding for coordinators at the hospitals. However, regional and national evaluations from 2011/2012 [41, 43], contributed to changes in the national funding stream from 2013, with more resources to the hospitals [49], to secure and systematize the work. There was also more emphasis on research, one of them this CHIP-study. From 2014, implementation was also included in the remit of Children's Best Interests, in addition to a steering group with representatives from the regional health authorities [52]. These policy changes demonstrate the importance of establishing "Policy-Practice Feedback Loops" [53], with practice experiences being fed back to policy makers, and being used to make necessary improvements. After preliminary findings from the multicentre study were launched in a report [30], the Directorate of Health made follow-up requirements to the National Competency Network, based on recommendations from the study.

Strengths and limitations

In this cross-sectional study, implementation is measured once, while it ideally should be measured several times to allow an examination of changes over time [31], and which is needed to measure outcomes like sustainability of new interventions [54]. There are also limitations inherent in cross-sectional research regarding

drawing conclusions from regression analysis, as factors can be associated with, rather than predictive of implementation satisfaction. The data collection took several months, which might have led to some differences in the staff's perception of the implementation process. On the other hand, there was a good response rate (73%) that was consistent across the five hospitals.

Another limitation was that the implementation data, including satisfaction ratings, relied on self-reports which have the potential to be biased. However, a strength was the inclusion of independent outcome data of children documented in patient's health record. This is also in line with recommendations [33, 48] to include other outcomes, like adoption and penetration within an organisation.

Earlier research has concluded that there is a need for common definitions, measures and tools [34] to study implementations outcomes, as well as to develop better instruments with higher psychometric quality [55]. One strength of this study is that is uses a well-known framework [35], and an earlier piloted instrument [33] to measure implementation. ICQ appears to be a useful measure of implementation of changes in law to safeguard information and help for children of ill parents. However, a weakness is that it is quite long. In the future it might be possible to pare down the measure to three or four items on each subscale and develop a more brief and pragmatic measure. Finally, there are two key strength of this study. It reports on leadership and organisational drivers, which are not commonly empirically examined and reported [31, 56, 57].

Conclusion

The Norwegian strategy to establish the changes in law comprised mostly dissemination efforts, rather than being an implementation strategy. This strategy was not enough to secure equal chances of protection for children with ill parents. There were clear implementation differences between the five hospitals, especially in relation to supervision, data support systems and leadership, with the smallest hospital in the most rural location scoring lowest. Leadership, resources and systems intervention were key predictors of implementation satisfaction, with hospital coordinators having a key role, collaborating with other services to establish support for children. Outcome data of how well children were documented in the health records differed between the five hospitals, with the highest scores from the two university hospitals, with the highest implementation scores. In summary, the findings indicate that in the hospitals that invest in leadership, resources and systems intervention, the stakeholders will be both more satisfied with the implementation process and more successful in complying with the new law. To strengthen the implementation

support, we recommend national, regional and local implementation teams to be established, making use of decision support data systems, and rapid cycle feedback loops for the leadership at all levels to follow up the implementation process. There is also a need to establish routines for performance assessment (adherence or fidelity checks) and national quality indicators.

Appendix

Description of subscales/ implementation drivers

The present study has nine subscales or 'implementation drivers': selection (e.g. *job description for child responsible personnel is clear*), training (e.g. *the hospital trust has made a plan for the training of other health professionals*), supervision (e.g. *child responsible personnel receive supervision, individually or in a group*), performance assessment (e.g. *the individual unit is evaluated in relation to whether they follow the legislative amendments*), facilitative administration (e.g. *a clear management and teams has been established in the hospital trust / division / clinic to work systematically with implementation of the amendments*), decision support data system (e.g. *responsibility for the development of computer systems, measurement and reporting of follow up on children of ill parents is clearly placed in the organization*), systems intervention (e.g. *work to influence external systems so that they have more understanding of the change of legislation; regional authorities and partners like regional health authorities, regional centers of expertise, county councils, universities and politicians in the region*), resources (e.g. *the organisation has sufficient time and capacity to lead the work*), and leadership (e.g. *leaders within the organisation have continually looked for ways to align practices with the overall mission, values, and philosophy of the organisation*).

Skogøy *et al. BMC Health Services Research* (2018) 18:609

Page 10 of 11

Availability of data and materials
Data is stored at Akershus University Hospital. The dataset will not be shared, as a PhD-candidate is currently working on the remaining data.

Authors' contributions
BES designed the study, performed data collection, the statistical analysis and drafted the manuscript. KS, GCP, EK, ET, JCL, TR participated in the design of the study and helped in drafting the manuscript; TR was the project manager in the multicentre study in which this study was a part. KS, DM co-supervised design of the study and the draft of the manuscript; TO was the main supervisor in design of the study and drafting of the manuscript. All authors read and approved the final manuscript.

Ethics approval and consent to participate
The study is approved by the Regional Committee on Medical and Health Research Ethics South-East (reg. no. 2012/1176) and by the Privacy Ombudsman. Participants received an information letter, and gave their consent to participate before answering the questionnaire.

Consent for publication
Not applicable.

Competing interests
One co-author, Torleif Ruud, is a member of the editorial board (Associate Editor) of this journal, but the decision and process of submission was completely transparent and the authors declare that they have no competing interests.

Publisher's Note
Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Author details
[1]Nordland Hospital Trust, Kløveråsveien 1, 8092 Bodø, Norway. [2]The Faculty of Health Sciences, UiT, The Arctic University of Norway, Box 6050, 9037 Tromsø, Norway. [3]Monash University Department of Rural Health, Box 973, Moe, VIC 3825, Australia. [4]Department for Research and Development, Mental Health Services, Akershus University Hospital, Box 1000, 1478 Lørenskog, Norway. [5]Institute of Clinical Medicine, University of Oslo, Box 1171, Blindern, 0318 Oslo, Norway. [6]Vestre Viken Hospital Trust, Box 800, 3004 Drammen, Norway. [7]Stavanger University Hospital, Box 8100, 4068 Stavanger, Norway. [8]BarnsBeste (Children's Best Interests) - National Competence Network for Children as Next of Kin, Sørlandet Hospital Trust, Box 416, 4604 Kristiansand, Norway. [9]Norwegian Center for Child Behavioral Development, Unirand, Box 7053, Majorstuen, 0368 Oslo, Norway. [10]Institute of Psychology, University of Oslo, Box 1171, Blindern, 0318 Oslo, Norway. [11]Health and Services Research Unit, Akershus University Hospital, Box 1000, 1478 Lørenskog, Norway.

References
1. Solantaus T, Puras D. Caring for children of parents with mental health problems — a venture into historical and cultural processes in Europe. Int J Ment Health Promot. 2010;12(4):27–36. https://doi.org/10.1080/14623730.2010.9721823.
2. Nicholson J, Reupert A, Grant A, Lees R, Maybery D, Mordoch E, et al. The policy context and change for families living with parental mental illness. In: Parental psychiatric disorder: Distressed parents and their families; 2015. p. 354–65.
3. Becker S. Global perspectives on Children's unpaid caregiving in the family: research and policy on 'Young Carers' in the UK, Australia, the USA and Sub-Saharan Africa. Glob Soc Policy. 2007;7(1):23–50. https://doi.org/10.1177/1468018107073892.
4. Falkov A, Goodyear M, Hosman CMH, Biebel K, Skogøy BE, Kowalenko N, et al. A systems approach to enhance global efforts to implement family-focused mental health interventions. Child Youth Serv. 2016;37(2):175–93. https://doi.org/10.1080/0145935x.2016.1104104.
5. Nationellt kompetenscentrum anhoriga. Om vårt uppdrag (About our mission - National competence centrum next of kin) Nka. 2014. http://www.anhoriga.se/anhorigomraden/barn-som-anhoriga/om-oss/. Accessed 9 Mar 2018.
6. Hjern A, Berg L, Arat A, Klöfvermark J, Manhica H, Rostila M et al. Children as next of kin in Sweden. 2017.
7. Reupert AE, Cuff R, Drost L, Foster K, van Doesum KTM, van Santvoort F. Intervention programs for children whose parents have a mental illness: a review. MJA Open. 2012;1(Suppl 1):18–22. https://doi.org/10.5694/mjao11.11145.
8. Fraser C, James EL, Anderson K, Lloyd D, Judd F. Intervention programs for children of parents with a mental illness: a critical review. Int J Ment Health Promot. 2006;8(1):9–20.
9. Goodyear M, Obradovic A, Allchin B, Cuff R, McCormick F, Cosgriff C. Building capacity for cross-sectorial approaches to the care of families where a parent has a mental illness. Adv Ment Health. 2015;13(2):153–64. https://doi.org/10.1080/18387357.2015.1063972.
10. Bayer J, Hiscock H, Scalzo K, Mathers M, McDonald M, Morris A, et al. Systematic review of preventive interventions for children's mental health: what would work in Australian contexts? Aust N Z J Psychiatry. 2009;43(8): 695–710. https://doi.org/10.1080/00048670903001893.
11. Bröning S, Kumpfer K, Kruse K, Sack P-M, Schaunig-Busch I, Ruths S, et al. Selective prevention programs for children from substance-affected families: a comprehensive systematic review. Subst Abuse Treat Prev Policy. 2012; 7(1):23.
12. Berggren UJ, Hanson E. Stödprogram riktade till barn och/eller föräldrar när en förälder missbrukar alkohol eller andra droger – en kunskapsöversikt. (Programs to support children and/or parents with substance abuse problems - an overview). Sweden: Nka Linnéuniversitetet; 2016.
13. Järkestig Berggren U, Hanson E. Children as next of kin: a scoping review of support interventions for children who have a parent with a serious physical illness. Child Care Pract. 2015;22(3):277–95. https://doi.org/10.1080/13575279.2015.1102125.
14. Niemela M, Hakko H, Rasanen S. A systematic narrative review of the studies on structured child-centred interventions for families with a parent with cancer. Psycho-Oncology. 2010;19(5):451–61. https://doi.org/10.1002/pon.1620.
15. Siegenthaler E, Munder T, Egger M. Effect of Preventive Interventions in Mentally Ill Parents on the Mental Health of the Offspring: Systematic Review and Meta-Analysis. J Am Acad Child Adolesc Psychiatry. 2012;51(1):8–17
16. Helse- og omsorgsdepartementet. Ot.prp. nr. 84. Om lov om endringar i helsepersonell loven m.m. (oppfølging av born som pårørande) (About changes in the Health Personnel Act, children as next of kin). Oslo: Ministry of Health and Care Services; 2008–2009. p. 44.
17. Helsedirektoratet. Barn som pårørende (Children as next of kin). Oslo: Directorate of Health; 2010.
18. Unicef. Convention on the Rights of the Child. 1989.
19. Grant A, Goodyear M, Maybery D, Reupert A. Differences between Irish and Australian psychiatric Nurses' family-focused practice in adult mental health services. Arch Psychiatr Nurs. 2016;30(2):132–7. https://doi.org/10.1016/j.apnu.2015.07.005.
20. Korhonen T, Vehviläinen-Julkunen K, Pietilä A-M. Do nurses working in adult psychiatry take into consideration the support network of families affected by parental mental disorder? J Psychiatr Ment Health Nurs. 2008;15(9):767–76. https://doi.org/10.1111/j.1365-2850.2008.01309.x.
21. Slack K, Webber M. Do we care? Adult mental health professionals' attitudes towards supporting service users' children. Child Fam Soc Work. 2008;13(1): 72–9.
22. Maybery D, Goodyear M, O'Hanlon B, Cuff R, Reupert A. Profession differences in family focused practice in the adult mental health system. Fam Process. 2014;53(4):608–17.
23. Maybery D, Goodyear M, Reupert A, Grant A. Worker, workplace or families: what influences family focused practices in adult mental health? J Psychiatr Ment Health Nurs. 2016;23(3–4):163–71.
24. Maybery DJ, Reupert AE. Parental mental illness: a review of barriers and issues for working with families and children. J Psychiatr Ment Health Nurs. 2009; 16(9):784–791
25. Ploeg J, Davies B, Edwards N, Gifford W, Miller PE. Factors influencing best-practice guideline implementation: lessons learned from administrators, nursing staff, and project leaders. Worldviews Evid-Based Nurs. 2007;4(4): 210–9. https://doi.org/10.1111/j.1741-6787.2007.00106.x.
26. Baker R, Camosso-Stefinovic J, Gillies C, Shaw EJ, Cheater F, Flottorp S et al. Tailored interventions to address determinants of practice. 2015.

Skogøy *et al. BMC Health Services Research* (2018) 18:609

Page 11 of 11

27. Weiner B. A theory of organizational readiness for change. Implement Sci. 2009;4:67.

28. Michaelis B, Stegmaier R, Sonntag K. Shedding light on followers' innovation implementation behavior: The role of transformational leadership, commitment to change, and climate for initiative. J Manag Psychol. 2010;25(4):408–29. https://doi.org/10.1108/02683941011035304.

29. Aarons GA, Sommerfeld DH. Leadership, innovation climate, and attitudes toward evidence-based practice during a statewide implementation. J Am Acad Child Adolesc Psychiatry. 2012;51(4):423–31. https://doi.org/10.1016/j.jaac.2012.01.018.

30. Ruud T, Birkeland B, Faugli A, Hagen KA, Hellman A, Hilsen M, et al. Barn som pårørende -Resultater fra en multisenterstudie (children as next of kin -results from a multicenter study) IS-05022. Oslo: Akershus universitetssykehus HF; 2015.

31. Fixsen DL, Naoom SF, Blase KA, Friedman RM, Wallace F. Implementation research: a synthesis of the literature. Tampa: University of South Florida, Louis de la Parte Florida Mental Health Institute, The National Implementation Research Network; 2005.

32. Bertram RM, Blase KA, Fixsen DL. Improving programs and outcomes implementation frameworks and organization change. Res Soc Work Pract. 2015;25(4):477–87.

33. Ogden T, Bjornebekk G, Kjobli J, Patras J, Christiansen T, Taraldsen K, et al. Measurement of implementation components ten years after a nationwide introduction of empirically supported programs--a pilot study. Implement Sci. 2012;7:49. https://doi.org/10.1186/1748-5908-7-49.

34. Greenhalgh T, Robert G, Macfarlane F, Bate P, Kyriakidou O. Diffusion of innovations in service organizations: systematic review and recommendations. Milbank Q. 2004;82 https://doi.org/10.1111/j.0887-378X.2004.00325.x.

35. Fixsen DL, Blasé KA. Drivers framework. Chapel Hill: The National Implementation Research Network, University of North Carolina; 2008.

36. Heifetz RA, Laurie DL. The work of leadership. Harv Bus Rev. 1997;75:124–34.

37. Fixsen DL, Blase KA, Naoom SF, Wallace F. Core Implementation Components. Res Soc Work Pract. 2009;19(5):531–40. https://doi.org/10.1177/1049731509335549.

38. Bumbarger BK, Campbell EM. A state agency-university partnership for translational research and the dissemination of evidence-based prevention and intervention. Admin Pol Ment Health. 2012;39(4):268–77. https://doi.org/10.1007/s10488-011-0372-x.

39. BarnsBeste. Om oss, Nasjonalt kompetansenettverk for barn som pårørende (About us, National competency network for children as next of kin). Children's Best Interest. 2011. http://nyheter.barnsbeste.no/side/1,om-oss.html. Accessed 9 Mar 2018.

40. Helse- og omsorgsdepartementet. Oppdragsdokument (Commisioning dokument) 2009 Helse Sør-Øst RHF. Oslo: Ministry of Health and Care Services; 2009.

41. Kallander EK, Brodahl L, Kibsgård H. Oversikt over Helse-og omsorgsdepartementets satsing for barn som pårørende (Overview of the Health and Care departement's commitment to children as next of kin) 2007–2010, Rapport IS-2011. Oslo: Directorate of Health; 2012.

42. Wærdahl R, Bakke K. "Vi spør ikke, vi bare gjør" En evaluering av kompetansenettverket BarnsBeste (Evaluation of the competence network Children's Best Interests). Kristiansand: Agderforskning; 2011.

43. Skogøy BE. Sluttrapport barn som pårørende (final report children as next of kin). Bodø: Helse Nord RHF; 2012.

44. Fixsen D, Blase K, Naoom S, Duda M. ImplementationDrivers Assessing Best Practices. Chapel Hill: Frank Porter Graham Child Development Institute, University of North Carolina; 2015. http://implementation.fpg.unc.edu/sites/implementation.fpg.unc.edu/files/NIRN-ImplementationDriversAssessingBestPractices.pdf. Accessed 12 Dec 2016

45. Meulman J, Heiser W. SPSS Inc. SPPS categories; 2008. p. 17.

46. Schmider E, Ziegler M, Danay E, Beyer L, Bühner M. Is it really robust? Methodology. 2010;6(4):147–151

47. Damanpour F. Organizational innovation: a meta-analysis of effects of determinants and moderators. Acad Manag J. 1991;34(3):555–90.

48. Aarons GA, Hurlburt M, Horwitz SM. Advancing a conceptual model of evidence-based practice implementation in public service sectors. Admin Pol Ment Health. 2011;38(1):4–23. https://doi.org/10.1007/s10488-010-0327-7.

49. Helse- og omsorgsdepartementet. Oppdragsdokument (Commisioning dokument) 2013, Helse Sør-Øst RHF. Oslo: Ministry of Health and Care Services; 2013.

50. Durlak JA, DuPre EP. Implementation matters: a review of research on the influence of implementation on program outcomes and the factors affecting implementation. Am J Community Psychol. 2008;41(3–4):327–50. https://doi.org/10.1007/s10464-008-9165-0.

51. Aarons G, Ehrhart M, Farahnak L, Hurlburt M. Leadership and organizational change for implementation (LOCI): a randomized mixed method pilot study of a leadership and organization development intervention for evidence-based practice implementation. Implement Sci. 2015;10(1):11.

52. BarnsBeste. Mandat (Mandate). Children's Best Interests. 2014. http://nyheter.barnsbeste.no/side/22,mandat.html. Accessed 9 Mar 2018.

53. Fixsen D, Blase K, Metz A, Van Dyke M. Statewide implementation of evidence-based programs. Except Child. 2013;79(2):213–30.

54. Proctor EK, Landsverk J, Aarons G, Chambers D, Glisson C, Mittman B. Implementation research in mental health services: an emerging science with conceptual, methodological, and training challenges. Admin Pol Ment Health. 2009;36(1):24–34. https://doi.org/10.1007/s10488-008-0197-4.

55. Lewis CC. The Society for Implementation Research Collaboration Instrument Review Project: a methodology to promote rigorous evaluation. Implement Sci. 2015;10 https://doi.org/10.1186/s13012-014-0193-x.

56. Drozd F, Vaskinn L, Bergsund HB, Haga SM, Slinning K, Bjørkli CA. The implementation of internet interventions for depression: a scoping review. J Med Internet Res. 2016;18(9):e236

57. Ogden T, Fixsen DL. Implementation science. Z Psychol. 2015;222:4–11. https://doi.org/10.1027/2151-2604/a000160.

Paper 2

Differences in implementation of family focused practice in hospitals: a cross-sectional study

Bjørg Eva Skogøy[1,2*] , Darryl Maybery[3], Torleif Ruud[4,5], Knut Sørgaard[1,2], Gro Christensen Peck[7], Elin Kufås[6], Kristin Stavnes[1,5], Eivind Thorsen[8] and Terje Ogden[9,10]

Abstract

Background: Changes in Norwegian law and health policy require all health professionals to help safeguard the provision of information and follow-up for the children of parents with mental or physical illness, or substance abuse problems, to decrease their risk of psychosocial problems. There is a lack of knowledge on how the national changes have been received by hospital-based health professionals, and if they have led to an increase in family focused practice.

Methods: This cross-sectional study examined the adherence of health professionals' ($N = 280$) in five hospitals to new guidelines for family focused practice, using a translated and generic version of Family Focused Mental Health Practice Questionnaire.

Results: Overall, health professionals scored high on knowledge and skills, and were confident in working with families and children, but reported moderate levels of family support and referrals. Comparison of the five hospitals showed significant differences in terms of workplace support, knowledge and skills and family support. The smallest hospital had less workplace support and less knowledge and skills but scored medium on family support. The two largest hospitals scored highest on family support, but with significant differences on parents refusing to have conversations with children.

Conclusions: Differences in implementation of family focused practice highlight the need to tailor improvement strategies to specific barriers at the different hospitals. The use of implementation theories and improvement strategies could promote full implementation, where all families and children in need were identified and had access to family support.

Trial registration The study is approved by the Regional Committee on Medical and Health Research Ethics South-East Q5 37 (reg. no. 2012/1176) and by the Privacy Ombudsman.

Keywords: Policy, Law, Family focused practice, Hospitals, Children as next of kin, Children of ill parents, Parental illness, Child responsible personnel

*Correspondence: Bjorg.eva.skogoy@nlsh.no
[1] Nordland Hospital Trust, Kløveråsveien 1, 8092 Bodø, Norway
Full list of author information is available at the end of the article

Background

Norway [1], Finland [2] and Sweden [3, 4] now require all health professionals to encourage support for children of parents with all types of illnesses. The regulations deriving from the 2010 law in Norway require all health professionals to; (a) register dependent children in the patient's health record, (b) have conversations with the parent about children's need for information and support, (c) offer help in family information sharing and conversations with children, (d) ensure that children can visit parents at the hospital, (e) assess children's and the family's needs, and (f) gain parents' consent to cooperate with other services in establishing necessary support [5].

These regulations are in line with international recommendations to include family focused, family centred, family sensitive, family oriented, family based, family inclusive or child cantered practices to support the children of parents ill with mental health [6–14], substance abuse [15, 16] or physical illness [17–19].

These changes in law are based on research evidence. Increasing parenting skills and improving young people's knowledge and resilience are key elements in 13 individual, group and family interventions that were recently meta-analysed, showing that these factors reduce by 40% children's risk of developing the same mental illness as their parents [20]. In physical health, a systematic review of 19 psychosocial interventions for families with parental cancer also showed most to be helpful, with improvements in quality of life and mental health or distress [21]. Prevention of mental illness in families is a prominent feature of recent health policies that has been found to work in mental health prevention practices.

Family focused practice supports the whole family unit, both the parents with an illness, and the children [6], and it has been suggested that it includes a continuum of practices [22], with core elements such as; family care planning, goal-setting, liaison between families and services, instrumental, emotional and social support, assessment of family members, psychoeducation, and a coordinated system of care between families and services [6].

Many children are affected by parental illness. A recent systematic review of 9 studies showed parent prevalence among patients in adult psychiatric services to range from 12.2 to 45.0% [23]. In Norway, parent prevalence is estimated to be 10.4–23.1% for severe and moderate mental disorders [24], with severe alcohol use disorder estimated to affect 2.7% of Norwegian children [24]. Physical illnesses such as cancer are estimated to affect 3.1% of Norwegian children (0–18 years), and 8.4% of young adults (19–25 years) [25]. Internationally, approximately 10% of children are estimated to have a parent with a chronic medical condition such as cancer and

multiple sclerosis [26]. It should be noted that estimates of parental illness vary in whether they include severe, moderate or broader categories of illness.

Researchers have noted numerous barriers to implementing family focused practices. These include differences across countries, organisational factors such as lack of resources and inadequate procedures, professional background, cultural and educational factors such as health professionals' attitudes and lack of expertise, lack of cooperation, and access to families [27–32]. More generally, it is recommended to tailor implementation strategies to different practice settings, and groups of practitioners to overcome implementation barriers [33, 34].

The Active Implementation Framework (AIF) [35–37] describes four implementation stages. In the exploration stage, needs are assessed, fit and feasibility of the intervention model is examined, stakeholders are involved, and an implementation plan is made. In the installation stage, implementation support is developed alongside necessary structural and instrumental changes. In the initial implementation stage, new services for families and children are delivered. At this stage it is important to use data to drive decision-making, alongside a rapid-cycle problem-solving approach to make necessary improvements. The final stage is full implementation, where systems and organisational changes are established and become part of sustained routine practice. This article pertains to the full implementation stage.

Implementation research shows that changing daily practice by introducing evidence and clinical guidelines requires comprehensive approaches at different levels. It is recommended to tailor interventions to specific settings and target groups [33]. Plans for change should be based on characteristics of the evidence or guidelines and on known barriers and facilitators of change [38–40].

Leadership plays a critical role in creating organisational readiness for change [41]. Leaders who can inspire and motivate employees have been found to predict implementation of innovative practice [42], to be associated with innovation climate and more positive staff attitudes to the adoption of evidence-based practice [43], and to be a predictor of implementation satisfaction [44]. Large organisations often have more resources than small ones, such as knowledge and skills for innovative practice and role specialisation [44–46].

Change agents [47] or champions [39, 48]) have been found to play an important role in innovative practice, and without their contributions it is less likely that new practice will be implemented [46]. Norwegian hospitals must comply with the law by having child responsible personnel (CRP). They have a common responsibility to support change across all hospitals, and to promote and

coordinate support given by health professionals to parents as patients and their children. Being a CRP comes in addition to the health professional's ordinary work and with no extra remuneration. Some of them have participated in a 2 by 2 days training programme piloted by the national competency network and/or taken an e-learning programme (http://www.barnsbeste.no). Others have been offered training and supervision by their hospital.

Aims

This study examines the level of family focused practice in Norway following the 2010 changes according to the law. The study is part of a large multicentre study (The CHIP-study) [49] of patients', partners', and children's satisfaction with the implementation of the changes to the law, and of the follow up on children´s needs when parents have a mental illness, a serious physical illness, or substance abuse. The first aim was to describe the type and extent of family focused practice in the five hospitals taking part in the study. The second aim was to explore any differences in family focused practices between the five hospitals.

Methods

Design

This was an exploratory cross-sectional study.

Context

The five hospitals in this study serve 34% of the total Norwegian population of 5.2 million. To get maximum diversity we included five hospitals of different sizes, from three regions across Norway, including both rural and urban areas. Hospital 1 (H1) serves 136,000 inhabitants, and the others serve 290,000 (H2), 358,000 (H3), 480,000 (H4) and 493,000 (H5) inhabitants respectively [50]. H1 is the smallest hospital and provides health services to a large rural area, and H3 and H5 are university hospitals. Each hospital had appointed CRPs to support and systematise the work. Four of the hospitals had appointed a hospital coordinator (H-CRP), with H1 having coordinators at a lower level. Hospital 5 was the only hospital with a full-time H-CRP. There were from 21 to 45 CRPs per 100,000 inhabitants served, with the two largest hospitals having a smaller number of CRPs per 100,000 (H1: 39, H2: 45, H3: 41, H4: 21, H5: 24).

Sample

The 280 health professionals participating in this study were recruited from stratified, randomly selected outpatient and inpatient units for physical illness (cancer and neurological illness), mental illness and substance abuse in the five hospitals. A group of CRPs, (n = 104, 72% response rate) with one CRP per unit. A second group was recruited from other clinicians (C) treating patients who were recruited for the larger part of the CHIP-study (n = 176, 52% response rate). Among them, 32 were also CRP who was subsequently added to the CRP above.

There were significant differences between the hospitals regarding professional background and age. Participants at H5 were on average 6 years younger than at H2. More social workers participated from H4 than from H3, more physicians from H2 than from H3, and more others (e.g. family therapists, physical therapists, occupational therapists, hospital chaplains and nurse assistants) from H1 than from H5. There was no significant difference between the hospitals in the number of CRPs, or whether health professionals had received specific training after changes to the law, see Table 1. The online questionnaire was designed to avoid missing values when completing the FFPQ.

Data collection

The data were collected from June 2013 to December 2014. Health professionals (child responsible personnel and other clinicians) received an e-mail invitation with reminders. Link and password to the web-based version of the FFPQ [51] were distributed after confirmation of participation.

Measure

The measure employed in this study was adapted from the Family Focused Mental Health Questionnaire [51]. The questionnaire has been used regarding family focused practice in relation to parental mental health problems in Australia [31, 52, 53], Ireland [27] and Thailand [54]. The 49-item measure with 17 subscales employs a seven-point Likert Scale. Scores ranged from 1 to 7, from *strongly disagree* = 1 to *strongly agree* = 7, and in addition *not applicable* (N/A).

The measure was translated into Norwegian and made generic, to focus health professionals' work with parents affected by all kinds of illnesses (not solely mental health), which makes it possible to use the same questionnaire also in somatic clinics and in substance abuse clinics. The translation was made by two persons separately, and differences were discussed with three colleges/supervisors to reach consensus. Back-translation was conducted by a native English-speaking person, followed by further discussions with the authors before finalising the Norwegian version.

Content validity of the items in the questionnaire was discussed with a sample of experts in this area, and the clarity of the questions and layout was tested in a pilot study with health professionals and user consultants. The main changes from the original questionnaire were that *mental illness* were replaced by *illness*, *mental health*

Table 1 Differences across Hospitals of participants' background and role (N = 280)

	Total	H1 (n = 73)	H2 (n = 41)	H3 (n = 43)	H4 (n = 65)	H5 (n = 58)	p
Gender							
Women (%)	224 (80)	62 (84.9)	28 (68.3)	33 (76.7)	52 (80.0)	49 (84.5)	.228
Men (%)	56 (20)	11 (15.1)	13 (31.7)	10 (23.3)	13 (20.0)	9 (15.5)	.228
Age (SD)	45.4 (10.2)	45.0 (9.5)	49.5 (8.5)	44.2 (10.1)	46.2 (10.7)	43.1 (10.7)	.029*
Length of exp. (SD)	18 (10.1)	17 (9.9)	21 (10.7)	18 (9.8)	17 (10.3)	15 (9.7)	.109
Years in post (SD)	6.1 (5.6)	6.3 (5.6)	8.2 (6.2)	5.5 (5.7)	6.4 (5.3)	4.6 (5.2)	.118
Profession							
Nurse (%)	101 (36.1)	29 (39.7)	17 (41.5)	17 (39.5)	16 (24.6)	22 (37.9)	.292
Social worker (%)	42 (15.0)	6 (8.2)	3 (7.3)	6 (14.0)	17 (26.2)	10 (17.2)	.025*
Psychologist (%)	71 (25. 4)	15 (20.5)	5 (12.2)	13 (30.2)	17 (26.2)	21 (36.2)	.066
Physician (%)	32 (11.4)	9 (12.3)	9 (22.0)	0 (0)	10 (15.4)	4 (6.9)	.015*
Other (%)	34 (12.1)	14 (19.2)	7 (17.1)	7 (16.3)	5 (7.7)	4 (1.7)	.016*
Role							
CRP (%)	136 (48.6)	33 (45.2)	21 (51.2)	27 (62.8))	28 (43.1))	27 (46.8)	.308
C (%)	144 (51.4)	40 (54.8)	20 (48.8)	16 (37.2)	37 (56.2)	31 (53.4)	.308
Specific training (SD)	1.04 (.85)	1.07 (.82)	1.05 (.90)	1.16 (.80)	1.08 (.80)	.84 (.83)	.385

* p < .05

workers were replaced by *health professionals*, and the explanation before the questionnaire stated that the aim was *to explore family focused practice within all types of illnesses* (mental illness, physical illness and substance abuse), as required by the Norwegian changes to the law.

Reliability of the measure was analysed using Cronbach's alpha reliability analysis, using SPSS (version 24). Three items were removed from subscales, to increase reliability on the training, confidence and family support subscales. Reliability of the subscales ranged from .17 to .80, with seven scales scoring under .60. In this article, we report only the ten subscales that scored over .60, with five of them scoring over .70 (see Table 2).

Health professionals were also asked about the number of conversations with parents, the number of conversations with children, and how many parents that had refused conversations with their children during the last 2 months. These were rated; *none = 0, one to two = 1, three to five = 2, over five = 3.* Health professionals were also asked if they had participated in specific training to deliver family focused practice in accordance with changes to the law. These where rated; *no = 0, to some degree = 1, yes = 2.*

The participants were asked whether their unit had made improvements to better support children while visiting their parents, like a better play area or family room.

Table 2 Descriptive statistics of family focused practice subscales, definitions, and reliability (Cronbach's alphas) (N = 280)

Subscale	Subscale definition	α	M (SD)
Workplace support	The workplace provides support (e.g. supervision) for family focused practice.	.67	4.52 (1.54)
Co-worker support	The support from other workers regarding family focused work	.62	5.08 (1.13)
Time family work	Time or workload constraints regarding family focused practice	.80	4.50 (1.45)
Service available	There are programmes to refer families to	.62	4.85 (1.34)
Knowledge skills	Worker skill and knowledge regarding impact of parental mental illness on children	.76	4.93 (1.00)
Connectedness	Workers' assessment of parent awareness of child connectedness	.71	5.12 (.95)
Confidence	The level of confidence the worker has in working with families, parents and children	.72	5.71 (1.15)
Need training	Worker willing to undertake further training	.74	5.42 (1.05)
Family support	Providing resources and referral information to consumers and their families	.67	3.91 (1.27)
Referrals	Referring family members to other programmes	.69	4.09 (1.56)

FFPQ subscales, range 0–7

During the recruitment process for the larger part of the CHIP-study, 594 registration forms were collected, with anonymous data of the number of patients' children available for recruitment, controlling whether children were documented in patients' health records, as required.

Analysis

Descriptive statistics for characteristics of the participants were calculated and differences between hospitals explored (Table 1). Mean and standard deviations for each of the ten FFPQ subscales with acceptable reliability was calculated (Table 2). A two-way between groups analysis of covariance (ANCOVA) was performed to determine differences between hospitals at the level of family focused practice, controlling for the demographics, professional background, role (CRP and C), and having received specific training (Table 3). As there were no

statistically significant interaction effects between the role of personnel and hospitals on any of the subscales, only differences among hospitals are reported. The hospitals also were compared on other aspects of family focused practice. ANOVA was used to calculate differences between hospitals in establishing play areas and family rooms. The number of patient's children found in the registration forms at the recruitment days, were compared with documentation of patient's children (in the patient's electronic health record) and descriptive statistics were used to calculate differences between hospitals and types of services.

Results

Descriptive statistics

The highest ratings by the total group of health professionals ($N = 280$) were given on the confidence subscale

Table 3 Mean differences (ANCOVA) of Family Focused Practice on Hospitals, adjusted for demographics, professional background, role (CRP or C) and specific training (N = 280)

	H1 (n = 73) Mean 95% CI	H2 (n = 41) Mean 95% CI	H3 (n = 43) Mean 95% CI	H4 (n = 65) Mean 95% CI	H5 (n = 58) Mean 95% CI	df	F	eff. size	Sig. p	Hospital differences
Organisation										
Workplace support	4.02 3.65–4.40	4.35 3.83–4.87	4.57 4.08–5.06	4.78 4.39–5.17	4.76 4.35–5.18	4.235|	2.463	.04	.046*	H4, H5 > H1
Co-worker support	4.86 4.61–5.16	4.77 4.39–5.44	5.07 4.71–5.44	5.20 4.91–5.49	5.20 4.90–5.51	4.249	1.298		.271	
Time family work	4.53 4.21–4.86	4.42 3.95–4.89	3.95 3.51–4.39	4.74 4.39–5.08	4.47 4.10–4.84	4.246	1.964		.101	
Service available	4.56 4.25–4.86	5.09 4.67–5.51	4.92 4.51–5.33	4.90 4.58–5.22	4.88 4.54–5.22	4.248	1.284		.277	
Worker										
Knowledge skills	4.63 4.41–4.84	4.83 4.53–5.13	4.96 4.67–5.24	5.10 4.87–5.32	5.09 4.87–5.32	4.249	2.943	.05	.021*	H4, H5 > H1
Connectedness	5.04 4.83–5.26	4.92 4.62–5.22	4.96 4.67–5.26	5.29 5.06–5.52	5.27 5.02–5.51	4.250	1.607		.173	
Confidence	5.34 5.27–5.80	5.61 5.23–5.99	5.62 5.26–5.97	6.01 5.72–6.29	5.62 5.33–5.92	4.249	1.613		.171	
Need training	5.68 5.44–5.92	5.40 5.04–5.75	5.35 4.92–5.58	5.19 4.94–5.45	5.54 5.27–5.81	4.243	2.352			
Practice										
Family support	3.81 3.54–4.08	3.63 3.20–4.05	3.32 2.96–3.68	4.03 3.73–4.32	4.27 3.96–4.58	4.218	4.393	.08	.002*	H5 > H1, H2, H3 H1, H4 > H3
Referrals	4.01 3.63–4.39	4.21 3.68–4.74	3.85 3.37–4.33	4.27 3.87–4.68	4.18 3.77–4.58	4.208	.549		.700	
Additional questions										
Conversation parents	1.37 1.15–1.60	1.46 1.15–1.77	1.56 1.26–1.87	1.81 1.56–2.05	1.80 1.56–2.05	4.258	2.378		.052	
Conversations children	.36 .21–.52	.32 .11–.54	.24 .03–.45	.45 .28–.61	.40 .22–.57	4.258	.633		.639	
Parents refused conversation children	.29 .13–.45	− 38 .16–.60	.56 .34–.77	.36 .19–.53	.70 .52–88	4.258	3.249	.05	.011*	H5 > H1, H2, H4

FFPQ subscales, range 1–7, Additional questions, range 0–3, * $p < .05$

Skogøy et al. Int J Ment Health Syst   (2018) 12:77

Page 6 of 11

($M = 5.71$, range 0–7), in which they stated that they were confident in working with families (Table 2). Nevertheless, they wanted more training ($M = 5.42$). The lowest total ratings were given on the family support subscale ($M = 3.91$), as when they delivered family support or referred families/children to other services ($M = 4.09$). They agreed to some extent that they had time to work with families ($M = 4.50$).

Differences of family focused practice on hospitals

Table 3 shows significant differences when the hospitals were compared on *workplace support, knowledge and skills, family support.* The ANCOVA analyses controlled for demographics, professional background, role (CRP or C) and specific training. There were also significant differences with respect to age, length of experience, professional background, role, and specific training.

Post Hoc Bonferroni analyses showed that H1 scored significantly lower on *workplace support* than H4 and H5. Significant other differences were found for; specific training and professional background, with social workers receiving less support than nurses. On *knowledge and skills,* H1 scored significantly lower than H4 and H5. Other significant effects were age, having received specific training and role, with child responsible personnel having more knowledge than other clinicians. On *family support*, H5 scored significantly higher than H1, H2 and H3, and H1 and H4 scored significantly higher than H3. Significant effects were also found for specific training and professional background, with social workers delivering more family support than nurses, and psychologists delivering less family support than nurses. *On parents refusing conversations with children,* H5 had significantly more refusals than H1, H2 and H4. Other significant effects were age and received specific training, with younger and less trained health professionals receiving more refusals to include children in the conversations.

Comparing hospitals on other aspects of family focused practice

As reported by Skogøy [44], the hospitals had to some degree improved the support for children visiting parents at the hospital, e.g. establishing family rooms, establishing play areas or improving routines for welcoming children. We found no significant differences between the hospitals on these variables.

All hospitals had made changes in their data systems to register if the patients had minor children (0–18 years) [44]. Overall, 61% (1540 of 2529 children) were registered in the patient's health record. However, there were differences between somatic clinics (51%), mental health clinics (61%), and substance abuse clinics (71%) [44]. There were also differences between the hospitals (51–82%),

with the highest registrations at the two university hospitals (H3, 77% and H5, 82%) [44], which also scored highest on giving specific training in registration procedures. H4 also had high registration rates in mental health clinics (80%), and substance abuse clinics (69%), but the somatic clinics (cancer and neurology), registered none of the children.

Discussion

This study examined the type and extent of family focused practice in five Norwegian hospitals following changes to the law and explored differences between the five hospitals. Overall, health professionals in Norway had high knowledge and confidence in working with families and children. However, they showed moderate family support and made few referrals, indicating that the hospitals are still in the installation stage of the policy changes. When the five hospitals were compared, there were significant differences on three family focused practice subscales: workplace support, knowledge and skills, and family support. In addition, there were differences in how many parents refused to have conversations with their children.

Differences of family focused practice on hospitals

Norwegian health professionals gave high ratings on knowledge and skills, and connectedness, with the highest rating on the confidence scale. This is encouraging and contrasts earlier studies where mental health professionals have been found to lack enough knowledge and skills on how to support patients' children [30, 55]. However, the implementation of family focused practice was still moderate, with the lowest ratings on family support and referrals. Compared to a study of Australian and Irish psychiatric nurses [27], the health professionals in Norwegian hospitals are more confident in working with families and children than are Australian and Irish psychiatric nurses. However, they score lower than Australian psychiatric nurses on both family support and referrals, while scores on the time for family work, service available and need training subscales are quite similar. Though knowledge and skills, and confidence are high in Norway, this has not yet led to increased family support and referrals for the total group, which indicate that Norwegian hospitals are still in an initial implementation stage of the policy changes

However, there were significant differences between the hospitals on three of the ten FFP-subscales; workplace support, knowledge and skills, and family support. Hospital 1 scored significantly lower than H4 and H5 on workplace support and on knowledge and skills, suggesting that the quality of training and supervision has been poorer at H1. This is supported by earlier

Skogøy et al. Int J Ment Health Syst   (2018) 12:77

Page 7 of 11

findings [44], with this hospital lacking a hospital coordinator, and having the lowest implementation scores, especially on leadership, decision support data systems and supervision.

Despite these lower results on workplace support and knowledge and skills, Hospital 1 scored medium on family support, being significantly higher than H3. It is notable that both professional background and having received specific training also had significant effects on the level of family support, with social workers and nurses giving more family support than psychologists. These results confirm earlier studies showing that family support can be influenced by both organisational and worker-related factors [32, 56].

We expected that H3, with high implementation scores [44], would have scored higher on family support. However, one explanation might be the less time for family work at H3, as time has been identified in earlier studies as predictor of family support [56]. Another explanation might be that the clinicians relay on other services available, with this area having a Next of kin Centre [57]. There are some research showing that working in a rural area can predict FFP [58], suggesting that if there is a lack of other services available, the health professionals might try to support the families. However, these suggestion needs to be further explored, and there might be other important explanations of these differences.

Another notable finding was that both H4 and H5 scored high on having conversations with parents, and giving family support, but H4 had significantly fewer parents who refused to have conversations with children, compared to H5. Barriers to parents' and children's', willingness to take part in conversations have been identified in earlier studies [21, 30]. However, the timing for the conversations might be important [21], if they were planned when patients felt overwhelmed, and needed time to adjust to a severe diagnosis. The patient and their next of kin may also have different needs, as when patient needed treatment and rest, and their next of kin needed information and family support [59]. Family related development projects at H4 have highlighted the importance of health professionals being able to build a trustful relationship in which patients worries and the children's situation can be discussed [59].

The findings highlight the importance of understanding why parents refuse to have conversations with their children, and whether this is related to health professionals' attitude, knowledge and skills, supervision, profession or other factors.

Comparing hospitals on other aspects of family focused practice

Improved routines for children to visit their sick parents were a positive finding in all hospitals included in the study and have been recommended in guidelines for oncology [17], and mental health [30, 60]. Family friendly visiting facilities may also give health professionals more possibilities to interact with children and enable family focused practice [30, 60, 61].

Registration of children in the parent's health record were considerably higher (61%) than the 44% found in 2012 (only one mental hospital included) [62]. This suggests that in contrast to being described as "hidden children" [63], children have become more visible as next of kin. However, the differences between hospitals (51–82%), and types of services (51–71%) signal that there is room for improvement. Internationally, identification of the parents as consumers of health services, along with their children, is thought to be a key step to integrating a family focused approach [7, 64]. As international estimates of children affected by parental illness vary, high registration rates could give more precise information regarding patients as parents, and the number of children potentially in need of support.

Implementation stages of family focused practice

Implementation of new practice may conflict with other demands in the hospital, which can affect organisational readiness for change [41]. In the installation stage, all implementation team members should be trained and gain a shared understanding of the intervention and of their implementation role [35, 65]. However, if a hospital has not fully addressed all aspects of the installation stage, e.g. established leadership/implementation teams, secured supervision or established data support systems, these weaknesses could affect the implementation of the next stage. This seems to be the situation at H1, where health professionals scored significantly lower than the other hospitals on workplace support and on knowledge and skills. This is not surprising, as this hospital was found to s score significantly lower than other hospitals on implementation drivers [44], especially on the subscales leadership, decision support data system and supervision.

All hospitals in this study seem to still be in an initial implementation stage, in which they are beginning to deliver new services to families and children. At this stage, it is critical to collect data to determine whether the interventions are being delivered as intended [37]. There were differences between hospitals on registration of children in patient's health record, family support, and parents refusing conversations with children, which

highlight the need for hospitals to use data to determine how to target their improvement strategies. Though health professionals have high knowledge and confidence in their ability to support families, other barriers like lack of workplace support, time and workload constrains or lack of co-worker support and supervision might hinder new family practice behaviour. There is still some time before implementation of the new regulation reaches the full implementation stage, where family focused practice is integrated into usual practice, and it takes time to be able to measure if the intervention leads to long term outcome effects for families [20], and lower societal costs [4].

Recommendations

Some important recommendations regarding policy, practice and research can be made from the findings of this study. They are as follows:

Policy

The findings highlight the need to establish national quality indicators in relation to the law changes, and these could include (a) number of patients registered as parents (b) the registration of children in parents' health record, suggested by BarnsBeste (Children's Best Interests)—National Competence Network for Children as Next of Kin in Norway.

The high risk and societal cost of children with parental illness [4] also make it important to discuss whether enough resources have been deployed to establish the preventive efforts stated in the new law. To achieve better results more quickly, special implementation teams are recommended [66, 67].

Practice

It is important to tailor improvement strategies to the situation at the hospitals and the specific services. Performance assessment and data systems are found to be important to support implementation of new practices [35, 65]. Creating a structure for implementation, ongoing implementation support strategies and process evaluation, with supportive feedback mechanisms and learning from experience are critical aspects of implementation, as highlighted in a summary of different frameworks and models [68].

Research

There is a need to further define the concept of family focused practice, and how this can be measured. Especially, it would be useful to include more detailed questions regarding conversations with parents, parents and children together, and conversations with children alone. It could also be useful to differentiate between knowledge and skills in measurements, as knowledge alone does not necessarily lead to a change of practice.

Strengths and limitations

The two groups of personnel were recruited from stratified, randomly selected units -from mental health, substance abuse and physical health. This is a key strength of the study. The response rate for child responsible personnel was high (73%). Lower, however (52%) for the sample of clinicians reponsible for the treatment of patients recruited for the larger part of the study. One reason for the lower response rate, was that the second group was recruited via their patients who consented to participate in the larger part of the study. This might have given a recruitment bias, with lower participation from health professionals with less interest in this topic, or with a higher workload (e.g. psychologists and psychicians).

Another limitation was that the family focused practice data relied on personnel self-reports, which might potentially be biased. However, the objective outcome data of children documented in patients' health records was a strength. This is in line with the recommendation [69, 46] to include other outcomes, like adoption and penetration within an organisation.

A strength of this study is that this measure has been used in other countries, which enables comparisons in both use of the measure and outcomes.

Conclusion

Overall, health professionals in Norway reported high levels of knowledge and confidence in working with families and children, but the reports on their ability to support family and make referrals were more modest. There were clear differences between hospitals on key variables like workplace support, knowledge and skills, family support and parents refusing conversations with children. The differences highlight the need for leadership to actively follow implementation progress in real time, and to tailor improvement strategies to hospital-specific needs. The findings allowed several recommendations for future policy, practice and research.

Skogøy *et al. Int J Ment Health Syst*   (2018) 12:77

Page 9 of 11

Author details
[1] Nordland Hospital Trust, Kløveråsveien 1, 8092 Bodø, Norway. [2] The Faculty of Health Science, UiT The Arctic University of Norway, Box 6050, 9037 Tromsø, Norway. [3] Monash University Department of Rural Health, Box 973, Moe, VIC 3825, Australia. [4] Department for Research and Development, Mental Health Services, Akershus University Hospital, Box 1000, 1478 Lørenskog, Norway. [5] Institute of Clinical Medicine, University of Oslo, Blindern, Box 1171, 0318 Oslo, Norway. [6] Vestre Viken Hospital Trust, Box 800, 3004 Drammen, Norway. [7] Stavanger University Hospital, Box 8100, 4068 Stavanger, Norway. [8] BarnsBeste (Children's Best Interests) - National Competence Network for Children as Next of Kin, Sørlandet Hospital Trust, Box 416, 4604 Kristiansand, Norway. [9] Norwegian Centre for Child Behavioural Development, Unirand, Majorstuen, Box 7053 0368 Oslo, Norway. [10] Institute of Psychology, University of Oslo, Blindern, Box 1171, 0318 Oslo, Norway.

Competing interests
The authors declare that they have no competing interests.

Availability of data and materials
Data is stored at Akershus University Hospital. The data cannot be freely used, as the study is part of a PhD thesis, with the candidate currently working on the remaining data.

Consent for publication
Not applicable.

Ethical approval and consent to participate
The study was approved by the Regional Committee on Medical and Health Research Ethics South-East (reg. no. 2012/1176) and by the Privacy Ombudsman in each of the five hospitals. Participants received an information letter and gave their consent to participate before answering the questionnaire.

Publisher's Note
Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

References
1. Helse- og omsorgsdepartementet. Ot.prp. nr. 84. Om lov om endringar i helsepersonell loven m.m. (oppfølging av born som pårørande) (About changes in the Health Personnel Act, children as next of kin) Oslo: Ministry of Health and Care Services; 2008–2009. p. 44.
2. Solantaus T, Puras D. Caring for children of parents with mental health problems—a venture into historical and cultural processes in Europe. Int J Ment Health Promot. 2010;12(4):27–36. https://doi.org/10.1080/14623730.2010.9721823.
3. Nationellt kompetenscentrum anhöriga. Om vårt uppdrag (About our mission—National competence centrum next of kin) Nka. 2014. http://www.anhoriga.se/anhorigomraden/barn-som-anhoriga/om-oss/. Accessed 03 Dec 2018.
4. Hjern A, Berg L, Arat A, Klöfvermark J, Manhica H, Rostila M, et al. Children as next of kin in Sweden. Kalmar: Nationellt kompetenscentrum anhöriga; 2017.
5. Helsedirektoratet. Barn som pårørende (Children as next of kin) Oslo: Directorate of Health; 2010.
6. Foster K, Mayberry D, Reupert A, Gladstone B, Grant A, Ruud T, et al. Family-focused practice in mental health care: an integrative review. Child Youth Serv. 2016;37(2):129–55. https://doi.org/10.1080/0145935x.2016.1104048.
7. Goodyear M, Hill TL, Allchin B, McCormick F, Hine R, Cuff R, et al. Standards of practice for the adult mental health workforce: meeting the needs of families where a parent has a mental illness. Int J Ment Health Nurs. 2015;24(2):169–80. https://doi.org/10.1111/inm.12120.
8. Nicholson J. Helping parents with mental illness. Behav Healthc. 2007;27(5):32–4.
9. Liangas G, Falkov A. Use of structured clinical documentation to identify patients' parental concerns and their childrens' wellbeing. Community Ment Health J. 2014;50(6):646–55.
10. Solantaus T, Toikka S, Alasuutari M, Beardslee WR, Paavonen EJ. Safety, feasibility and family experiences of preventive interventions for children and families with parental depression. Int J Ment Health Promot. 2009;11(4):15–24.
11. Bayer J, Hiscock H, Scalzo K, Mathers M, McDonald M, Morris A, et al. Systematic review of preventive interventions for children's mental health: what would work in Australian contexts? Aust N Z J Psychiatry. 2009;43(8):695–710. https://doi.org/10.1080/00048670903001893.
12. Beardslee WR, Gladstone TRG, Wright EJ, Cooper AB. A family-based approach to the prevention of depressive symptoms in children at risk: evidence of parental and child change. Pediatrics. 2003;112(2):e119–31.
13. Beardslee WR, Wright EJ, Gladstone TRG, Forbes P. Long-term effects from a randomized trial of two public health preventive interventions for parental depression. J Fam Psychol. 2007;2007(21):703–13.
14. Beardslee W, Lester P, Klosinski L, Saltzman W, Woodward K, Nash W, et al. Family-centered preventive intervention for military families: implications for implementation science. Prev Sci. 2011;12(4):339–48. https://doi.org/10.1007/s11121-011-0234-5.
15. Hjern A, Arat A, Vinnerljung B. Att växa upp med föräldrar som har missbruksproblem eller psykisk sjukdom – hur ser livet ut i ung vuxen ålder? Projektet "Barn som anhöriga". http://www.anhoriga.se: CHESS, Stockholms universitet/Karolinska Institutet i samarbete med Institutionen för socialt arbete vid Stockholms universitet.2014.
16. Berggren UJ, Hanson E. Stödprogram riktade till barn och/eller föräldrar när en förälder missbrukar alkohol eller andra droger—en kunskapsöversikt. (Programs to support children and/or parents with substance abuse problems—an overview). Sweden: Nka Linnéuniversitetet.2016.
17. Rauch PK, Muriel AC. The importance of parenting concerns among patients with cancer. Crit Rev Oncol Hematol. 2004;49(1):37–42.
18. Järkestig Berggren U, Hanson E. Children as next of kin: a scoping review of support interventions for children who have a parent with a serious physical illness. Child Care Pract. 2015;22(3):277–95. https://doi.org/10.1080/13575279.2015.1102125.
19. Niemela M, Hakko H, Rasanen S. A systematic narrative review of the studies on structured child-centred interventions for families with a parent with cancer. Psycho-oncology. 2010;19(5):451–61. https://doi.org/10.1002/pon.1620.
20. Siegenthaler E, Munder T, Egger M. Effect of preventive interventions in mentally ill parents on the mental health of the offspring: systematic review and meta-analysis. J Am Acad Child Adolesc Psychiatry. 2012. https://doi.org/10.1016/j.jaac.2011.10.018.
21. Inhestern L, Haller A-C, Wlodarczyk O, Bergelt C. Psychosocial interventions for families with parental cancer and barriers and facilitators to implementation and use—a systematic review. PLoS ONE. 2016;11(6):e0156967.
22. Mayberry D, Foster K, Goodyear M, Grant A, Tungpunkom P, Skogøy BE, et al. How can we make the psychiatric workforce more family focused? In: Reupert A, Mayberry D, Nicholson J, Gopfert M, Seeman M, editors.

Skogøy *et al. Int J Ment Health Syst*   (2018) 12:77

Page 10 of 11

Parental psychiatric disorder: distressed parents and their families. Cambridge: Cambridge University Press; 2015.

23. Maybery D, Reupert AE. The number of parents who are patients attending adult psychiatric services. Curr Opin Psychiatry. 2018;31(4):358–62.

24. Torvik FA, Rognmo K. Barn av foreldre med psykiske lidelser eller alkoholmisbruk. Edited by: Folkehelseinstitutt. 2011(2011).

25. Syse A, Aas GB, Loge JH. Children and young adults with parents with cancer: a population-based study. Clin Epidemiol. 2012;4:41–52. https://doi.org/10.2147/CLEP.S28984.

26. Sieh D, Meijer A, Oort F, Visser-Meily J, Van der Leij D. Problem behavior in children of chronically ill parents: a meta-analysis. Clin Child Fam Psychol Rev. 2010;13(4):384–97.

27. Grant A, Goodyear M, Maybery D, Reupert A. Differences between Irish and Australian psychiatric nurses' family-focused practice in adult mental health services. Arch Psychiatr Nurs. 2016;30(2):132–7. https://doi.org/10.1016/j.apnu.2015.07.005.

28. Korhonen T, Vehvilainen-Julkunen K, Pietila AM. Implementing child-focused family nursing into routine adult psychiatric practice: hindering factors evaluated by nurses. J Clin Nurs. 2008;17(4):499–508. https://doi.org/10.1111/j.1365-2702.2007.02008.x.

29. Slack K, Webber M. Do we care? Adult mental health professionals' attitudes towards supporting service users' children. Child Fam Soc Work. 2008;13(1):72–9.

30. Maybery DJ, Reupert AE. Parental mental illness: a review of barriers and issues for working with families and children. J Psychiatr Ment Health Nurs. 2009. https://doi.org/10.1111/j.1365-2850.2009.01456.x.

31. Maybery D, Goodyear M, O'Hanlon B, Cuff R, Reupert A. Profession differences in family focused practice in the adult mental health system. Fam Process. 2014;53(4):608–17.

32. Maybery D, Goodyear M, Reupert A, Grant A. Worker, workplace or families: what influences family focused practices in adult mental health? J Psychiatr Ment Health Nurs. 2016;23(3–4):163–71.

33. Baker R, Camosso-Stefinovic J, Gillies C, Shaw EJ, Cheater F, Flottorp S et al. Tailored interventions to address determinants of practice. 2015.

34. Durlak JA, DuPre EP. Implementation matters: a review of research on the influence of implementation on program outcomes and the factors affecting implementation. Am J Community Psychol. 2008;41(3–4):327–50. https://doi.org/10.1007/s10464-008-9165-0.

35. Bertram RM, Blase KA, Fixsen DL. Improving programs and outcomes implementation frameworks and organization change. Res Soc Work Pract. 2015;25(4):477–87.

36. Fixsen DL, Naoom SF, Blase KA, Friedman RM, Wallace F. Implementation research: a synthesis of the literature. Tampa, FL: University of South Florida, Louis de la Parte Florida Mental Health Institute, The National Implementation Research Network.; 2005.

37. Fixsen DL, Blase KA, Naoom SF, Wallace F. Core implementation components. Res Soc Work Pract. 2009;19(5):531–40. https://doi.org/10.1177/1049731509335549.

38. Grol R, Grimshaw J. From best evidence to best practice: effective implementation of change in patients' care. Lancet. 2003;362(9391):1225–30. https://doi.org/10.1016/S0140-6736(03)14546-1.

39. Ploeg J, Davies B, Edwards N, Gifford W, Miller PE. Factors influencing best-practice guideline implementation: lessons learned from administrators, nursing staff, and project leaders. Worldviews Evid Based Nurs. 2007;4(4):210–9. https://doi.org/10.1111/j.1741-6787.2007.00106.x.

40. Grimshaw JM, Schunemann HJ, Burgers J, Cruz AA, Heffner J, Metersky M, et al. Disseminating and implementing guidelines: article 13 in integrating and coordinating efforts in COPD guideline development. An official ATS/ERS workshop report. Proc Am Thorac Soc. 2012;9(5):298–303. https://doi.org/10.1513/pats.201208-066st.

41. Weiner B. A theory of organizational readiness for change. Implement Sci IS. 2009;4:67.

42. Michaelis B, Stegmaier R, Sonntag K. Shedding light on followers' innovation implementation behavior: the role of transformational leadership, commitment to change, and climate for initiative. J Manage Psychol. 2010;25(4):408–29. https://doi.org/10.1108/02683941011035304.

43. Aarons GA, Sommerfeld DH. Leadership, innovation climate, and attitudes toward evidence-based practice during a statewide implementation. J Am Acad Child Adolesc Psychiatry. 2012;51(4):423–31. https://doi.org/10.1016/j.jaac.2012.01.018.

44. Skogøy BE, Sørgaard K, Maybery D, Ruud T, Stavnes K, Kufås E, et al. Hospitals implementing changes in law to protect children of ill parents: a cross-sectional study. BMC Health Services Res. 2018;18(1):609.

45. Damanpour F. Organizational innovation: a meta-analysis of effects of determinants and moderators. Acad Manage J. 1991;34(3):555–90.

46. Aarons GA, Hurlburt M, Horwitz SM. Advancing a conceptual model of evidence-based practice implementation in public service sectors. Adm Policy Ment Health. 2011;38(1):4–23. https://doi.org/10.1007/s10488-010-0327-7.

47. Watson MC, Bond CM, Grimshaw J, Johnston M. Factors predicting the guideline compliant supply (or non-supply) of non-prescription medicines in the community pharmacy setting. Qual Saf Health Care. 2006;15(1):53–7. https://doi.org/10.1136/qshc.2005.014720.

48. Rogers EM. Diffusion of innovations. New York: Simon and Schuster; 2010.

49. Ruud T, Birkeland B, Faugli A, Hagen KA, Hellman A, Hilsen M et al. Barn som pårørende -Resultater fra en multisenterstudie (Children as next of kin -Results from a multicenter study) IS-05022. Oslo: Akershus universitetssykehus HF2015.

50. Statistisk Sentralbyrå. Statistikkbanken. 2014. Accessed 21 Nov 2016 2016.

51. Maybery D, Goodyear M, Reupert A. The family-focused mental health practice questionnaire. Arch Psychiatr Nurs. 2012;26(2):135–44. https://doi.org/10.1016/j.apnu.2011.09.001.

52. Laletas S, Goodyear M, Reupert A. Parental mental illness: cross-sectional analysis of family focused practice within the early childhood sector. J Child Fam Stud. 2018;27(5):1650–60.

53. Tchernegovski P, Reupert A, Maybery D. "Let's talk about children": a pilot evaluation of an e-learning resource for mental health clinicians. Clin Psychol. 2015;19(1):49–58.

54. Tungpunkom P, Maybery D, Reupert A, Kowalenko N, Foster K. Mental health professionals' family-focused practice with families with dependent children: a survey study. BMC Health Serv Res. 2017;17(1):818.

55. Lauritzen C, Reedtz C, Van Doesum KT, Martinussen M. Implementing new routines in adult mental health care to identify and support children of mentally ill parents. BMC Health Serv Res. 2014;14(1):58.

56. Grant A, Reupert A, Maybery D, Goodyear M. Predictors and enablers of mental health nurses' family-focused practice. Int J Ment Health Nurs. 2018. https://doi.org/10.1111/inm.12503.

57. Pårørendesenteret Stavanger. Om oss, et lavterskeltilbud for alle pårørende (About us, low treshold support for next of kin). Next of kin Centre, Stavanger. 1998. http://www.parorendesenteret.no/om-oss. Accessed 3 Dec 2018.

58. Goodyear M, Maybery D, Reupert A, Allchin R, Fraser C, Fernbacher S, et al. Thinking families: a study of the characteristics of the workforce that delivers family-focussed practice. Int J Ment Health Nurs. 2017;26(3):238–48.

59. Kufås E, Lund V, Rynning L. Foreldre med psykiske problemer. Om å styrke muligheter for vekst og redusere belastninger for barn og ungdom. I: AJW Andersen, & B. E. Karlsson (red.). Variasjon og dialog Perspektiver på psykisk helsearbeid. 2011.

60. O'brien L, Anand M, Brady P, Gillies D. Children visiting parents in inpatient psychiatric facilities: perspectives of parents, carers, and children. Int J Ment Health Nurs. 2011;20(2):137–43.

61. Foster KP, Hills D, Foster KN. Addressing the support needs of families during the acute hospitalization of a parent with mental illness: a narrative literature review. Int J Ment Health Nurs. 2018;27(2):470–82.

62. Lauritzen C, Reedtz C, Van Doesum K, Martinussen M. Factors that may facilitate or hinder a family-focus in the treatment of parents with a mental illness. J Child Fam Stud. 2015;24(4):864–71.

63. Fudge E, Falkov A, Kowalenko N, Robinson P. Parenting is a mental health issue. Australas Psychiatry. 2004;12(2):166–71.

64. Niemelä M, Paananen R, Hakko H, Merikukka M, Gissler M, Räsänen S. The prevalence of children affected by parental cancer and their use of specialized psychiatric services: the 1987 Finnish Birth Cohort study. Int J Cancer. 2012;131(9):2117–25. https://doi.org/10.1002/ijc.27466.

65. Fixsen D, Blase K, Naoom S, Van Dyke M. Stage-based measures of implementation components. Cell. 2010;727:409–1931.

66. Bumbarger BK, Campbell EM. A state agency-university partnership for translational research and the dissemination of evidence-based prevention and intervention. Adm Policy Ment Health. 2012;39(4):268–77. https://doi.org/10.1007/s10488-011-0372-x.

67. Fixsen D, Blase K, Metz A, Van Dyke M. Statewide implementation of evidence-based programs. Except Child. 2013;79(2):213–30.
68. Colquhoun HL, Squires JE, Kolehmainen N, Fraser C, Grimshaw JM. Methods for designing interventions to change healthcare professionals' behaviour: a systematic review. Implement Sci. 2017;12(1):30.
69. Ogden T, Bjornebekk G, Kjobli J, Patras J, Christiansen T, Taraldsen K, et al. Measurement of implementation components ten years after a nationwide introduction of empirically supported programs–a pilot study. Implement Sci IS. 2012;7:49. https://doi.org/10.1186/1748-5908-7-49.

Paper 3

Predictors of family focused practice:

organisation, profession, or the role as

child responsible personnel?

Bjørg Eva Skogøy[1,2], Terje Ogden[3,4], Bente Weimand[5,6], Torleif Ruud[5,7], Knut Sørgaard[1,2], Darryl Maybery[8]

[1] Nordland Hospital Trust, Kløveråsveien 2, 8092 Bodø, Norway
[2] The Faculty of Health Science, UiT, The Arctic University of Norway, Box 6050, 9037 Tromsø, Norway
[3] Norwegian Center for Child Behavioral Development, Unirand, Box 7053 Majorstuen, 0368 Oslo, Norway
[4] Institute of Psychology, University of Oslo, Box 1171 Blindern, 0318 Oslo, Norway
[5] Department for Research and Development, Mental Health Services, Akershus University Hospital, Box 1000, 1478 Lørenskog, Norway
[6] Faculty of Health Sciences, Department of Nursing and Health Promotion, OsloMet – Oslo Metropolitan University, P.O. Box 4 St. Olavs plass, 0130 Oslo, Norway
[7] Institute of Clinical Medicine, University of Oslo, Box 1171 Blindern, 0318 Oslo, Norway
[8] Monash University Department of Rural Health, Box 973, Moe, Victoria 3825, Australia

Corresponding Author: Bjørg Eva Skogøy, Nordland Hospital Trust, Kløveråsveien 1, 8002 Bodø. E-mail: Bjorg.eva.skogoy@gmail.com.
Bente.weimand@ahus.no, Ksorgaar@icloud.com, Darryl.Maybery@monash.edu,
Torleif.Ruud@medisin.uio.no, ogden@online.no

Abstract

Background: Health professionals in Norway are required by law to help safeguard information and follow-up with children of parents with mental or physical illness, or who have substance abuse problems, to reduce their higher risk of psychosocial problems. Knowledge is lacking regarding whether organisation and/or worker-related factors can explain the differences in health professionals' ability to support the families when patients are parents.

Methods: Employing a translated, generic version of the Family Focused Mental Health Practice Questionnaire (FFPQ), this cross-sectional study examines family focused practice (FFP) differences in relation to health professionals' background and role (*N*= 280) along with exploring predictors of parent, child, and family support.

Results: While most health professions had begun to have conversations with parents on children's needs, under one-third have had conversations with children. There were significant differences between nurses, social workers, psychologists, physicians, and others on seven of the FFP subscales, with physicians scoring lowest on five subscales and psychologists providing the least family support. Controlling for confounders, there were significant differences between child responsible personnel (CRP) and other clinicians (C), with CRP scoring significantly higher on knowledge and skills, confidence, and referrals. Predictors of FFP varied between less complex practices (talking with parents) and more complex practices (family support and referrals).

Conclusion: The type of profession was a key predictor of delivering family support, suggesting that social workers have more undergraduate training to support families, followed by nurses; alternately, the results could suggest that that social workers and nurses have been more willing or able than physicians and psychologists to follow the new legal requirements. The findings highlight the importance of multidisciplinary teams and of tailoring training

strategies to health professionals' needs in order to strengthen their ability to better support children and families when a parent is ill.

Keywords: family focused practice, children as next of kin, children of ill parents, parental illness, professional differences, child responsible personnel, policy changes, legislation.

Background

Parental health and well-being are vital in the family context. Thus, physical and mental illnesses and substance abuse problems in a parent may negatively impact children in different ways: family context is a predictor of developing mental health problems (1), and genetic and environmental risks to children are associated with parental mental illness and substance abuse problems (2-4). Evidence suggests that children whose parents have a mental illness have almost double the chance of developing a mental illness themselves (4, 5). Parental physical illness also has a significant impact on children's everyday lives and psychosocial adjustment (6-8), as well as an increased risk of substance abuse, mental ill-health, and criminality for one-third of children with severe parental cancer (4).

The problem also has economic implications for society. For example a register study has shown that 8% of Swedish children experienced a parent's hospitalisation with mental illness during their childhood (4). In adulthood, these 8 % children of next of kin had developed more problems than children of parents without mental health problems and accounted for 25% of society's annual costs of mental illness and addiction to alcohol and/or drugs (4). If the prevalence of mental illness were the same for children as next of kin as for children in the rest of the population, societal costs would substantially decrease (4).

Since 2010, health professionals' duties to support minors as next of kin have been enshrined in the Norwegian Health Personnel Act § 10 a (9, 10). Health professionals treating patients with mental illness, substance abuse problems, or severe physical illness or injury are

required to 'a) register minor children in the patient's health record, b) have conversations with the parent about children's need for information and support, c) offer help in family information-sharing and conversations with children, d) ensure that children can visit parents at the hospital, e) assess children's and the family's needs, and f) gain parents' consent to cooperate with other services in establishing necessary support' (11:2).

The Norwegian regulations have similarities to Finnish (12) and Swedish legislation (4, 13) and are in line with international recommendations to include family-focused, family-centred, family-based, family-oriented, family-inclusive, or child-centred practices to support children whose parents have mental illness (14-22), substance abuse problems (23-26), or physical illness (27-29). The term 'family' may refer to the family of origin or the family of procreation (30). This article focuses on the family of procreation: the patient/parent with an illness, the other parent /partner, and the patient's children.

Maybery and Reupert (31) explored FFP in a literature review and developed a measure to study barriers and enablers of the mental health workforce's ability in FFP (32, 33). The theoretical perspective (33) has been informed by the literature on family-centred practice, with the origin based on Dunst (34). FFP describes a continuum of practices to support the whole family unit, both the parents and the children (14, 20).

In this study, we explore FFPs as required by the new legislation (9, 10), regarding children as next of kin, which in 2017 was supported by research-based national guidelines on next of kin (children and adults) for Health and Care Services (35).

Positive effects of family focused interventions

There is increasing evidence of the positive effects of family focused interventions when parents are ill. A meta-analysis of 13 individual, group, and family interventions for families with parental mental illness has found a reduced risk of children developing the same

illness as their parents by 40% (36). These interventions have been found to increase

parenting skills, strengthen knowledge of parents' mental disorders, and strengthen resilience

factors among adolescents (36).

Systematic reviews of prevention programs for the children of parents with substance

abuse problems (26, 27) have found preliminary evidence on reducing children's problems

and improvements in positive behaviours, coping skills, and feelings, especially in longer

programs that involved both parents and children (26).

Similarly, a systematic review of 19 psychosocial interventions for families with

parental cancer found most interventions helpful (37). The interventions were found to

support more open communication in the families and children reported to talk more openly

about parental illness and have better coping strategies (37). Studies also showed

improvements in parents' and children's quality of life, mental health or distress (37).

Change agents to promote FFP

Change agents (38) or champions (39) have been found to play an important role in

innovative practice, and an internal organisational champion increases the likelihood that a

new practice is implemented (40, 41). Rogers (39:992) has defined a champion as 'an

individual who devotes his/her personal influence to encourage adoption of an innovation'.

Fixsen et.al. (42:14) have defined purveyors, also called change agents or implementation

teams (43), as 'an individual or group of individuals representing a program or practice who

actively work to implement that practice or program with fidelity and good effect'. To

implement a new policy, policy makers often try to identify champions who could become

local change agents within the organisations (44).

As part of the changes in legislation in Norway, Specialised Health Services are

obligated to have CRP to promote and coordinate health professionals' support of parents, in

their parental role, and of their children (9). Across Norwegian hospitals, we found that 1,429

health professionals were appointed to the CRP role (as part of their ordinary position), usually one or two per unit (11, 45). To coordinate training and supervision, hospital coordinators (H-CRP) have been established, usually in a 20-50% role as part of another position (46).

Other countries have also used change agents to implement changes in legislation and encourage FFP. In Finland, a 'train the trainers model' was developed to make clinicians 'early adopters'(39) and interest personnel in expanding the work (47). Like Norway, in 2010, Sweden appointed children`s representatives/spokespersons (Barnrättsombud/barnombud) in hospitals to support the development and implementation of legal changes (48). In Victoria, Australia, the Families Affected by Mental Illness (FaPMI) strategy has created FaPMI coordinators across 11 regions to organise training and networking that encourage FFP (21).

Differences in FFP between professions

Despite the need for family focused interventions, it has been shown that different professions provide different levels of FFP (49, 50). Differences in learning needs have been found (51), and mental health nurses, psychologists, and physicians want more knowledge on how mental illness can affect the parenting role and on how to support families. Australian social workers in adult mental health services have been found to be more confident in working with families, parents, and children and provide FFP than psychiatric nurses (49). Additionally, both social workers and psychologists provided more direct family support (e.g., psychoeducation and family meetings) and referrals than psychiatric nurses did (49). In Thailand, social workers in mental health services provided more FFP than psychiatric nurses, psychologists, and psychiatrists did, with social workers referring more to other services than nurses and psychologists (50). Participants who had received previous family and child-focused training scored highest (50).

In Germany, many physicians treating parents with cancer were reluctant to refer families to Children of Ill Parents (COSIP) therapists (52), and physicians concerns about their own resources and patients' well-being were common problems in the implementation of preventive mental health services for children of physically ill parents in European countries (29). In Norway, general practitioners who were positive to support to children, often forgot to address the children's needs or were afraid of increasing the parent's feelings of guilt and shame (53).

More generally, the organisational culture and climate has been associated with clinicians' attitudes to adopt evidence-based practices (EBP) (54). Aarons et al. (54) have found four dimensions in clinicians' attitudes towards EBP: the intuitive appeal, the perceived difference between the current and the new practice, the likelihood of following new institutional requirements, and general openness to learning new practices.

Facilitators and predictors of FFP

Both organisation-related and worker-related factors have been associated with health services' possibilities of providing family support. Organisation-related factors such as establishing mentoring and supervision have been found to be important enablers of family focused practice (31, 55, 56), and co-worker support and time predict family support (55). Location (e.g., a rural area) has been identified as a predictor of family support, with services available predicting referrals (55). A number of worker-related predictors of family and parenting support have been identified; knowledge and skills, further training, and connectedness predict family support, while skills and knowledge, connectedness, and engagement with family members predict referrals (55).

Well-trained and rurally located practitioners have been found to predict FFP (57), as well as knowledge and skills, followed by confidence (58). Practitioners' gender, age, and length of experience have also been found to have an impact, but the results differ. Some

studies have found that younger health professionals with medium education have more positive attitudes toward supporting mentally ill parents in their parental role and supporting their children (59), and more inexperienced psychiatric nurses were more likely to support service users' children (60). Other research has found that female, older, married, and experienced mental health nurses engaged themselves more in FFP (61), and their own parenting experiences were a key predictor (58).

Effective collaboration with clinics and institutions, location, intervention characteristics, and provision of information about support services can facilitate families' use of psychosocial support services (37). Support as part of routine care, as well as having a contact person in clinics, could facilitate the use of support for patients and families (29, 52, 62).

While numerous barriers FFP and the use of psychosocial support have been identified in previous research (20, 31, 37, 55, 56, 59, 61), less is known about factors that facilitate and predict health professionals' ability to engage in FFP, particularly in relation to new policies and guidelines, such as those recently introduced in Norway.

A few studies have identified differences in professional background related to performing FFP (49, 50). Some smaller studies have also discussed the new role of the CRP within mental health services (63-65). Studies of parental cancer, meanwhile, have identified facilitators of using psychosocial support (37), but earlier studies of predictors of FFP have been limited to mental health services. Some studies have explored predictors of FFP (55, 57-59); however, these have not included professional background as a predictor of FFP, and they are also limited in their explanations of lower levels of variance (55).

To date, no research has studied the relative importance of organisation-related factors and worker-related factors of FFP, in addition to demographics, professional background, and the role of CRP as predictors of FFP. The present study is also the first to include health

professionals from mental health, physical health, and substance abuse settings regarding FFP. Such information is important to be able to develop training programs and tailor improvement strategies to health professionals' needs.

Aims

The first aim was to analyse and compare differences of FFP in personnel with different professional backgrounds; second, this study analyses and compares differences of FFP between health professionals appointed to the role of CRP and other clinicians. Finally, the third aim was to explore predictors of FFP among health professionals.

Method

Design

This study was part of an exploratory, cross-sectional, multi-centre study, the Children of Ill Parents (CHIP)-study (45), with data collected from patients that were parents, the other parent/adult (66-69), children and adolescents (8-18years) (69-72), children's teachers, health professionals treating the ill parents, health professionals in the role of CRP, managers/ leaders, and hospital coordinators (H-CRP) (11, 46).

In the current study, only data from health professionals about their FFPs are reported.

Context

The five hospitals in this study serve 34% of the total Norwegian population of 5.2 million. Hospital 1 (H1) serves 136,000 inhabitants, H2 serves 290,000, H3 serves 358,000, H4 serves 480,000, and H5 serves 493,000 (73). Hospital 1 is the smallest hospital and provides health services to a large rural area, while Hospitals 3 and 5 are university hospitals.

Sample

The 280 health professionals who participated in the current study were recruited from stratified, randomly selected inpatient and outpatient units at the five hospitals from mental

health, physical health (cancer and neurology), and substance abuse units for adult patients. The first group was health professionals who were CRP (n = 104, 72% response rate), one per unit. The second group consisted of other clinicians (C), (n = 176, 52% response rate) treating patients who were recruited for the larger part of the CHIP study. Among these, 32 were also CRP, who were added to the CRP above, resulting in two groups of health professionals, CRP (n = 136) and C (n = 144).

The participants were mostly female with significant experience, with more nurses and psychologists participating than social workers, physicians, and others (Table 1). Other participants included family therapists, physiotherapists, occupational therapists, hospital chaplains, and nurse assistants.

There were significant differences between CRP and other clinicians (C) based on gender, professional background, and specific training. Of the CRP, there were more women and fewer physicians and psychologists, and the CRP had received more specific training after the changes in legislation.

Table 1 insert here

Data collection

The data was collected from June 2013 to December 2014; health professionals received an e-mail invitation with reminders. A link and password to the electronic questionnaire were distributed after informed confirmation of participation, and the participants gave a written consent on the first page of the survey.

Measure

The measure employed in this study was adapted from the Family Focused Mental Health Questionnaire (33) and is based on a literature review (31, 32). The questionnaire has been employed in Australia, specifically in regard to FFP in relation to parental mental health problems (49, 74, 75), and in Ireland (56), Thailand (50), and Norway (11, 59, 76). The 49-

item measure with 17 subscales (33) employs a seven-point Likert Scale. Scores ranged from 1 to 7, from *strongly disagree* = 1 to *strongly agree* = 7, in addition to *not applicable* (N/A).

The measure was translated into Norwegian following the steps of back-translations (77) and made generic in order to focus on health professionals' work with parents affected by all kinds of illnesses (11).

In the introduction to the generic version of the questionnaire it was stated that the aim was to explore *family focused practice* as required by the new Norwegian legislation, and included *all types of illnesses* (mental, physical, and substance abuse), and the questionnaire was slightly reworded (e.g. mental illness was replaced by illness) (11). The questionnaire was tested for content validity in a sample of experts in this area, and a pilot study was conducted to test the clarity of the questions and the layout in a group of health professionals and user consultants (11).

The reliability of the measure was analyzed using Cronbach's alpha with SPSS (version 24). Scale Reliability Analysis suggested the deletion of three items before the factor analysis, which gave higher reliability on three of the scales (need training, confidence, and family support). The reliability of the subscales ranged from .17 to .80, with seven scales scoring below .60 (11), which confirmed low scores on three subscales the developers also found (33). In this article, we report only the 10 subscales (31 items) that scored over .60 (78, 79): workplace support: .67, co-worker support: .62, service available: .62, family support: .67, referrals: .69, and five that scored over .70: connectedness: .71, confidence: .72, need training: .74, knowledge and skills: .76, time and workload: .80.

Health professionals were also asked three additional questions: 1) how many conversations they had with parents, 2) how many conversations they had with children, and 3) how many parents had refused conversations with their children in the last two months. These were rated as follows: *none = 0, one to two =1, three to five = 2, over five = 3.* Health

professionals were also asked if they had participated in specific training to deliver FFP according to the changes in the law. These where rated *no = 0, to some degree = 1, yes = 2*.

Analysis

The electronic questionnaire did not allow any missing values. Most subscales had less than 5% for N/A, except for *family support* and *referrals*, indicating that family support and referrals were not appropriate or necessary for some families. The N/As were not included in the regression analysis.

Descriptive statistics and chi-square tests were used to calculate differences of demographics and professional background between CRP and other clinicians (table 1).

A one-way between-groups analysis of variance (ANOVA) was conducted to determine the impact of professional background on FFP, as measured on the FFPQ (table 2). Descriptive statistics and chi-square tests were used to determine the impact of professional background on health professionals having conversations with parents, children, and parents refusing conversations (table 3). Next, a two-way between groups analysis of covariance (ANCOVA) was performed to determine health professionals' role (CRP and C) on the level of FFP, controlling for the demographics, professional background, and having received specific training. Professional backgrounds were coded as dummy variables, with 'nurse' as the reference category. There was no statistically significant interaction effect between the role of personnel and hospitals on any of the subscales; therefore, differences between CRP and C are reported here (table 4).

Finally, correlations between 16 organisation-related and worker-related factors, used as independent variables (IV), and five practice-related behaviours, used as dependent variables (DV), were explored, followed by a multiple regression analysis (table 5). The length of experience was included as IV, but not age, because these were highly correlated (r

= .88). As there should be 10-15 cases per predictor (80), using a parameter of 16 independent variables and 280 cases should have been suitable for the regression analysis.

Results

Differences of FFP on professional background

The ANOVA showed significant differences between the type of professional background on seven FFP subscales; see table 2. Physicians scored the lowest on five subscales: time for family work, services available, skills and knowledge, connectedness, and referrals; however, they had moderate scores on family support. Social workers scored significantly higher on family support than psychologists, physicians, and others, with nurses scoring higher on family support than psychologists. Both social workers and nurses scored significantly higher on referrals than psychologists and physicians.

Table 2, insert here

Differences in conversations with patients as parents, their children, and parents refusing conversations with their children

Descriptive statistics showed that most health professionals had begun having conversations with parents about children's needs, but only one-third have had conversations with children. There were differences between the types of professions regarding how many conversations they had with parents, but these were slightly not significant.

Table 3, insert here

Differences in FFP between CRP and other clinicians

In the ANCOVA, when controlling for demographics, there was a significant difference between CRP and other clinicians on three subscales: knowledge and skills, confidence, and referrals; see table 4. The effect sizes were in a medium range (0.10 = small, 0.25 = medium, 0.40 = large) (81). Other significant effects for *skills and knowledg*e included

age, specific training, and type of hospital. There were no other significant effects for *confidence*. Other significant effects for *referrals* were specific training and professional background, with social workers providing significantly more referrals than nurses.

Table 4 insert here

Predictors of FFP behaviours

The five family focused practice behaviours (family support, referrals, conversations with parents, conversations with children, and parents refusing conversations with children) were used as dependent variables, and 16 organisation-related and worker-related factors served as independent variables.

Correlations between variables

There were significant, positive associations between family support and referrals ($r = .59$), conversations with parents and conversations with children ($r = .42$), and conversations with children and family support ($r = .36$). In addition, parents refusing conversations with their children was significantly associated with conversations with parents ($r = .38$), family support ($r = .36$), and knowledge and skills ($r = .23$). The five FFP behaviours were significantly and positively associated with many of the organisation-related and worker-related variables, with the highest associations to knowledge and skills, connectedness, confidence, and gender (female).

Regression analyses

Regression analyses were conducted by employing five dependent variables; they are shown in Table 5 below. Only the significant predictors are shown. Additional tables with all predictors included are available in the Additional File 1, Tables 5a-e.

Building on Maybery et al.'s model of organisation-related factors as a basis of family support (31, 55), these factors (workplace support, co-worker support, time for family work, and service available) were included first (model 1) before adding the worker-related factors:

profession (nurse, social worker, psychologist, physician, and others, model 2), role (CRP or C, model 3), demographics (gender and length of experience, model 4), and other worker-related factors (knowledge and skills, connectedness, confidence, and need training, model 5).

Table 5, insert here

In regard to health professionals having conversations with parents about children's needs, the multiple linear regression analysis indicated an equation of $F(16.216) = 4.861$, $p < .001$, with R^2 of .270 and adjusted R^2 of .211 for the largest model. In this model, 21% of the variance was explained, with 5% explained by organisation-related factors, and the additional 16% explained by the worker-related factors. The significant predictors in order of weight (beta values) were knowledge and skills, length of experience (lower), and gender (female).

For health professionals having conversations with children, the multiple linear regression analysis indicated an equation of $F(16.216) = 2.762$, $p < .001$, with R^2 of .170 and adjusted R^2 of .109 for the largest model. In this model, 11% of the variance was explained, with 6% explained by organisation-related factors, and the additional 5% explained by worker-related factors.

Concerning parents refusing conversations with children, the multiple linear regression analysis indicated an equation of $F(16.216) = 2.566$, $p < .001$, with R^2 of .158 and adjusted R^2 of .095 for the total model. In this model, 10% of the variance was explained, with 2% explained by organisation-related factors, and the additional 8% explained by worker-related factors. The significant predictors in order of weight (beta values) were knowledge and skills, and gender (female).

The multiple linear regression analysis of health professionals delivering family support indicated an equation of $F(16.201) = 12.294$, $p < .001$, with R^2 of .495 and adjusted R^2 of .454 for the total model. In this model, 45 % of the variance was explained, with 33% explained by organisation-related factors and the additional 12% explained by the worker-

related factors. The significant predictors in order of weight (beta values) were time for family work, specific training, being a social worker, not being a psychologist, co-worker support, connectedness, and gender (female).

For health professionals making referrals for children or families, the multiple linear regression analysis indicated an equation of $F(16.186) = 9.122$, $p < .001$, with R^2 of .435 and adjusted R^2 of .387 for the total model. In this model, 39% of the variance was explained, with 31% explained by the organisation-related factors, and the additional 8% explained by worker-related factors. The significant predictors in order of weight (beta values) were service available, knowledge and skills, and being a social worker.

In summary, worker-related factors such as knowledge and skills and gender (female) were key predictors of having conversations with parents and parents refusing conversations with children, with knowledge and skills also predicting referrals. Specific training and gender (female) predicted family support. Profession was also a key predictor of family support and referrals, but the role of being CRP did not predict either family support or referrals. The only predictor of having conversations with children was the organisation-related factor co-worker support. Both organisation-related factors and worker-related factors were key predictors of family support and referrals, with more of the variance explained by organisation-related factors than by worker-related factors.

Discussion

This is the first study to investigate FFP of health professionals in all types of services (mental health, physical health, and substance abuse). There were significant differences between nurses, social workers, psychologists, and physicians on seven of the FFP subscales, with overall better scores from social workers and nurses.

In addition, when health professionals appointed to the role as CRP were compared to other clinicians (controlling for demographics, professional background, and specific

training), CRP scored significantly higher on three subscales: knowledge and skills, confidence, and referrals. Significant predictors of FFP varied between the less complex practices (talking with parents) and the more complex (family support and referrals).

Differences of FFP in professional background

One reason for the higher number of conversations with parents about children's needs than having child and family conversations may be that health professionals (especially the physicians and psychologists) perceive this practice as less different from their current practice, and it may have more intuitive appeal, both of which are important aspects of health professionals having positive attitudes to delivering new EBPs (54).

Compared to other countries, Norwegian nurses (in all types of services) scored higher overall on FFP and delivered more family support and referrals than mental health nurses in Ireland (56), Thailand (50), and Australia (49). While social workers in other countries were found to score higher on FFP than other professions (49, 50), an interesting finding is that both social workers and nurses in Norway gave more family support than psychologists, and they also made more referrals than both psychologists and physicians. Physicians scored the lowest on many of the FFP subscales but had moderate scores on family support. It is possible that nurses in Norway have more family focus in their undergraduate training than in other countries, or that they have responded more rapidly to the requirements of the changes in the law compared to health professionals with a longer education.

Another possibility is that physicians and psychologists may rely more on their autonomous decision-making or may be more reluctant to meet new requirements, which is in line with implementation studies of evidence-based practices, in which practitioners with higher levels of education scored lower on new requirements (54, 82, 83).

Alternatively, physicians and psychologists may consider that they have less time to support families or may not consider it an important component of their role with patients. As

professions, physicians and psychologists in the hospitals may be more likely to have their primary focus on 'the identified patient', so that the expectation to consult with children would be a significant deviation from their usual practice and role. By contrast social workers may be more likely to see 'the patient as part of the family context', with the new legislative expectations being more like their usual practice. This may be an important focus for future research.

Differences of FFP on health professionals' roles

Trying to change the entire workforce to deliver more FFP is difficult, and one particular approach to implementing the new legislation in Norway was to require hospitals to appoint CRP to promote and coordinate support given by health professionals to parents in their parental role and to their children. As expected, according to their role, CRP had received significantly more specific training than the other clinicians. Notably, CRP included more nurses and social workers.

This study showed significant differences between the two groups (C and CRP) on the FFP subscales knowledge and skills, confidence, and referrals, controlling for demographics, type of hospital, and whether they had received specific training about health professionals' new legislative duties. The findings indicate that CRP are selected for this role, and that highly skilled and motivated champions may have volunteered or been appointed by their leaders to take on the role of change agent. In accordance with their new role, this suggests that the CRP are in a position to supervise and support other health professionals in family and child conversations, and they have the potential to spread FFP within the hospitals.

Qualitative studies from mental health services in Norway have found that CRP develop their role differently; some are 'watchdogs' for colleagues trying to promote parents' and children's needs (64, 84), while others develop a 'family expert' role, taking on most family work themselves, or they can experience their work as a lonely, 'unclear role' (64, 85).

The current study (four years after the policy changes) contrasts with some of the earlier findings, and do not indicate that CRP take most family work themselves. This supports other findings from the CHIP study, in which 80% of health professionals said that CRP kept them updated about legislation and guidelines, and 52% said that CRP supported them in family conversations (45). CRP scored significantly higher than other health professionals on referring children and families for further support, which is in line with 86% of CRP stating that they are highly knowledgeable about other services available (45). This suggests that many CRP have developed an 'information and supervision' role, and they are in a position to motivate and support other health professionals, in addition to taking action when children and families need further support.

However, one weakness is that fewer psychologists and physicians have this type of role. Change agents within their own profession may have more potential to strengthen the spread of FFP among their peers (63).

Another part of CRP's role is to systematise hospitals' follow-up regarding the new law and guidelines. As most hospitals have hospital coordinators (H-CRP) and one or two CRP in each unit (45, 46), CRP are in a unique position to systematise the work in their unit together with their leaders. Leadership and resources to establish inner support and to collaborate with outer systems have been found to be key predictors of implementation satisfaction (46), and H-CRP play an important role in systematising the hospitals' work and collaboration with external systems (46).

Predictors of FFP behaviours

Significant predictors of FFP varied between the less complex (talking with parents) and the more complex practices (family support and referrals).

The most important predictor for having conversations with parents regarding their children's needs was perceived skill and knowledge. Having received specific training and

being able to determine connectedness (parental awareness of child connectedness) were key predictors of family support. This highlights the importance of the knowledge and skills needed to be able to support parents and families, which is consistent with previous research (55, 57, 58).

The second predictor of conversations with parents was length of experience. This finding suggests that newly trained (and younger) health professionals are more open to the changes in law, which supports other research showing that younger health professionals have more positive attitudes to supporting mentally ill parents and their children (59).

However, the more complex behaviour of delivering family support is not associated with being newly trained or with younger health professionals. Another notable finding is that women had more conversations with parents and delivered more family support. This partly supports earlier studies, in which female, older, married, and experienced mental health nurses engaged themselves more in FFP (61).

Co-worker support was the only significant predictor of having conversations with children, and it was also a significant predictor of family support, which aligns with earlier research (55, 58). This indicates that conversations with children and families are better achieved if health professionals have the opportunity for supervision and work in multidisciplinary teams. The implementation literature (42, 86) and studies on FFP confirm this finding (31, 47, 87, 88). To establish supervision, leadership support and resources are needed (46). Other organisation-related predictors of family support and referrals were that the health professionals had time for family work and that services were available to refer children and families to for further support, which also aligns with existing research (55).

In sum, these findings highlight that family support, such as psychoeducation and having family meetings, is more complex than having conversations with parents regarding children's needs. To some degree, this is a unique finding that highlights that not all FFPs are

the same. To increase family support and referrals for additional support, it is important to address a number of organisation-related and worker-related factors. Future research could expand this study to examine the requirements for different types of FFPs.

Strengths and limitations

A key strength of the study is that the two groups of personnel were recruited from stratified, randomly selected inpatient and outpatient units, from mental health, substance abuse, and physical health in five hospitals that covered 34% of the population, which suggests that the findings could be generalised across hospitals in Norway (11, 46).

A potential weakness was that the response rate for CRP was high (73%), but lower (52%) for the second sample of clinicians who were responsible for treating patients recruited for the larger part of the CHIP study (11). Health professionals in the second group may have been less interested to contribute on this topic, or the lower participation, especially from the psychologist and physicians, may be caused by higher workload (11). Moreover, the FFP data relied on personnel self-reports, which may not reflect actual practice. Another limitation was the unequal sample size across groups of health professions ($n = 32$ -101), which may decrease the probability of finding statistically significant evidence in the smaller groups (89).

A strength is that the Family-Focused Mental Health Questionnaire has been used in other countries, which creates the ability to compare outcome differences, although some caution should be exercised in comparing concepts across countries (90). Only 10 of the 17 subscales had high enough reliability to be further analysed in this study (78), which contributes to knowledge on the weaknesses of some subscales (33, 56, 75, 91) and provides useful information on refining the measure.

As this is a cross-sectional study, it is important to notice that the relationship found in the regression analysis may not be causal. Another important weakness is the lower levels of variance explained by the regression equation for conversations with parents (21%),

conversations with children (11%), and refusals of conversations with children (10%), while the variance explained for family support (45%) and referrals (39%) was considerably higher. This suggests that there may be other characteristics that could have been explored, such as a) types of clinics (inpatient or outpatient), b) types of services (substance abuse, physical health, and mental health), c) characteristics of the illness (acute or long-term), d) workers' background (e.g., parenting status), and e) characteristics of the families (e.g., age of children), which may be important for the levels of conversations with parents, children, and families. These weaknesses in including possible predictors may be areas for future research.

Conclusion

There were clear differences in FFP, with generally better scores from social workers and nurses than from psychologists and physicians, which highlights the need for multidisciplinary teams and to strengthen FFP in undergraduate and postgraduate training, especially for psychologists and physicians. CRP scored higher than other clinicians on knowledge and skills, confidence, and referrals, controlling for confounders such as having received specific training. This suggests that highly skilled and motivated champions have been appointed to this change agent role. Establishing this new role may provide important contributions on supervision, especially as co-worker support was the only predictor of having conversations with children. Predictors of FFP varied between the less complex (talking with parents) and the more complex practices (family support and referrals). Both organisation-related factors and worker-related factors were key predictors of family support and referrals, and organisation-related factors explained more of the variance. The findings highlight the need to secure both organisation-related factors and worker-related factors to be able to support families and children. This study confirms many of the predictors of family support and referrals previously found in mental health studies, suggesting that these factors are also valid across different types of services in hospitals.

List of Abbreviations

C: Clinicians, CHIP study: Children of Ill Parents study, CRP: Child Responsible Personnel, EBP: Evidence-Based Practice, FFP: Family Focused Practice, FFPQ: Family Focused Mental Health Practice Questionnaire, H-CRP: Hospital coordinators

Declarations

Acknowledgements

Availability of data and materials

Data is stored at the Akershus University Hospital. The datasets generated and/or analysed during the current study are not publicly available as it is part of a PhD thesis, and the candidate currently works with the remaining data, but are available from the corresponding author on reasonable request.

Authors' contributions

BES designed the study, performed data collection and the statistical analysis, and drafted the manuscript. BW participated in the study's design and assisted in data collection. TR was the project manager in the multi-centre study of which this study is a part. KS and DM co-supervised the design of the study, and TO was the main supervisor in the design. All authors helped in drafting the manuscript and read and approved the final manuscript.

Ethical approval and consent to participate

The study was approved by the Regional Committee on Medical and Health Research Ethics South-East (reg. no. 2012/1176) and by the Privacy Ombudsman in each of the five hospitals. Participants received an informational letter and gave their written consent to participate before answering the questionnaire.

Consent for publication

Not applicable

Competing interests

The authors declare that they have no competing interests.

Tables

Table 1

Descriptive statistics of Demographics and Professional background on Child Responsible Personnel (CRP) and Other Clinicians (C), N=280

	Total	CRP (*n*=136)	C (*n*=144)	*p*
Age (SD)	45.4(10.2)	45.53(9.90)	45.31(10.45)	.854
Yrs experience (SD)	18 (10.1)	19(10.04)	17(10.17)	.243
Yrs in post (SD)	6.1(5.6)	6.61(5.98)	5.61(5.25)	.138
Gender				
Women (%)	224 (80)	122 (90)	102 (71)	.001*
Men (%)	56 (20)	14 (10)	42 (29)	.001*
Profession				
Nurse (%)	101(36.1)	64 (47.1)	37(25.7)	.001*
Psychologist (%)	71(25.4)	17(12.5)	54(37.5)	.001*
Social worker (%)	42(15.0)	31(22.8)	11(7.6)	.001*
Physician (%)	32(11.4)	1(0.7)	31(21.5)	.001*
Other (%)	34(12.1)	23(16.9)	11(7.6)	.018*
Specific training				.000*
No (%)	95 (34.2)	32 (23.5)	63(43.8)	CRP<C
Some degree (%)	80 (28.6)	33 (25.0)	46 (31.9)	
Yes (%)	105 (37.8)	70 (51.5)	35 (24.5)	CRP>C

Note, * *p* < .05

Table 2

Mean differences (ANOVA) of Family Focused Practice Subscales on Professional Background

(N=280)

	Total	1 Nurse *(n=101)*	2 Psych. *(n=71)*	3 Physician *(n=32)*	4 SocWkr *(n=42)*	5 Other *(n=34)*		
	M(SD)	*M(SD)*	*M(SD)*	M(SD)	*M(SD)*	*M(SD)*	*p*	*Profession*
Organisation								
Workplace Support	4.51(1.54)	4.66(1.56)	4.48(1.44)	4.41(1.30)	4.07(1.86)	4.72(1.55)	.349	
Co-worker Support	5.05(1.13)	5.27(1.03)	5.09(.94)	4.68(1.19)	4.86(1.40)	4.91(1.26)	.064	
Time Family Work	4.48(1.45)	4.93(1.34)	3.96(1.36)	3.76(1.35)	4.86(1.37)	4.54(1.55)	.000*	1,4>2,3
Service Available	4.84(1.34)	4.89(1.32)	4.87(1.30)	3.91(1.23)	5.29(1.29)	5.00(1.35)	.000*	1,2,4,5> 3
Worker								
Knowledge Skills	4.90(.99)	5.00(.96)	4.87(.87)	4.19(1.23)	5.19(.72)	5.02(1.09)	.000*	1,2,4,5>3
Connectedness	5.12(.95)	5.13(.94)	5.28(.88)	4.58(1.10)	5.23(.81)	5.13(1.03)	.012*	1,2,4>3
Confidence	5.68(1.15)	5.88(1.02)	5.36(1.22)	5.24(1.23)	5.96(1.14)	5.84(1.06)	.003*	1>2
Need Training	5.42(1.05)	5.45(1.16)	5.41(1.01)	4.97(1.01)	5.44(.97)	5.44(.97)	.073	
Practice								
Family Support	3.85(1.24)	4.09(1.17)	3.03(1.05)	3,43(1.37)	4.65(1.18)	3.68(1.07)	.000*	4>2,3,5 1>2
Referrals	4.08(1.57)	4.31(1.51)	3.58(1.38)	3.09(1.47)	5.12(1.31)	4.31(1.61)	.000*	1,4,5>3 1,4>2

Note, * *p* < .05, FFPQ, range 1-7,

Table 3

Conversations with Parents, Children and Parents Refusing Conversations, Last Two Months
(N = 280)*

	Nurse	Psych.	Physician	SocWkr	Other	Total	χ^2	df	p
Conv. Parents							21.059	12	.050
0	21(20.8)	5(7.0)	4(12.5)	8(19.0)	6(17.6)	44(15.7)			
1-2	32(31.7)	20(28.2)	13(40.6)	8(19.0)	15(44.1)	88(31.4)			
3-4	24(23.8)	31(43.7)	10(31.3)	13(31.0)	5(14.7)	83(29.6)			
> 5	24(23.8)	15(21.1)	5(15.6)	13(31.0)	8(23.5)	65(23.2)			
Total	101(100)	71(100)	32(100)	42(100)	34(100)	280(100)			
Conv. Children							9.953	12	.620
0	70(69.3)	56(78.9)	23(71.9)	28(66.7)	25(73.5)	202(72.1)			
1-2	24(23.8)	10(14.1)	8(25.0)	9(21.4)	7(20.6)	58(20.7)			
3-4	7(6.9)	4(5.6)	1(3.1)	3(7.1)	1(2.9)	16(5.7)			
> 5	0(0.0)	1(1.4)	0(0.0)	2(4.8)	1(2.9)	4(1.4)			
Total	101(100)	71(100)	32(100)	42(100)	34(100)	280(100)			
Parents refused							9.088	12	.695
0	68(67.3)	41(57.7)	24(75.0)	27(64.3)	25(73.5)	185(66.1)			
1-2	27(26.7)	23(32.4)	7(21.9)	9(21.4)	6(17.6)	72(25.7)			
3-4	4(4.0)	6(8.5)	1(3.1)	4(9.5)	2(5.9)	17(6.1)			
> 5	2(2.0)	1(1.4)	0(0.0)	2(4.8)	1(2.9)	6(2.1)			
Total	101(100)	71(100)	32(100)	42(100)	34(100)	280(100)			

Note, χ^2 = chi-square,

Table 4

Differences in Family Focused Practice between C and CRP (ANCOVA), Controlling for Demographics,

Professional Background, Hospitals, and Receiving Specific Training (N= 280)

	C (*n*=144)	CRP (*n* = 136*)*					
	M (95 % CI)	*M* (95 % CI)	*Mean difference*	*df*	*t*	*eff. size*	*p*
Organization							
Workplace Support	4.68 (4.38-4.98)	4.31 (4.02-4.60)	-.370	1.235	2.604		.108
Co-worker Support	4.96 (4.75-5.18)	5.09 (4.88-5.31)	.126	1.249	.571		.451
Time Family Work	4.27 (4.00-4.53)	4.58 (4.31-4.84)	.310	1.246	2.296		.131
Service Available	4.80 (4.56-5.05)	4.94 (4.69-5.15)	.131	1.248	.478		.490
Worker							
Knowledge Skills	4.75 (4.58-4.92)	5.09 (4.92-5.26)	.339	1.249	6.615	.03	.011*
Connectedness	4.98 (4.81-5.16)	5.21 (5.03-5.39)	.228	1.250	2.855		.092
Confidence	5.45 (5.24-5.66)	5.91 (5.70-6.12)	.458	1.249	7.753	.03	.006*
Need Training	5.41 (5.22-5.61)	5.41 (5.22-5.60)	-.006	1.243	.001		.970
Practice							
Family Support	3.77 (3.55-4.00)	3.85 (3.62-4.07)	.073	1.218	.179		.672
Referrals	3.87 (3.58-4.15)	4.34 (4.04-4.64)	.475	1.208	4.395	.02	.037*
Conv. Parents	1.54 (1.48-1.85)	1.66 (1.48-1.85)	.123	1.258	.753		.386
Conv. Children	.30 (.18-.43)	.40 (.28-.53)	.101	1.258	1.099		.295
Parents Refusals	.40 (.28-.53)	.51 (.38-.64)	.105	1.258	1.129		.289

Note, *M* = adjusted means, controlling for covariates, * *p* < .05, FFPQ, range 1-7, Conversations with parents, children, and refusals, none = 0, one to two =1, three to five = 2, over five = 3.

Table 5

Predictors of Family Focused Practice Behaviours, Summary Table (N=280)

DV	Significant predictors	*B*	*SE B*	*β*	*Adj.R²*	*df*	*F*	*p*
Conversations	(Constant)	32.84	13.61		.211	16.216	4.861	.001
with parents	Knowledge Skills	.31	.09	.31				.001***
	Experience (low)	-.02	.01	-.18				.012*
	Gender (female)	.42	.15	.18				.006**
Conversations	(Constant)	7.18	9.95		.109	16.216	2.762	.000
with children	Co-Worker Support	.09	.05	.16				.039*
Parents refusing	(Constant)	-21.62	10.70		.095	16.216	2.566	.001
conv. children	Knowledge Skills	.23	.07	.32				.002**
	Gender (female)	.28	.12	.16				.018*
Family support	(Constant)	-11.03	20.60		.454	16.201	12.294	.000
	Time Family Work	.18	.05	.21				.001***
	Specific Training	.29	.09	.19				.001***
	Social worker	.65	.20	.19				.002**
	Psychologist (not)	-50	.20	-.18				.012*
	Co-worker Support	.16	.07	.14				.021*
	Connectedness	.18	.09	.14				.045*
	Gender	.38	.16	.13				.021*
Referrals	(Constant)	9.53	15.24		.387	16.186	9.122	.000
	Service Available	.33	.07	.29				.000***
	Knowledge Skills	.29	.14	.19				.041*
	Social worker	.60	.28	.14				.034*

Note, DV = dependent variables. Professions were represented as four dummy variables, with 'nurse' serving as the reference group. Only significant predictors are shown. *** $p < .001$, ** $p < .01$, * $p < .05$

References

1. Bayer J, Hiscock H, Scalzo K, Mathers M, McDonald M, Morris A, et al. Systematic review of preventive interventions for children's mental health: What would work in Australian contexts? Australian and New Zealand Journal of Psychiatry. 2009;43(8):695-710.
2. Hosman CM, van Doesum KT, van Santvoort F. Prevention of emotional problems and psychiatric risks in children of parents with a mental illness in the Netherlands: I. The scientific basis to a comprehensive approach. Australian e-Journal for the Advancement of Mental health. 2009;8(3):250-63.
3. Gladstone TR, Beardslee WR, O'Connor EE. The prevention of adolescent depression. Psychiatr Clin North Am. 2011;34(1):35-52.
4. Hjern A, Berg L, Arat A, Klöfvermark J, Manhica H, Rostila M, et al. Children as next of kin in Sweden. 2017.
5. Leijdesdorff S, van Doesum K, Popma A, Klaassen R, van Amelsvoort T. Prevalence of psychopathology in children of parents with mental illness and/or addiction: an up to date narrative review. Current opinion in psychiatry. 2017;30(4):312-7.
6. Pakenham KI, Cox S. The Effects of Parental Illness and Other Ill Family Members on the Adjustment of Children. Annals of behavioral medicine : a publication of the Society of Behavioral Medicine. 2014.
7. Ferm U, Nilsson S, Nolbris MJ, Linnsand P, Jonsson A. Impact of a Parent's Neurodegenerative Disease and Care on the Daily Life of Children. Caregiving and Home Care: InTech; 2018.
8. Uccelli MM. The impact of multiple sclerosis on family members: a review of the literature. Neurodegenerative disease management. 2014;4(2):177-85.
9. Helse- og omsorgsdepartementet. Ot.prp. nr. 84. (2008-2009) Om lov om endringar i helsepersonell loven m.m. (oppfølging av born som pårørande) (About changes in the Health Personnel Act, children as next of kin) Oslo: Norwegian Ministry of Health and Care Services; 2009.
10. Helsedirektoratet. Barn som pårørende (Children as next of kin) Oslo: Directorate of Health; 2010.
11. Skogøy BE, Maybery D, Ruud T, Sørgaard K, Peck GC, Kufås E, et al. Differences in implementation of family focused practice in hospitals: a cross-sectional study. International Journal of Mental Health Systems. 2018;12(1):77.
12. Solantaus T, Puras D. Caring for Children of Parents with Mental Health Problems — A Venture into Historical and Cultural Processes in Europe. International Journal of Mental Health Promotion. 2010;12(4):27-36.
13. Nationellt kompetenscentrum anhoriga. Om vårt uppdrag (About our mission - National competence centrum next of kin) Nka2014 [Available from: http://www.anhoriga.se/anhorigomraden/barn-som-anhoriga/om-oss/.
14. Foster K, Maybery D, Reupert A, Gladstone B, Grant A, Ruud T, et al. Family-focused practice in mental health care: An integrative review. Child & Youth Services. 2016;37(2):129-55.
15. Goodyear M, Hill TL, Allchin B, McCormick F, Hine R, Cuff R, et al. Standards of practice for the adult mental health workforce: meeting the needs of families where a parent has a mental illness. Int J Ment Health Nurs. 2015;24(2):169-80.
16. Beardslee WR, Gladstone TRG, Wright EJ, Cooper AB. A Family-Based Approach to the Prevention of Depressive Symptoms in Children at Risk: Evidence of Parental and Child Change. Pediatrics. 2003;112(2):e119-e31.
17. Beardslee WR, Wright EJ, Gladstone TRG, Forbes P. Long-term effects from a randomized trial of two public health preventive interventions for parental depression. Journal of Family Psychology. 2007;2007(21):703-13.
18. Beardslee W, Lester P, Klosinski L, Saltzman W, Woodward K, Nash W, et al. Family-centered preventive intervention for military families: implications for implementation science. Prevention science : the official journal of the Society for Prevention Research. 2011;12(4):339-48.

19. Falkov A, Goodyear M, Hosman CMH, Biebel K, Skogøy BE, Kowalenko N, et al. A systems approach to enhance global efforts to implement family-focused mental health interventions. Child & Youth Services. 2016;37(2):175-93.

20. Maybery D, Foster K, Goodyear M, Grant A, Tungpunkom P, Skogøy BE, et al. How can we make the psychiatric workforce more family focused? In: Reupert A, Maybery D, Nicholson J, Gopfert M, Seeman M, editors. Parental psychiatric disorder: Distressed parents and their families. 3rd Edition: Cambridge University Press; 2015.

21. Nicholson J, Reupert A, Grant A, Lees R, Maybery D, Mordoch E, et al. The policy context and change for families living with parental mental illness. Parental psychiatric disorder: Distressed parents and their families. 2015:354-65.

22. Solantaus T, Paavonen EJ, Toikka S, Punamäki RL. Preventive interventions in families with parental depression: children's psychosocial symptoms and prosocial behaviour. European Child and Adolescent Psychiatry. 2010:1-10.

23. Hjern A, Arat A, Vinnerljung B. Att växa upp med föräldrar som har missbruksproblem eller psykisk sjukdom – hur ser livet ut i ung vuxen ålder? Projektet "Barn som anhöriga". . http://www.anhoriga.se: CHESS, Stockholms universitet/Karolinska Institutet i samarbete med Institutionen för socialt arbete vid Stockholms universitet.; 2014.

24. Järkestig Berggren U, Hanson E. Stödprogram riktade till barn och/eller föräldrar när en förälder missbrukar alkohol eller andra droger-en kunskapsöversikt. Nationellt kompetenscentrum anhöriga; 2016.

25. Gottfredson D, Kumpfer K, Polizzi-Fox D, Wilson D, Puryear V, Beatty P, et al. The Strengthening Washington DC Families Project: A randomized effectiveness trial of family-based prevention. Prevention Science. 2006;7(1):57-74.

26. Bröning S, Kumpfer K, Kruse K, Sack P-M, Schaunig-Busch I, Ruths S, et al. Selective prevention programs for children from substance-affected families: a comprehensive systematic review. Substance abuse treatment, prevention, and policy. 2012;7(1):23.

27. Järkestig Berggren U, Hanson E. Children as Next of Kin: A Scoping Review of Support Interventions for Children Who have a Parent with a Serious Physical Illness. Child Care in Practice. 2015;22(3):277-95.

28. Niemela M, Hakko H, Rasanen S. A systematic narrative review of the studies on structured child-centred interventions for families with a parent with cancer. Psycho-oncology. 2010;19(5):451-61.

29. Kühne F, Haagen M, Baldus C, Diareme S, Grether A, Schmitt F, et al. Implementation of preventive mental health services for children of physically ill parents: experiences in seven European countries and health care systems. General hospital psychiatry. 2013;35(2):147-53.

30. Reupert A, Maybery D, Cox M, Scott Stokes E. Place of family in recovery models for those with a mental illness. Int J Ment Health Nurs. 2015;24(6):495-506.

31. Maybery DJ, Reupert AE. Parental mental illness: a review of barriers and issues for working with families and children. Journal of Psychiatric and Mental Health Nursing. 2009.

32. Maybery D, Reupert A. Workforce capacity to respond to children whose parents have a mental illness. Australian and New Zealand Journal of Psychiatry. 2006;40(8):657-64.

33. Maybery D, Goodyear M, Reupert A. The family-focused mental health practice questionnaire. Arch Psychiatr Nurs. 2012;26(2):135-44.

34. Dunst CJ, Trivette CM, Hamby DW. Meta-analysis of family-centered helpgiving practices research. Mental retardation and developmental disabilities research reviews. 2007;13(4):370-8.

35. Helsedirektoratet. Pårørendeveileder, Veileder om pårørende i Helse- og omsorgstjenester (Recommedations about next of kin in Health- and care services). Oslo: Directorate of Health; 2018.

36. Siegenthaler E, Munder T, Egger M. Effect of Preventive Interventions in Mentally Ill Parents on the Mental Health of the Offspring: Systematic Review and Meta-Analysis. Journal of the American Academy of Child & Adolescent Psychiatry 2012;51(1).

37. Inhestern L, Haller A-C, Wlodarczyk O, Bergelt C. Psychosocial interventions for families with parental cancer and barriers and facilitators to implementation and use–A systematic review. PloS one. 2016;11(6):e0156967.

38. Rogers EM. Diffusion of Innovations. New York: Free Press; 2003.
39. Rogers EM. Diffusion of preventive innovations. Addictive behaviors. 2002;27(6):989-93.
40. Aarons GA, Hurlburt M, Horwitz SM. Advancing a conceptual model of evidence-based practice implementation in public service sectors. Adm Policy Ment Health. 2011;38(1):4-23.
41. Ploeg J, Davies B, Edwards N, Gifford W, Miller PE. Factors influencing best-practice guideline implementation: lessons learned from administrators, nursing staff, and project leaders. Worldviews Evid Based Nurs. 2007;4(4):210-9.
42. Fixsen DL, Naoom SF, Blase KA, Friedman RM, Wallace F. Implementation Research: A Synthesis of the Literature. Tampa, FL: University of South Florida, Louis de la Parte Florida Mental Health Institute, The National Implementation Research Network 2005.
43. Ogden T, Fixsen DL. Implementation science. Zeitschrift für Psychologie. 2015;222:4–11.
44. Battilana J, Casciaro T. Change agents, networks, and institutions: A contingency theory of organizational change. Academy of Management Journal. 2012;55(2):381-98.
45. Ruud T, Birkeland B, Faugli A, Hagen KA, Hellman A, Hilsen M, et al. Barn som pårørende -Resultater fra en multisenterstudie (Children as next of kin -Results from a multicenter study) IS-05022. Oslo 2015.
46. Skogøy BE, Sørgaard K, Maybery D, Ruud T, Stavnes K, Kufås E, et al. Hospitals implementing changes in law to protect children of ill parents: a cross-sectional study. BMC health services research. 2018;18(1):609.
47. Toikka S, Solantaus T. The Effective Family Programme II: Clinicians' Experiences of Training in Promotive and Preventative Child Mental Health Methods. The International Journal of Mental Health Promotion. 2006;8(4):4-10.
48. Region Jönköpings län. Barndialogen 2018 [Available from: https://plus.rjl.se/infopage.jsf?nodeId=43233.
49. Maybery D, Goodyear M, O'Hanlon B, Cuff R, Reupert A. Profession differences in family focused practice in the adult mental health system. Fam Process. 2014;53(4):608-17.
50. Tungpunkom P, Maybery D, Reupert A, Kowalenko N, Foster K. Mental health professionals' family-focused practice with families with dependent children: a survey study. BMC health services research. 2017;17(1):818.
51. Whitham J, Eddy K, Maybery D, Reupert A, Fudge E. Use of a web-based delphi study in the development of a training resources for workers supporting families where parents experience mental illness. International Journal of Mental Health Promotion. 2009;11(2):42-54.
52. Romer G, Saha R, Haagen M, Pott M, Baldus C, Bergelt C. Lessons learned in the implementation of an innovative consultation and liaison service for children of cancer patients in various hospital settings. Psycho-Oncology. 2007;16(2):138-48.
53. Gullbrå F, Smith-Sivertsen T, Rortveit G, Anderssen N, Hafting M. Ill and substance-abusing parents: how can the general practitioner help their children? A qualitative study. BMC family practice. 2016;17(1):154.
54. Aarons GA. The organizational social context of mental health services and clinician attitudes toward evidence-based practice: a United States national study. Implementation science : IS. 2012;7.
55. Maybery D, Goodyear M, Reupert A, Grant A. Worker, workplace or families: What influences family focused practices in adult mental health? Journal of psychiatric and mental health nursing. 2016;23(3-4):163-71.
56. Grant A, Goodyear M, Maybery D, Reupert A. Differences Between Irish and Australian Psychiatric Nurses' Family-Focused Practice in Adult Mental Health Services. Arch Psychiatr Nurs. 2016;30(2):132-7.
57. Goodyear M, Maybery D, Reupert A, Allchin R, Fraser C, Fernbacher S, et al. Thinking families: A study of the characteristics of the workforce that delivers family-focussed practice. International journal of mental health nursing. 2017;26(3), 238-248.
58. Grant A, Reupert A, Maybery D, Goodyear M. Predictors and enablers of mental health nurses' family-focused practice. International journal of mental health nursing. 2018; 28(1), 140-151.

59. Lauritzen C, Reedtz C, Van Doesum K, Martinussen M. Factors that may facilitate or hinder a family-focus in the treatment of parents with a mental illness. Journal of child and family studies. 2015;24(4):864-71.

60. Houlihan D, Sharek D, Higgins A. Supporting children whose parent has a mental health problem: an assessment of the education, knowledge, confidence and practices of registered psychiatric nurses in Ireland. J Psychiatr Ment Health Nurs. 2013;20(4):287-95.

61. Korhonen T, Vehviläinen-Julkunen K, Pietilä A-M. Do nurses working in adult psychiatry take into consideration the support network of families affected by parental mental disorder? Journal of Psychiatric and Mental Health Nursing. 2008;15(9):767-76.

62. Schmitt F, Manninen H, Santalahti P, Savonlahti E, Pyrhonen S, Romer G, et al. Children of Parents with Cancer: A Collaborative Project Between a Child Psychiatry Clinic and an Adult Oncology Clinic. Clinical Child Psychology and Psychiatry. 2007;12(3):421-36.

63. Lauritzen C, Reedtz C. Child responsible personnel in adult mental health services. Int J Ment Health Syst. 2016;10:64.

64. Halsa A, Kufås E. De nye vaktbikkjene: Barneansvarlige i helseforetak (The new watchdogs: Child responsible personnel in Health Authorietes). In: Haugland BSM, Ytterhus B, Dyregrov K, editors. Barn som pårørende (Children as next of kin) Norway: Abstrakt forlag.; 2012.

65. Östman M, Afzelius M. Children's representatives in psychiatric services: What is the outcome? International journal of social psychiatry. 2011;57(2):144-52.

66. Birkeland B, Foster K, Selbekk AS, Høie MM, Ruud T, Weimand B. The quality of life when a partner has substance use problems: a scoping review. Health and quality of life outcomes. 2018;16(1):219.

67. Birkeland B, Weimand B. En kvalitativ undersøkelse av levekår hos voksne pårørende til personer med rusmiddelproblemer. Oslo: Helsedirektoratet; 2015.

68. Birkeland B, Weimand BM, Ruud T, Høie MM, Vederhus J-K. Perceived quality of life in partners of patients undergoing treatment in somatic health, mental health, or substance use disorder units: a cross-sectional study. Health and quality of life outcomes. 2017;15(1):172.

69. Kufås E, Faugli A, Weimand B. Barn og ungdom som har foreldre med rusmiddelproblemer: en kvalitativ levekårsstudie:«Når jeg ser han, får jeg sånn stikk i hjertet...». Oslo: Helsedirektoratet. 2015.

70. Hagen KA, Hilsen M, Kallander EK, Ruud T. Health-related quality of life (HRQoL) in children of ill or substance abusing parents: examining factor structure and sub-group differences. Quality of Life Research. 2019;28(4), 1063-1073.

71. Kallander EK, Weimand B, Ruud T, Becker S, Van Roy B, Hanssen-Bauer K. Outcomes for children who care for a parent with a severe illness or substance abuse. Child & Youth Services. 2018:1-22.

72. Kallander EK, Weimand BM, Becker S, Van Roy B, Hanssen-Bauer K, Stavnes K, et al. Children with ill parents: extent and nature of caring activities. Scandinavian journal of caring sciences. 2018;32(2):793-804.

73. Statistisk Sentralbyrå. Statistikkbanken 2014.

74. Laletas S, Goodyear M, Reupert A. Parental Mental Illness: Cross-Sectional Analysis Of Family Focused Practice within the Early Childhood Sector. Journal of Child and Family Studies. 2018;1-27(5), 1650-1660.

75. Tchernegovski P, Reupert A, Maybery D. "Let's Talk about Children": A pilot evaluation of an e-learning resource for mental health clinicians. Clinical Psychologist. 2015;19(1):49-58.

76. Lauritzen C, Reedtz C, Rognmo K, Nilsen MA, Walstad A. Identification and support for children of mentally ill parents: A five year follow-up study of adult mental health services. Frontiers in psychiatry. 2018;9:507.

77. Brislin RW. Back-translation for cross-cultural research. Journal of cross-cultural psychology. 1970;1(3):185-216.

78. DeVellis RF. Scale development: Theory and applications: Sage publications; 2016.

79. Nunnally JC. Psychometric theory. New York: McGraw-Hill. 1978.

80. Field A. Discovering statistics using IBM SPSS statistics: 4th edition, Sage publications; 2013.

81. Cohen A, Doveh E, Eick U. Statistical properties of the rwg(J) index of agreement. Psychol Methods. 2001;6:297 - 310.
82. Egeland KM. Psychometric properties of the Norwegian version of the Evidence-Based Practice Attitude Scale (EBPAS): to measure implementation readiness. Health Res Policy Syst. 2016;14.
83. Aarons GA. Mental health provider attitudes toward adoption of evidence-based practice: The Evidence-Based Practice Attitude Scale (EBPAS). Mental Health Services Research. 2004;6.
84. Svalheim A-K, Steffenak AKM. Barneansvarliges rolle, knyttet til barn som er pårørende til foreldre med psykiske lidelser – en fenomenografisk studie (Child responsible personnel's role - a phenomenological study). Nordisk tidsskrift for helseforskning. 2016;12(1):2.
85. Lauritzen C, Reedtz C. Support for children of service users in Norway. Mental Health Practice. 2013;16(10).
86. Ogden T, Bjornebekk G, Kjobli J, Patras J, Christiansen T, Taraldsen K, et al. Measurement of implementation components ten years after a nationwide introduction of empirically supported programs--a pilot study. Implementation science : IS. 2012;7:49.
87. Korhonen T, Pietila AM, Vehvilainen-Julkunen K. Are the children of the clients' visible or invisible for nurses in adult psychiatry?--a questionnaire survey. Scand J Caring Sci. 2010;24(1):65-74.
88. Korhonen T, Vehvilainen-Julkunen K, Pietila AM. Implementing child-focused family nursing into routine adult psychiatric practice: hindering factors evaluated by nurses. J Clin Nurs. 2008;17(4):499-508.
89. Frazier PA, Tix AP, Barron KE. Testing moderator and mediator effects in counseling psychology research. Journal of counseling psychology. 2004;51(1):115.
90. Gjersing L, Caplehorn JR, Clausen T. Cross-cultural adaptation of research instruments: language, setting, time and statistical considerations. BMC medical research methodology. 2010;10(1):13.
91. Leonard RA, Linden M, Grant A. Psychometric evaluation of the Family Focused Mental Health Practice Questionnaire in measuring home visitors' family focused practice. PloS one. 2018;13(9):e0203901.

Additional file 1

Predictors of Family Focused Practice Behaviours

Tables 5a-e, with both significant and non-significant predictors