



**ORANGA
TAMARIKI**
Ministry for Children

EVIDENCE CENTRE
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New Zealand Government

Medical Child Abuse

including Factitious Disorder Imposed on Another

Literature Scan

The Oranga Tamariki Evidence Centre works to build the evidence base that helps us better understand wellbeing and what works to improve outcomes for New Zealand's children, young people and their whānau.

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Executive summary



Purpose

- To provide up-to-date information on what is known about children and young people affected by medical child abuse or Factitious Disorder Imposed on Another also known as Munchausen syndrome by proxy.
- The intended audience for this work is social work practitioners working in care and protection, specifically kaimahi across Oranga Tamariki. The focus is on what is needed for the safety of children and young people experiencing medical child abuse.

Methodology

- This literature scan incorporates current literature addressing two primary research areas: the identification medical child abuse and detection and diagnosis of FDIA, and best practice for the management and.
- Information from 44 journal articles or reports was used to provide a summary of evidence in relation to each primary research area. Additional articles were incorporated in October 2021.
- Although comprehensive, the search was not systematic. Therefore, the literature scan may be missing some relevant studies or documentation. Additionally, key gaps in the literature were identified, including no information directly relevant to whānau Māori affected by medical child abuse or FDIA.

Definition and prevalence of FDIA

- FDIA involves an adult purposefully falsifying or inducing physical, psychological, or developmental disorder(s) in a child or young person in order to fulfil psychological needs associated with the sick role.
- FDIA is generally considered rare, affecting approximately 0.5-2.0 per 100,000 children internationally. This rarity means practitioners in New Zealand may seldom encounter a case. However, due to difficulties with the detection of FDIA, these are considered under-estimates of the true prevalence rate.
- In an estimated 91-95% of FDIA cases, mothers are the primary person responsible for harm to a child. Fathers or male caregivers are rarely the sole person involved, although cases involving harm caused by fathers tend to be more severe and have higher child death rates.
- Children and young people harmed by FDIA tend to be under the age of five; rates for boys and girls appear to be approximately equal. Research suggests that 10% of FDIA cases result in the death of the child, and a further 50% of cases result in children experiencing long-term medical conditions. Many cases also include similar abuse of other siblings.

Characteristics and behaviours associated with medical child abuse.

- Illness or disorder in children can be falsified in many ways, including inducing (i.e. causing) symptoms, or fabricating symptoms (e.g., lying about symptoms, or

creating the false appearance of symptoms). These falsification behaviours result in both the direct and indirect harm of children (e.g., through children being subjected to unnecessary testing or treatment). Fabrication has been found to be the most common behaviour perpetrators engage in.

- There is no single psychological and behavioural profile of those responsible for these behaviours. However, certain characteristics are commonly reported for them, including a tendency to work in healthcare or be medically knowledgeable, seek social approval and have difficulties managing their emotions appropriately.
- People responsible for medical child abuse tend to have long histories of experienced trauma, poor mental health, and attachment difficulties. A third to a half also have histories of self-directed factitious disorder or somatoform disorder.¹
- Although most people responsible for medical child abuse are married or in long-term relationships, it is common for them to experience relationship dysfunction and/or family violence. Additionally, fathers who are not directly involved in the harmful behaviours tend to be emotionally and physically withdrawn from the family. These marital/family issues may be an important trigger for these behaviours.

Early detection of medical child abuse

- Building a pattern of evidence that suggests that the parent or caregiver is repeatedly making false or exaggerated claims is often the most compelling form of evidence in cases. The literature identifies a number of warning signs demonstrated by both parents/caregivers and children that can indicate the presence of medical child abuse. These warning signs generally relate to inconsistent, puzzling or deceptive symptoms in the child, or as reported by parents or caregivers over a period of time.

Confirmation and diagnosis of suspected FDIA following medical child abuse

- A diagnosis of FDIA is not required to determine that abuse and neglect has occurred. The primary focus of social work professionals responding to cases of medical child abuse and potential FDIA should be on child wellbeing and safety, and of the family or whānau, rather than diagnosis.
- Assessment of parents or caregivers for diagnostic purposes should be conducted by a qualified mental health professional, due to the complexities involved in the diagnosis (including ascertaining the motivations of the parent or caregiver, and ruling out the possibility of medically-anxious parents/caregivers being falsely accused of FDIA).
- Record-based behavioural analysis is generally considered to be the most robust way to detect cases of FDIA. This involves conducting an exhaustive, systematic

¹ Somatoform disorder refers to cases where the adult is unaware of the falsification or induction of their own symptoms.

review of the child or young person’s medical and other health records to identify suspicious patterns of behaviours and symptoms.

- There is a tendency for cases of medical child abuse to go unrecognised and unreported. A large contributor to this problem is the tendency of health professionals to trust the reports of parents and caregivers. There are also long delays between the onset of abuse and formal diagnosis in cases that are identified. These issues further highlight the importance of awareness and familiarity with the warning signs.

Responding to medical child abuse cases: general principles

- The ultimate goal of any response plan in cases of medical child abuse is to stop the abuse from occurring, to ensure that the child and any siblings are safe, and to allow for the treatment of those with FDIA in the least restrictive means possible. To this end, ensuring the safety of children and their siblings should be the first priority when a suspected case of medical child abuse is identified.
- The literature highlights the importance of multi-disciplinary, coordinated approaches for the response and management of medical child abuse cases. This coordinated approach is likely to require a multi-disciplinary team including social workers, primary health care providers, mental health providers, and teachers/education providers. The aim of this team is to ensure the safety of the child and their siblings by establishing common management guidelines and developing an intervention and monitoring plan for the family or whānau.
- ‘Informing sessions’ can be held with parents or caregivers once suspected medical child abuse has been established, to build the basis of a transparent and solutions-focussed relationship between the multi-disciplinary team and the parents or caregivers. This also allows for a care plan to be developed for the child and their siblings that includes the input of parents and caregivers.

Safety considerations when working with families and whānau affected by medical child abuse

- There are ongoing safety concerns for children after a case of medical child abuse has been identified. For example, people responsible for FDIA behaviours may intensify their abuse in order to “prove” that their child is sick. There is also a high risk of re-abuse or abuse of other siblings in cases, particularly where the person responsible continues to deny their behaviours. Careful consideration must therefore be given to safe levels of contact between the parents or caregivers and their children.
- It may be safe for the child to remain in the home while professionals are supporting the child and the parents or caregivers responsible for medical child abuse to address their behaviour, or if the other parent or caregiver is separated from the parent or caregiver responsible for FDIA behaviours. However, where the child remains at home it is crucial that the behaviour of the parents or caregivers is closely monitored.

Factors to consider in assessment

- Social workers will generally be notified of potential cases of medical child abuse through referrals from primary healthcare providers. Referrals should ideally include clear explanations and details that led to the diagnoses and the harm experienced by the child and their siblings, where appropriate.
- A full assessment of the family and whānau should be conducted by social workers after a case of medical child abuse has been identified or referred, with the aim of identifying the nature of harm to the child (and potentially their siblings), and the current needs (including mental health needs) of the child, the parent or caregiver, and other family or whānau members. It is also important to recognise at this stage that cases of medical child abuse may involve the exaggeration of genuine illness or disorder experienced by the child or young person. Therefore, a full assessment of ongoing medical needs is also required.
- People responsible for medical child abuse behaviours may have engaged in the deceit and manipulation of health and social service providers over a long period of time. The possibility of inaccuracies in existing information about the child and their family or whānau is therefore important to keep in mind.

Interventions with families and whānau

- Treatment of people responsible for FDIA behaviours is often intensive and lengthy, requiring input from a multi-disciplinary team. Some parents or caregivers involved, including those who were engaged in particularly severe forms of abuse (e.g., suffocation, poisoning), may never be able to safely care for their children. However, the likelihood of positive treatment outcomes are increased in instances where the person responsible for FDIA behaviours acknowledges and shows insight into their abusive behaviours.
- Despite the complexity of FDIA intervention following the detection of medical child abuse, some effective forms of psychological treatment have been identified in the literature. These include dialectical behavioural therapy (DBT), trauma-focussed cognitive behavioural therapy (TF-CBT), and narrative therapy.
- Specialist psychological treatment is also recommended for children and young people who have experienced this form of abuse/neglect, including support for educational and social re-integration.
- Family therapy may also be useful to re-build family and whānau relationships and trust where the parent or caregiver responsible is able to acknowledge their abusive behaviour. Consideration should also be made as to the possible psychological treatment needs of other individuals connected to the affected family or whānau.
- Treatment often focusses on building the skills of parents and caregivers to improve the overall wellbeing of the family or whānau.

Introduction and method



Purpose

The purpose of this literature scan is to provide up-to-date information on what is known about children and young people affected by medical child abuse and Factitious Disorder Imposed on Another (FDIA; previously known as Munchausen syndrome by proxy). It is hoped that this literature scan will contribute to kaimahi being able to articulate the importance of safety-organised assessment and planning when working with affected families or whānau. This is particularly important in assessing the ability of affected families and whānau to achieve safety into the future, as agencies and others step back. As such, this literature scan has multiple intended uses:

- to be shared with kaimahi as required
- to inform professional practice responses to requests for assistance when Oranga Tamariki has kaimahi working with families or whānau where medical child abuse or FDIA may be present
- to know more about this area to inform future policy and practice work.

The intended audience for this work is social work practitioners working in care and protection, specifically kaimahi across Oranga Tamariki. The focus is on what is needed for the safety of children and young people experiencing medical child abuse.

Methodology

Scope

This literature scan contributes to the Oranga Tamariki evidence base by providing an overview of current literature relating to the areas outlined below.

Evidence area one: Identification and diagnosis of medical child abuse and FDIA

- What characteristics or types of behaviour might be observed in a person resulting in medical child abuse or exhibiting FDIA?
- How often does FDIA get mis-diagnosed as another type of mental health disorder?
- What is the pathway to getting a diagnosis and how often is this disorder diagnosed?
- What is known about the ethnicity and gender break-down of those who exhibit and/or are diagnosed with medical child abuse (in Aotearoa and internationally)?
- What makes getting a diagnosis so challenging?

Evidence area two: Best practice for management and intervention

- What does the evidence say about the best social work approach is in responding to these child protection cases?
- What are important considerations to factor into the social work assessment?

- How can a safety organised practice approach be taken to engagement, assessment, planning with whānau?
- What opportunities exist for establishing best practice in the delivery of services to tamariki and whānau affected by medical child abuse, that empowers self-discovery and upholds people’s dignity (mana enhancing)?
- What are the best intervention options for people with FDIA (including when this is highly suspected but not confirmed with a diagnosis)?

Due to the intended uses of this literature scan, greater emphasis is placed on evidence area two in this report.

For the purposes of this literature scan, the following areas were considered out of scope:

- Literature related to medical child abuse and factitious disorder (previously known as Munchausen syndrome) i.e. where the perpetrator is feigning illness or injury in themselves.
- Cases of medical child abuse where the person being harmed is over the age of 18, or where the person responsible is not in a caregiving relationship with the person being harmed.
- Cases of FDIA where the harmful behaviours are directed at an animal or pet.
- Literature relating to adult survivors of medical child abuse or FDIA (i.e. where the person harmed was a child or young person at the time, but the focus of the research is on supports/services or wellbeing in adulthood).

Literature search

In total, information from 44 journal articles or reports was used to provide a summary of the evidence as it relates to each key research area. The following databases were searched between 6 – 8 May 2021:

- Cochrane Library
- CINAHL
- Google Scholar
- ProQuest
- PsycINFO
- PubMed
- ScienceDirect
- Scopus
- Web of Science

Searches for published evidence relevant to Māori and other indigenous populations were also conducted using the following databases:

- <https://evols.library.manoa.hawaii.edu/>
- <https://nzresearch.org.nz/>

To conduct the search, we used combinations of subject/index terms and key words. All search terms used in the literature scan are provided in Table 1 below. Searches were conducted using all possible combinations from each of the columns.

Table 1. Search terms

Search term 1	Search term 2	Search term 3
Search One: Identification and diagnosis of FDIA AND intervention with FDIA		
Factitious disorder imposed on another	Behavio* characteristics	Caregiver
FDIA	Symptoms	Parent
Munchausen syndrome by proxy	Presentation	Mother
Medical child abuse	Diagnosis	Father
Fabricated or induced illness	Misdiagnos*	Māori
Malingering by proxy	Clinical pathway	Child*
	Prevalence	Tamariki
	Ethnicit*	Baby
	Gender	
	Intervention	
	Service*	
	Treatment	
	Support*	
	Rehabilitation	
	Referral	
Search Two: Best practice for social work management		
Factitious disorder imposed on another	Social work*	
FDIA	Child protect*	
Munchausen syndrome by proxy	Out-of-home	
Medical child abuse	Foster*/whangai	
Fabricated or induced illness	Looked after	
Malingering by proxy	Protect* care	
	Statutory care	
	Remain home	

The title and abstracts of initial returns were reviewed for relevance to the key research areas. The references used in articles or reports that passed this initial review, as well as lists of documents that had cited these articles or reports

(generated by the databases searched), were also checked for any further relevant information sources.

From this first sweep, full texts for all potential inclusions (254 documents) were reviewed for relevance to the key research areas. Because of the large number of initial relevant returns, further inclusion criteria were developed to reduce the final number of documents included in this literature scan. These new criteria included limiting included documents/articles to those published 2010² and after, excluding case studies/case reports, and excluding documents/articles that only tangentially considered medical child abuse or FDIA (e.g., where the document/report focused on child abuse in general). Further documents were also excluded for various reasons, including the body of the document/article not being written in English, or the subject matter being factitious disorder rather than medical child abuse or FDIA. In total, 210 documents were excluded from the literature scan after reviewing the full text.

This left a total of 44 articles and reports included in the final literature scan.

Limitations

When considering the information provided in this evidence brief, it is important to recognise that although the search of the literature was relatively detailed and extensive, it is likely that some research or reports that address the key research areas were not identified in the search (and therefore not included in this report). Additionally, reviewed articles and reports were not formally assessed for quality, therefore no formal indication is able to be made regarding the strength of the evidence presented in the report. That said, many of the articles and documents included in this literature scan were systematic or narrative reviews of the existing literature, which are generally more reliable than individual case reports or empirical studies.

The literature scan includes a wide variety of documents and articles that consider medical child abuse from multiple lenses. That said, several areas of interest were not addressed by the reviewed literature, including:

- research and guidance relevant to whānau Māori or the New Zealand context
- a specific focus on strengths-based or mana-enhancing approaches to practice
- the ethnicity breakdown of children experiencing medical child abuse and people responsible for FDIA behaviours
- rates of mis-diagnosis
- comprehensive coverage of appropriate social work responses to medical child abuse and FDIA.

It is also important to note that only one article was identified that considered the identification and management of medical child abuse or FDIA within the Aotearoa New Zealand context. There is no strong reason to believe that the manifestation

² Documents/articles published prior to 2010 were reviewed and included in the literature scan if they were of particular relevance to the search. For example, one report that focussed on FDIA in the New Zealand context was included despite being published in 2001.

and management of medical child abuse and FDIA is different within Aotearoa New Zealand compared with other international jurisdictions. However, there are sufficient differences in social work practices and philosophies in Aotearoa New Zealand to justify further investigation into the applicability of international evidence to the Aotearoa New Zealand context. In particular, the extent to which the findings and conclusions presented in this literature scan are applicable to whānau Māori is unclear, as well as their appropriateness for Pacific and other non-Western populations in Aotearoa New Zealand. It is therefore recommended that further research is conducted within the Aotearoa New Zealand context to address these knowledge gaps and ensure culturally safe and appropriate practice with all families and whānau affected by medical child abuse or FDIA.

Evidence from the literature



Understanding the characteristics and identification of medical child abuse and FDIA

Definition and prevalence of medical child abuse and FDIA

Medical child abuse involves the falsification or induction of illness or disorder in another

medical child abuse may result from Factitious disorder imposed on another (FDIA) which is a formally-recognised mental health condition according to the DSM-5 (American Psychiatric Association, 2013). Also known as Munchausen syndrome by proxy, fabricated or induced illness by carers³, or medical child abuse⁴, FDIA involves an adult purposefully falsifying or inducing physical, psychological, or developmental disorder(s) in another person or animal in order to fulfil psychological needs associated with the sick role (Amlani, Grewal, & Feldman, 2016; Bursch, Emerson, & Sanders, 2021).

Importantly, FDIA is distinct from factitious disorder, in which an adult falsifies illness or disorder in themselves. It is also distinct from malingering by proxy, whereby the motivation is for material benefit or gain such as perceived financial gain, rather than the fulfilment of psychological needs (although the characteristics of cases of malingering by proxy are often similar to those of FDIA; Amlani et al., 2016; Chafetz & Dufrene, 2014; Dumitrascu, Gallardo, & Caplan, 2015). Notably, FDIA is also distinct from medical anxiety that might be displayed by parents or caregivers, whereby anxiety relating to the health or medical needs of their child may cause parents or caregivers to request unnecessary medical tests or interventions.

It is also important to note that FDIA is not limited to falsification of medical or psychological illnesses or disorders. Falsified symptoms can also include fabricated behavioural reports (e.g., falsely claiming that a child is engaging in self-harm), or fabricated disabilities, including educational issues (e.g., specific learning disabilities, dyslexia, attention deficit disorders; Bursch, 2018, Frye & Feldman, 2012).

Harmful behaviours associated with FDIA can be targeted towards children, other adults, and pets or other animals. The evidence that follows in this report is focused on instances where the person harmed is a) a child and b) in a caregiving relationship with an adult responsible for FDIA behaviours.

Medical child abuse is a rare, but the true prevalence is unknown

³ 'Fabricated or induced illness by carers' is the preferred term in the United Kingdom (Davis et al., 2019).

⁴ 'Medical child abuse' is preferred to FDIA by some (particularly in the USA), as this term focusses on the harm caused to the child rather than on the motivations of the parent or caregiver (Hornor, 2021). As such, 'medical child abuse' can include cases where the perpetrator is motivated by secondary gains, such as access to money or drugs. This also means that diagnosis can be made on the basis of outcomes for the child, rather than requiring knowledge of the internal motivations of the perpetrators (Roesler, 2018).

Generally considered a rare disorder, FDIA has been reported in over 50 countries and affects an estimated 0.5 – 2.0 per 100,000 children and young people aged under 16 (Bursch et al., 2021; Feldman & Brown, 2002; Hornor, 2021; Zeitlin, 2016), however due to the issues with identifying and diagnosing FDIA, these estimates can vary dramatically. Recent reports from paediatricians have suggested that more than 50 cases of suspected FDIA are under investigation at any one time in United Kingdom cities, and that there may be increasing numbers of cases based on anecdotal reports (Davis, Murtagh, & Glaser, 2019). It has also been reported that 40-50 cases of FDIA are investigated each year in a single USA hospital (Seattle Children’s Hospital; Roesler, 2018), however only 1,200 new cases of FDIA are reported annually in the USA overall (Pacurar, Runcan, Popescu, Lesanu, & Oraseanu, 2015).

Ultimately, the true rates of FDIA are unknown and these rates are likely to underestimate the true prevalence, due to the deception inherent in the disorder and the fact that many cases go unreported or unidentified (Hornor, 2021). Indeed, one New Zealand-based prevalence study estimated a higher rate of 2.0 per 100,000 children, and this was considered to be an under-estimate by the researchers (Denny, Grant, & Pinnock, 2001). Additionally, an Italian population-based study identified four FDIA cases out of a sample of 751 acute paediatric admissions (0.53%, or equivalent to a rate of 530 per 100,000 admissions; Ferrara et al., 2013). While this finding is limited to a single, relatively small study, it does indicate that previous research may substantially under-estimate true FDIA prevalence rates. Further current, robust epidemiological studies are required to provide a clearer picture of the size of the issue (Davis et al., 2019).

Children harmed by medical child abuse tend to be young

Across the literature, there appears to be general consensus that boys and girls are harmed by medical child abuse at approximately equal rates, and that most victims begin to be abused before the age of five (Ban & Shaw, 2019; Dye, Rondeau, Guido, Mason, & O’Brien, 2013; Feldman & Brown, 2002; Özdemir et al., 2015; Pacurar et al., 2015).

A recent systematic review of 81 case reports assessed the common characteristics of people harmed by FDIA (Abdurrachid & Gama Marques, 2020). They found that girls and boys were harmed at approximately equal rates, and that the average age of children harmed was approximately five years old. Similarly, a review of 18 FDIA cases in New Zealand found an approximately equal gender split, although the median age of diagnosis was slightly younger, at 2.7 years (Denny et al., 2001).

Abuse can have severe effects, including death

Although those responsible for FDIA behaviours tend to target their abuse towards one child, there may be more than one child or young person affected within the family, with the children either being harmed at the same time or sequentially (Özdemir et al., 2015). Research suggests that 25-50% of siblings of children harmed by FDIA have also been or are currently being abused in the same way (Hornor, 2021; Pacurar et al., 2015).

Although rare, FDIA is associated with high levels of mortality or significant, lasting harm experienced by children and young people. Research has suggested that up to 10% of FDIA cases result in the death of the child⁵, and a further 50% of cases leave children and young people experiencing long-term medical conditions (i.e. morbidity; Ban & Shaw, 2019).

Mothers tend to be responsible for FDIA behaviours, but cases can involve collusion with other family or whānau members

Women (typically mothers) are most commonly reported as the primary person responsible for FDIA behaviours, with recent systematic reviews of cases estimating 91-95% of cases involve mothers (Abdurrachid & Gama Marques, 2020; Ban & Shaw, 2019; Yates & Bass, 2017). One New Zealand-based prevalence study found that in all 18 FDIA cases identified, the suspected person responsible was the child's mother (Denny et al., 2001).

Fathers or male caregivers are rarely solely responsible for FDIA behaviours, although they may collude with or be overridden by the mother or female caregiver responsible for the harm (Davis et al., 2019; Morrell & Tilley, 2012). In a small number of cases, fathers, extended family members (including grandparents), caregivers and others have also been reported to be the primary individuals responsible for FDIA behaviours or to support the primary parent/caregiver in their abuse; cases also sometimes involve FDIA-related abuse caused by both parents or caregivers (Abdurrachid & Gama Marques, 2020; Davis et al., 2019; Zeitlin, 2016). Concerningly, a review of 15 cases of FDIA involving harm directly caused by the father found that these cases appear to be more severe and more likely to result in the death of the child compared with female cases (Meadow, 1998). This finding highlights the need to remain vigilant to the possibility of cases involving males.

Characteristics and behaviours associated with FDIA

The motivations, characteristics and behaviours of those responsible for FDIA behaviours are heterogeneous

Literature suggests that there is no single profile of individuals who engage in FDIA behaviours, with those responsible differing in terms of their motivations, characteristics, and behaviours. Further, most of the available research on the characteristics of those responsible for FDIA behaviours is limited to women, given that most are female (Abdurrachid & Gama Marques, 2020). That said, one review of 15 FDIA cases involving fathers found that males generally present in a similar way to females, although they may be more aggressive and over-bearing towards medical staff (Meadow, 1998).

Despite this base level of heterogeneity, there are some characteristics that are commonly reported in cases of FDIA; these reported presentations appear to be

⁵ There is some dispute over the reliability of this 10% estimate, with some authors suggesting that this is an over-estimate of the mortality rate driven by poor methodological practices in previous studies (Pankratz, 2010). However, the 10% figure is commonly cited in the literature.

generally consistent cross-culturally (Feldman & Brown, 2002). These commonalities include tendencies to (Abdurrachid & Gama Marques, 2020; Bursch et al., 2021; Özdemir et al., 2015; Yates & Bass, 2017):

- either work in healthcare or appear medically knowledgeable
- seek social approval but have mostly superficial relationships and low social support
- appear to have high moral standards
- demonstrate low levels of non-medical general knowledge and high levels of concrete thinking
- display a general lack of insight into the harmfulness of their behaviours, including denying or hiding their behaviours, and lacking empathy for the child they harmed
- portray themselves as victims and those around them as unsupportive
- display self-centeredness and passive-aggressiveness
- appear to have difficulties appropriately responding to the needs of their child(ren)
- have difficulties using appropriate coping strategies to manage internal negative moods or anxiety (i.e. have poor emotional regulation), which can instead lead to using maladaptive coping strategies that involve FDIA behaviours
- be described by others as not displaying much outward emotion (i.e. they demonstrate shallow affect).

Illness or disorder can be falsified in many ways, including fabricating or inducing symptoms

Factitious disorder imposed on another is a potentially fatal form of abuse/neglect due to the various means in which sufferers falsify illness or disorder in children and young people. There are a number of different ways in which illness or disorder can be falsified in children and young people (Abdurrachid & Gama Marques, 2020; Bursch et al., 2021). These include:

- fabrication (e.g., making false claims about symptoms or medical history of the child, including treatment recommendations)
- withholding information (e.g., deliberately failing to provide information that would help to explain the child's symptoms)
- simulation (e.g., creating false appearances of symptoms by placing fake blood in clothing or nappies, interfering with medical tests, or falsifying medical documents)
- induction (e.g., directly causing or exacerbating symptoms through behaviours such as poisoning, or suffocation)
- neglect (e.g., withholding medications, food or treatment to create or exacerbate symptoms)
- coaching (e.g., manipulating the child, other family members, or other individuals to provide information that fits with the fabricated narrative).

Through these different falsifying behaviours, parents or caregivers responsible for FDIA behaviours create both direct harm (e.g., causing physical illness or death;

causing emotional harm where the child becomes distressed about their health) and indirect harm to children and young people (e.g., through children being unnecessarily subjected to medical tests or interventions, being absent from school, and/or missing out on other social and developmental opportunities; Davis et al., 2019). Cases of FDIA also commonly involve other forms of emotional abuse and neglect imposed on the child (Bursch, 2018).

Educational issues or disorders can also be fabricated or falsified. The most common 'educational symptoms' falsified in cases of FDIA include ADHD, specific learning disabilities, motor delays, and behavioural difficulties (Ayoub, Schreier, & Keller, 2002; Frye & Feldman, 2012). Parents or caregivers of children with genuine educational needs can also exaggerate the effects of these needs in order to receive unnecessary assistance, such as physical or mental health therapies.

Importantly, those responsible for FDIA behaviours may also falsely exaggerate or intensify the symptoms of genuine illness or impairment experienced by their child; this means that the presence of a legitimate illness that could account for some of the symptoms or behaviours displayed by the child or young person does not automatically rule out the possibility of FDIA (Bursch et al., 2021). As such, children or young people with chronic disabilities or conditions may be at a higher risk of being harmed through FDIA (Bursch et al., 2021).

Induction appears to be the most common strategy employed to falsify illness or disorder

Of the different types of falsification behaviours outlined above, recent systematic reviews of case reports have found that induction is the most common (present in 57-74% of cases), followed by fabrication (20-46% of cases), simulation (11-22% of cases), coaching (9% of cases), and withholding information (2% of cases) (Abdurrachid & Gama Marques, 2020; Özdemir et al., 2015; Yates & Bass, 2017). Additionally, 50-70% of parents or caregivers responsible for FDIA behaviours continue to falsify symptoms after the child had been hospitalised, including in intensive care units (Criddle, 2010; Hornor, 2021; Yates & Bass, 2017). One New Zealand-based study involving assessment of 18 cases of FDIA indicated that most cases were of moderate severity (involving moderate difficulty at school or home life; Denny et al., 2001).

Current research suggests that parents or caregivers responsible for FDIA behaviours predominately employ one form of falsification to give the impression of illness or disorder. A recent systematic review of 81 case reports of FDIA found that only 15% of cases involved more than one type of falsification behaviour (Abdurrachid & Gama Marques, 2020), although the method of falsifying symptoms can change over time (Hornor, 2021).

Parents or caregivers responsible for FDIA behaviours tend to have histories of trauma and other mental health issues

Research has suggested that over 90% of mothers responsible for FDIA behaviours have an identifiable personality disorder (which may or may not be formally diagnosed; in some cases, these rates of personality disorder are inferred based on

general presentations), and many mothers also have histories of anxiety-related disorders (including post-traumatic stress disorder, PTSD), self-harm, issues with substance use, and a history of childhood trauma (Bass & Jones, 2011; Bursch et al., 2021; Day, Faust, Black, Day, & Alexander, 2017; Lopez-Rico, Lopez-Ibor Jr, Crespo-Hervas, Muñoz-Villa, & Jimenez-Hernandez, 2019; Yates & Bass, 2017). Research also suggests that it is common for the child harmed through FDIA to have experienced pre-existing illnesses, disorders, or developmental delays (Glaser, 2020).

Of particular note, approximately 30-50% of parents or caregivers responsible for FDIA behaviours have histories of self-directed factitious disorder or somatoform disorder⁶. These high rates of co-morbidity suggest that diagnoses of factitious disorder or somatoform disorder may be key risk factors for future FDIA (Bass & Jones, 2011; Hornor, 2021; Lopez-Rico et al., 2019; Yates & Bass, 2017).

Related to these histories of mental illness and trauma, other pathologies are also commonly-identified. For example, one study involving psychological assessment of 28 females responsible for FDIA behaviours found that over half of the women had long histories of pathological lying, often beginning in childhood (Bass & Jones, 2011). Additionally, up to 85% of mothers responsible for FDIA behaviours have been found to have insecure attachment or unsafe relationships with their child, and display signs of parenting anxiety (Lopez-Rico et al., 2019).

These mental health issues may not always be known to health or social service professionals, however; a recent systematic review of 81 case reports of FDIA found that 28% of cases involved a perpetrator with a known psychological diagnosis (Abdurrachid & Gama Marques, 2020). Overall, there is robust evidence that rates of comorbid mental health issues are higher among those responsible for FDIA behaviours than in the general population. However, the wide variance in estimates between different studies means that the true rate of comorbidity is unclear based on current evidence.

Fathers not directly involved in medical child abuse are often emotionally or physically detached from the family or whānau

Research has suggested that fathers not directly responsible for FDIA behaviours tend to be detached from the rest of the family or whānau. An analysis of online comments made by individuals who had self-reported experience with FDIA (either as a targeted child, other family member, or person responsible for FDIA behaviours) found that in most cases, fathers not responsible for FDIA behaviours were typically emotionally and/or physically absent in day-to-day childcare, and often believed what they were being told by the mother responsible for FDIA behaviours without attending any medical appointments themselves (Anderson, Feldman, & Bryce, 2018). Other research has also supported the finding that fathers are often distant and emotionally and physically absent from the wider family or whānau in cases of FDIA, and as such, are either unaware of the child's medical care or believe what is

⁶ Somatoform disorder refers to cases where the adult is unaware of the falsification or induction of their own symptoms.

being reported by the mother (Hornor, 2021; Morrell & Tilley, 2012; Özdemir et al., 2015).

Fathers have also been found to often demonstrate high levels of denial regarding the abuse experienced by their child(ren), and tend to be demanding and litigious with health care professionals (Morrell & Tilley, 2012). That said, some fathers have also been reported to communicate their doubts about their child's illness or disorder with healthcare providers, even though they might not have intervened with their spouse or partner seeking medical care (Morrell & Tilley, 2012).

Further research suggests marital or relationship conflict may be a key risk factor or trigger for FDIA onset (Anderson et al., 2018). Recent systematic reviews of FDIA case reports have found that although around three-quarters of parents or caregivers responsible for FDIA behaviours are married, just over a third (36%) were divorced or experiencing family conflict/abuse at the time (Abdurrachid & Gama Marques, 2020; Özdemir et al., 2015; Yates & Bass, 2017). Similarly, research has suggested that fathers not directly involved in FDIA are often less intelligent than their spouse/partner, experience substance use issues, have histories of perpetrating family violence, and may be sexually assaultive to their spouse/partner (Dye et al., 2013; Morrell & Tilley, 2012).

Motivations for FDIA behaviours vary, but tend to focus on fulfilling social needs

Motivations for the behaviours associated with FDIA vary, including: the desire to be viewed as a good parent; a need for sympathy, attention or care from others; wanting to show off their medical knowledge or manipulate 'experts'; a desire to create a purpose or roles for themselves; wanting to retaliate against a neglectful partner or spouse; a desire to build social networks and social supports through engagement with medical professionals and other families or whānau caring for ill children; and/or a desire to be viewed as a victim or martyr (Bursch et al., 2021; Criddle, 2010).

Given the social focus of many of these motivations, parents or caregivers responsible for FDIA behaviours tend to maintain their false narratives about the medical needs of their child across different settings and with all of their social contacts, including friends and family (Bursch, 2018). This often means that cases of FDIA persist for a long period of time before detection.

Early detection of medical child abuse

Recognition of medical child abuse warning signs is vital, given a history of missed opportunities

Research has highlighted a need for health and social services professionals to be more aware of the signs of medical child abuse, and to understand the long-lasting, severe impacts experienced by children and young people affected.. A review of online comments made by individuals with self-reported experience of FDIA (either as a child, other family member, or person responsible for FDIA behaviours) found that in most cases, concerns or suspicions that were reported to social services or

law enforcement were dismissed without appropriate investigation (Anderson et al., 2018). Additionally, a small study of adult survivors of FDIA found that 50% of individuals had been aware of their abuse in childhood and had reported this to trusted adults, who responded with anger, disbelief and threats (Postlethwaite, 2010). Reports of potential FDIA must therefore be taken seriously by professionals, and warrant further, systematic investigation.

Research has identified a number of key warning signs that may indicate medical child abuse

Building a pattern of evidence that is suggestive of the suspected parent/caregiver repeatedly making false or exaggerated medical claims is often the most reliable and compelling form of evidence in FDIA cases (Bursch et al., 2021). Although not tantamount to concrete evidence, there are a number of key warning signs that may indicate a parent or caregiver is engaging in medical child abuse behaviours and therefore may warrant further investigation. These include (Bursch, 2018, p.14; Glaser, 2020, p. 5):

- Repeated reporting of new symptoms in the child.
- Repeated presentations of the child to and attendance at medical settings, or repeated cancellations or missed medical appointments.
- Parent/caregiver continually seeks multiple medical opinions, or frequently complains about medical professionals.
- Parent/caregiver is reluctant to let medical professionals see the child on their own, or repeatedly talks for the child.
- Parent/caregiver insists on additional clinically-unwarranted tests, referrals, or treatments (sometimes based on internet searches).
- Discrepancy between the parent/caregiver's reports of the child's medical history and the medical record.
- Other individuals in the home or the caregiver have or have had unusual or unexplained illnesses or conditions.
- Animals in the home have unusual or unexplained illnesses or conditions – possibly similar to the child's presentation (e.g., unexplained seizures).
- Conditions or illnesses significantly improve or disappear in one child and then appear in another child, such as when another child is born and the new child begins to have similar or other unexplained symptoms.
- Parent/caregiver is reluctant to provide medical records, claims that past records are not available, or refuses to allow medical providers to discuss care with previous medical providers.
- The parent/caregiver reports that the other parent is not involved, does not want to be involved, and is not reachable.
- A parent, child, or other family members expresses concern about possible falsification or high healthcare utilisation.
- Observations of clear falsification or induction by the parent/caregiver. This may take the form of false recounting of past medical recommendations, test or exam results, conditions, or diagnoses.

Additionally, there are some warning signs that may assist with the identification of children affected by FDIA (Bursch, 2018, p.14; Glaser, 2020, p. 5):

- Reported symptoms or behaviours that are not congruent with observations, or which are not observed outside of the home. For example, the parent/caregiver says the child cannot eat, and yet the child is observed eating without the adverse symptoms reported by the parent/caregiver.
- Extensive medical assessments do not identify a medical explanation for the child's reported problems.
- Unexplained worsening of symptoms or new symptoms that correlate with the parent/caregiver's visitation or shortly thereafter.
- Symptoms resolve or improve when the child is separated and well-protected from the influence and control of the parent/caregiver.
- Laboratory findings that do not make medical sense, are clinically impossible or implausible, or the identification of chemicals, medications, or contaminants that should not be present.
- Unexplained impairment of the child's daily life, including school attendance, use of mobility aids, and social isolation.
- Poor or no response to treatments that are usually effective.
- Repeated changing school or primary health care provider.

As previously highlighted, between 30 and 70% of women responsible for FDIA behaviours also report falsified symptoms themselves (i.e. may be experiencing factitious disorder; Ban & Shaw, 2019; Bursch et al., 2021; Yates & Bass, 2017), and it is also common for those responsible for FDIA behaviours to falsify illness in the siblings of children with legitimate illnesses (Bursch et al., 2021). Assessing potential illness falsification in the wider family or whānau can therefore be informative in identifying cases of FDIA with individual children or young people.

A systematic review of screening tools for child maltreatment identified one promising screening tool for the early detection of FDIA (McTavish et al., 2020). This screening tool comprises 15 items, with scores equal to or greater than 4 indicating possible FDIA; this threshold successfully identified 95% of FDIA cases in validation trials, and falsely identified only 4.4% of control cases (Greiner, Palusci, Keeshin, Kearns, & Sinal, 2013). The items included in this screening tool are presented in Appendix A.

Educational professionals should also be vigilant to the warning signs of medical child abuse within school settings

As previously mentioned, cases of medical child abuse may also occur within educational settings. Because these children often do not require hospitalisation or other intensive medical interventions to address their needs, educational professionals also need to be informed and vigilant as to the potential for children to be abused through FDIA (Frye & Feldman, 2012). Some warning signs for medical child abuse presenting in an educational context include (Ayoub et al., 2002, p. 158):

- A child who has one or more educational/behavioural problems reported by a parent/caregiver that are not identifiable through assessments or teacher reports, or appear more severe than assessments consistently indicate.
- Symptoms reported do not follow the expected pattern for the disorder the child is reported to have.

- The child's symptoms do not respond to treatment or follow an unusual course that is persistent, puzzling, contradictory and/or unexplainable.
- Educational, psychological and/or physical findings that are highly unusual, discrepant with history, or physically or clinically impossible. Independent educational testing can be helpful to substantiate these findings.
- The signs and symptoms of a child's disability do not occur in the parent or caregiver's absence. Careful observation and monitoring may be necessary to establish this causal relationship.

Key medical child abuse warning signs may also be present in social media and other online posts

Research suggests that the online 'footprint' of parents and caregivers engaging in medical child abuse may also provide useful early warning signs for professionals engaged in the care of children and young people. In particular, a review of three cases of FDIA in Seattle, USA indicated that social media or other online posts made by parents or caregivers responsible for medical child abuse behaviours may differ from those created by families or whānau with legitimately ill children (Brown, Gonzalez, Wiester, Kelley, & Feldman, 2014). Whereas the latter tend to make posts seeking social support through informing and updating others about the progress of their child, posts created in cases of FDIA tended to use dramatic language and complex stories to exaggerate their child's experiences and symptoms. These posts also often included detailed, gruesome information, and tended to refer to a strong fear that the child would die (without medical observations to support these fears).

Based on their study, the authors provided a list of FDIA warning signs that can be identified in online social media or blog posts (Brown et al., 2014, p. 493):

- The blog's author seeks sympathy for his/her own tribulations caring for a chronically ill child.
- Blogs focus on the caretaker's difficulties, instead of the child's needs.
- Blogs dramatise the child's illness and caretaker's efforts.
- Blogs include graphic images of the child's medical therapies.
- Blogs share the child's medical information publicly with a wide audience, instead of with close family acquaintances.
- Blog content contradicts physician statements and the child's actual medical findings.
- Blogs describe a downhill illness course, which contrasts with the child's actual medical status.
- Blogs suggest an adversarial relationship between the medically knowledgeable caretaker and the physicians who are unable to or lack the skill to diagnose the child's problems.
- Blogs indicate that "Wish" foundations have been approached directly by the parent or caregiver.
- Blogs solicit funds from strangers to help the family care for a sick child.

Confirmation and diagnosis of suspected medical child abuse

It is important to retain focus on the harm experienced by the child, rather than on obtaining a diagnosis

Importantly, a diagnosis of FDIA is not required to determine that abuse or neglect has occurred. Misrepresenting symptoms or medical history, or requesting medical intervention to the point of over-medicalisation can be harmful and potentially fatal regardless of the cause or motivation (Bursch et al., 2021; Hornor, 2021; Precey, 1998). Therefore, even though there may not be the presence or evidence of parental or caregiver motivations that fit within the diagnosis of FDIA, protecting children from further harm in cases of falsified, exaggerated or induced illness should be the primary concern of professionals (Ban & Shaw, 2019). In this respect, particularly in the initial stages, the focus of professionals responding to the case should be focussed on the effects of the behaviour on the child, rather than on obtaining a diagnosis of FDIA (Precey, 1998).

Similarly, it is important to remain vigilant to the possibility of misdiagnosis or false accusations of FDIA, including the possibility that highly anxious parents or caregivers may be motivated to request unnecessary testing or intervention, with no underlying motive of intending to induce false illness or disorder in their child. Again, this prompts a primary focus on first understanding the harm that has or is being caused to the child, and how this should be addressed. This involves taking a nuanced and thorough approach to assessing the best ways in which child and family or whānau safety and wellbeing can be supported, given the particular circumstances pertaining to each case.

Separation of the child from the parent or caregiver may be required to detect falsification of symptoms

Separating the child from the parent/caregiver suspected of engaging in FDIA behaviours may be required during assessments to determine the extent to which the parent or caregiver may be responsible for the symptoms and behaviours observed in the child. At the extreme end, sometimes separation for a few days (e.g., involving a hospital stay) may be required to adequately assess the child's symptoms and behaviours where there is no possibility of interference from the suspected parent/caregiver (Abdurrachid & Gama Marques, 2020; Hornor, 2021). This process is referred to in the literature as a 'separation test'.

That said, some experts argue that separation tests unfairly bias the investigation against parents and caregivers, as they tend to exclude alternative hypotheses for any observed improvement during separation and be conducted by biased observers (Pankratz, 2010). It is instead suggested that parents and caregivers should be included in the process of determining whether a case meets the criteria for FDIA, including allowing their input into deciding which behaviours will be observed, who will observe them, and how it will be decided whether the child's symptoms have likely been falsified. This appears to be a minority view within the literature, however.

There is some suggestion in the literature that the use of covert video surveillance can also be useful for building evidence for FDIA. However, there are concerns that taking this approach allows for the continuation of abuse merely for the sake of obtaining evidence. Additionally, complex legal and ethical issues are involved in the use of covert video surveillance in public areas such as hospitals. For this reason,

separation tests are generally the preferred option (Abdurrachid & Gama Marques, 2020).

Record-based behavioural analysis is the most reliable method for identifying cases of FDIA

It is very unusual for parents or caregivers responsible for FDIA behaviours to be 'caught in the act' of falsifying medical information or inducing illness in their victims (Glaser, 2020). Additionally, health care providers (including mental health experts) do no better than the average person in detecting whether someone is lying or deceptive in an interview (Bursch, 2018). For this reason, FDIA cannot be ruled out only on the basis of clinical interviewing or psychological testing (Sanders & Bursch, 2020).

Instead, the literature suggests that the most reliable method for identifying cases of FDIA is to conduct an exhaustive, systematic review of the child or young person's medical records, including notes regarding the parent/caregiver's behaviours in advocating for medical intervention on behalf of their child (Bursch et al., 2021; Doughty, Rood, Patel, Thackeray, & Brink, 2016). The goal in this review is to identify patterns of behaviours and related symptomatology in the child that may indicate falsification, including exaggeration, fabrication, simulation and/or induction behaviours. This review is referred to in the literature as a 'record-based behavioural analysis', and can be conducted by any professional with expertise in the evaluation of FDIA.

These record-based behavioural analyses often provide clearer pictures of the overall situation when a chronological summary of the medical records is presented in a table (Bursch et al., 2021). This chronological summary allows professionals to assess the trajectory of symptoms, illness and/or disorder over time, and link this trajectory with associated behaviours of family members and the general pattern of healthcare-seeking. This information can then be used by professionals to decide whether there is sufficient evidence for a formal diagnosis or allegation of FDIA.

Keeping systematic records of a child's engagement with medical care professionals that are shared across providers has also been suggested as a potential prevention strategy for FDIA (de la Cerda Ojeda, Muñoz-Cabello, Lanzarote-Fernandez, & Gomez de Terreros, 2010).

Diagnosis of FDIA is based on the parent or caregiver being purely motivated by psychological needs

According to the DSM-5, the following criteria must be met for a diagnosis of FDIA (American Psychiatric Association, 2013):

1. Falsification of physical or psychological signs or symptoms, or induction of disease or injury in another, which involved deception.
2. The individual presents the victim to others as injured, ill, or impaired.
3. The deceptive behaviour is present even in the absence of external motivation or external incentives.
4. The behaviour is not explained by another mental disorder.

To be diagnosed with FDIA, the parent or caregiver must be assessed to be primarily motivated by psychological need. Other possible mental health issues that may be driving the behaviour must also be ruled out, including anxiety disorders, psychotic disorders, 'vulnerable child syndrome', and autism spectrum disorder (Bursch et al., 2021; Pacurar et al., 2015). The individual making the diagnosis must also rule out other diagnoses or explanations for the child's history and presentation, including: the potential of false allegations being made against the parent or caregiver; other forms of child abuse (i.e. where the parent or caregiver does not intend to falsify illness or other medical conditions); and parental noncompliance (Rogers, 2004). Instead, a diagnosis of FDIA requires identified deception that is intended, planned and concealed (Abdurrachid & Gama Marques, 2020; Rogers, 2004).

This assessment should be carried out by a qualified mental health professional, as parents or caregivers responsible for FDIA behaviours can often present as appropriately concerned and display relatively normative levels of functioning (Bursch et al., 2021). Identification of motivations can also be difficult as it is common for those responsible for FDIA behaviours to deny having engaged in the behaviour, or to show a lack of insight into why they might have engaged in harmful behaviours (Bursch et al., 2021). However, intentional deception or manipulation on the part of the suspected parent or caregiver is a key differential marker.

Diagnosis and reporting rates of medical child abuse are low due to a tendency to trust parents and caregivers

As previously mentioned, it is generally accepted in the literature that the true prevalence of medical child abuse is unknown due to the high rate of unreported or unidentified cases. Cases go unreported for a number of reasons, including healthcare providers often requiring a strong degree of certainty before reporting their suspicions (Hornor, 2021).

Another key reason why medical child abuse identification and reporting rates are so low is because healthcare providers have a tendency to trust the accuracy of information provided by parents and caregivers, and may order further treatments or tests because they think they are necessary or to reassure 'worried' parents or caregivers (Davis et al., 2019; Hornor, 2021). This high level of inherent trust in parents and caregivers has been found to be the most common reason for missed diagnoses in medical child abuse cases (Hornor, 2021). There is also some suggestion that doctors may be reluctant to raise concerns about medical child abuse because of the extreme complexity of these cases and allegations, including the difficulty in obtaining required evidence, the need to involve child protection agencies, and unfamiliarity with the best course of action to take (Davis et al., 2019).

There is often a long delay between the onset of abusive behaviours and a formal diagnosis being made

Even in cases that are identified, months or even years can go by between the onset of the abusive behaviours and eventual diagnosis, and cases are often not identified until the child has already experienced significant harm (Ban & Shaw, 2019; Hornor, 2021). Research suggests that the average time between onset of symptoms and diagnosis of FDIA is between 1 and 4.5 years (Dye et al., 2013; Pacurar et al.,

2015), although promisingly, one New Zealand-based study found that time to diagnosis was reduced from an average of 23 months in cases where child protective services were not involved, to an average of seven months where child protective services were involved after the suspected FDIA was initially identified (Denny et al., 2001).

These extended delays in identifying cases of FDIA are somewhat to be expected given that FDIA is not an event, but a pattern of problematic behaviour over time (Zeitlin, 2016). In some cases, the large number of professionals typically involved in responding to cases of FDIA can also cause delays to formal diagnosis (Ban & Shaw, 2019). Adding further complexity, the identification of the true motivations on the part of the parent or caregiver is required for diagnosis, but there is currently no best practice guidance on how these motivations are most effectively ascertained (Rogers, 2004)⁷. These issues further highlight the need for awareness of the potential warning signs for FDIA, and systematic approaches to the assessment and identification of suspected FDIA cases outlined above.

Best practice for the management of medical child abuse

Responding to medical child abuse cases: general principles

The safety of the child is the first

The ultimate goal of any response plan in cases of medical child abuse is to stop the abuse from occurring, to ensure that the child and any siblings are safe, and to allow for the prevention of medical child abuse in the least restrictive means possible (Hornor, 2021). It is also important that genuine illnesses or disorders experienced by the child are not ignored by medical professionals after a case of medical child abuse has been diagnosed (Glaser, 2020).

In this way, some experts suggest that the child protection response processes in cases of FDIA should mirror those used in cases of acute sexual abuse or non-accidental-injury, in that the first priority should be the safety of the child(ren) rather than pursuing evidence for the prosecution of the parent or caregiver (Glaser, 2020; Roesler, 2018). As such, best-practice responses to cases of FDIA commonly take the following path: identifying the abuse; stopping the abuse (including ceasing unnecessary medical care); planning for ongoing safety; reversing the effects of the abuse on the child(ren); accessing psychological treatment for children, parents or caregivers, and other family and whānau members; and, preserving the integrity of the family or whānau where possible (Roesler, 2018).

⁷ As previously mentioned, problems with ascertaining the true motivations of the parent or caregiver has led some experts to abandon the use of the term FDIA in favour of terminology that does not require knowledge of parental motivations, such as 'falsified or induced illness by a carer' or 'medical child abuse' (Craft & Hall, 2004; Davis et al., 2019; Roesler, 2018).

Professionals responding to cases of FDIA may or may not decide it is necessary for the child and their siblings to be removed from the care of their parents or caregivers before, during and/or after the response plan is being implemented (see the “*Safety considerations when working with families and whānau affected by FDIA*” section below for further discussion regarding this decision). In either case, it is important to attempt to work with the parents and caregivers where this is safe to do so, as safe reunification of families and whānau is generally considered to be the best outcome for children (Roesler, 2018).

As mentioned above, the first step of responding to potential cases of FDIA is to verify suspicions of falsification or potential induction of illness or impairment (Bursch et al., 2021). FDIA is a notoriously difficult form of abuse to recognise and diagnose, however it often takes just one vigilant health or social care provider to begin the process of assessment and formal diagnosis (Ban & Shaw, 2019; Hornor, 2021). There is also some suggestion in the literature that due to the high rates of missed diagnosis, health care professionals may want to err on the side of considering the possibility of FDIA in any case involving differential diagnosis (Doughty et al., 2016).

Given the large impact of the harm experienced by children and young people affected by FDIA, once a case is suspected it is also important to rapidly consider and minimise any recommendations for treatments, testing, or interventions that might perpetuate the harm experienced by the child, including exemptions from school attendance, prescriptions, or invasive interventions or procedures (including mental health interventions) (Bursch, 2018).

Multi-disciplinary, collaborative approaches to the management of FDIA cases are key

The literature highlights the importance of multi-disciplinary, coordinated approaches for the response and management of FDIA cases, especially as contact with multiple healthcare providers and a lack of communication between these providers has often allowed the FDIA abuse to continue undetected up until that point (Ban & Shaw, 2019; Bursch, 2018; Criddle, 2010; de la Cerda Ojeda et al., 2010; Ragaisis & Pearson, 2004). Establishing a multi-disciplinary response team including social workers, primary health care providers, mental health providers, and teachers is therefore a recommended initial step, after first ensuring the safety of the child and their siblings (de la Cerda Ojeda et al., 2010; Hornor, 2021).

Ideally, this collaborative approach should include (Bursch, 2018; de la Cerda Ojeda et al., 2010):

- ensuring that all parents/caregivers are involved in regular contact or communication with the professionals involved
- regularly meeting with other professionals involved with the family or whānau to compare notes and observations, and coordinate plans
- alerting other professionals to potential issues with the information being provided by the suspected parent or caregiver
- consulting with an FDIA expert to discuss response and management options.

The objective of this broader multi-disciplinary team is to ensure the safety of the child and their siblings by establishing common management guidelines and developing an intervention and monitoring plan for the family or whānau. Some issues that should be considered by the multi-disciplinary team include (de la Cerda Ojeda et al., 2010, p.885):

- Establishing a process through which the parents or caregivers can seek help for new, genuine symptoms or illnesses experienced by the child. This process should avoid presentation at emergency rooms or after-hours medical services, as these routes typically involve contact with healthcare professionals who are not aware of the child's full history and suspicions regarding FDIA.
- Allocating a team leader who will coordinate the multidisciplinary team. Ideally, this person should be an FDIA or child abuse specialist (Hornor, 2021) who is able to build and maintain a trusting relationship with the parents or caregivers, and strong communication with the child's primary health care provider.
- Developing a plan for actions to be taken by the members of the team.
- Deciding which (if any) legal actions should be taken.
- Planning when the family or whānau should be made aware of the suspicions or evidence relating to FDIA.
- Establishing a monitoring plan in coordination with available community resources.

Additionally, documentation is crucial at all stages in the response to suspected or identified cases of FDIA (Ban & Shaw, 2019; Dye et al., 2013).

Some experts recommend assigning at least two social workers to each case of FDIA

It has been recommended that at least two social workers are assigned to each FDIA case: one to manage most of the direct communication with the parent or caregiver responsible for FDIA behaviours, and the other to carry out other social work tasks that are required (Precey, 1998). This also allows the social workers to work as a team to: verify information; debrief after sessions with the family or whānau; share the emotional load associated with FDIA cases; compare notes, observations and assessments; and ensure that the focus of the work remains on the wellbeing of the child.

Due to the extreme harm caused to children and young people affected by FDIA, it is common for professionals to have a strong emotional reaction to the parent or caregiver responsible (Precey, 1998). It is also common for stereotypes to colour professionals' perceptions of the case; for example, people tend to view females responsible for FDIA behaviours as more deviant than males (Anderson et al., 2018). Having two social workers assigned to each case can therefore also be helpful to identify and challenge automatic assumptions or responses that are more emotionally-driven, rather than based in the facts of the case. Regular clinical supervision sessions are also crucial for addressing the emotional and professional challenges inherent in working with cases such as FDIA (Precey, 1998).

Transparent, solutions-focussed discussions should be held between the multi-disciplinary team and parents/caregivers

After the multi-disciplinary team has been established, the team of professionals involved in the case may want to hold a family meeting to inform the parents/caregivers of their findings and to discuss a pathway forward (Bursch et al., 2021; Cardona & Asnes, 2019; Hornor, 2021). One of the goals of this meeting is to build a basis for therapeutic alliance between the parents or caregivers and the multi-disciplinary team; some experts therefore suggest that this meeting be considered an “Informing Session” rather than a “confrontation” (Cardona & Asnes, 2019; Doughty et al., 2016). It is important that all parents/caregivers are included in this meeting to ensure that all parties have access to the same information. Professionals involved in the session should also ensure that they are well-prepared for the discussion by carefully reviewing all medical, social work, and police records, and any other form of documentation or evidence built up in the case (Bass & Glaser, 2014).

The Informing Session should involve a frank, transparent discussion of the child’s current medical condition, concerns about the parent or caregiver’s distortion of their child’s medical condition and the information they have provided about the child’s medical history or symptomatology (Hornor, 2021). This discussion should be supported by well-documented evidence (Cardona & Asnes, 2019).

Discussion should also be held to determine a care plan for the child that is supported by their parents or caregivers (regardless of whether the children have remained in the home during this period). It is often recommended that one agency involved in the multi-disciplinary team takes responsibility for ensuring this plan is implemented (Hornor, 2021). There are a number of different considerations that should be included in the care plan developed with the family or whānau. These include (Glaser, 2020):

- Child’s health and functioning: planning a coordinated, multi-disciplinary approach that includes paediatrics, community health providers, education providers, and child protective services. This includes carefully considering the need for any further medical interventions (or discontinuing unnecessary care or mobility aids) and implementing a normalised eating and feeding pattern (if relevant).
- Education: identifying any needs for supports at school, and developing a plan for re-establishing full school attendance if the child had not been attending school regularly.
- Child and family or whānau mental health: identifying and implementing appropriate mental health supports and services for the family or whānau; see below for further discussion on potential interventions in FDIA cases.
- Regular review: planning for regular review and update of the care plan until the aims have been fulfilled and the wellbeing of the child and family or whānau has been restored. Social workers are often best-placed to conduct these short- to medium-term reviews (de la Cerda Ojeda et al., 2010).
- Long term follow-up: planning for regular check-ins with the family or whānau, in recognition of the possibility of re-abuse until the parent or caregiver responsible for the harm has appropriately addressed the causes of their

behaviour. Education and primary health care providers are often the appropriate professionals to be conducting these longer-term follow-ups and monitoring for signs of re-abuse.

It is unlikely that confronting the parent or caregiver with evidence of their abuse will stop the FDIA from continuing (Abdurrachid & Gama Marques, 2020). Instead, close monitoring and management of the case is required after initial meetings with the family or whānau.

Discussion of medical child abuse with children

There is limited information on the best ways to inform children and young people about the FDIA-related harm caused by their parents or caregivers. That said, Cardona and Asnes (2019) recently proposed a team-based approach to disclosure with children and young people. They propose a number of strategies, including:

- Discussing the benefits of disclosure with the parents or caregivers, including that children and young people prefer to know the truth about their health, and that it would be difficult to keep ‘medical secrets’ from children and young people as the resultant care plan is implemented.
- Being honest with children and young people about the cause of their medical issues.
- Acknowledging where medical or other health professionals may have failed to detect the abuse and inadvertently perpetuated harm through unnecessary procedures or treatments.
- Clearly explaining to children and young people what the unintended adverse outcomes of the parent or caregiver’s abuse and resultant medical errors might be.
- Considering ‘staged disclosure’, particularly where the victim is a young child or a particularly high level of harm was perpetrated. This is where medical information and safety planning is provided to the child or young person gradually, enabling the broader team to support the child or young person’s coping, and adjust approaches to future disclosure based on their response.

Training staff in responding to medical child abuse cases should be carefully planned and implemented

Best practice for the identification and response to cases of medical child abuse is often a gap in knowledge and practice for health and social service providers (Doughty et al., 2016). As such, it is recommended that organisations and agencies develop specialised policies and trainings to guide professionals as to how to appropriately respond to cases. One review paper discusses appropriate responses to training multi-disciplinary professionals following the death of a child caused by FDIA (Horwath & Tidbury, 2009). Although only a proportion of cases will result in the death of the child, some of these suggested approaches may be appropriate for training staff following involvement in a case of FDIA more broadly. These suggestions include:

- Ensuring that managers responsible for implementing training are aware of the impact of any existing or previous cases on staff, and the potential implications for implementing training.
- Conducting both inter- and intra-agency training; trainers in both instances should be aware of the training being offered across the workforce.
- Including senior and middle managers in training, as well as frontline staff.
- Engaging trainers with appropriate specialist knowledge, including skills in managing group processes, and considering having two trainers lead the training (so that group dynamics can be managed appropriately).
- Ensuring that the trainers are well-prepared for potentially strong emotional responses from participants, including having agreed strategies for addressing participant responses or behaviours that might impede training (e.g., asking for unnecessary levels of detail about past cases; derailing conversations).
- Making training voluntary; professionals intimately involved in the case may experience emotional triggers or flashbacks if they are not in a space where they can cope with the content presented.
- Involving supervisors in the selection of training participants, in order to identify potential issues or concerns with certain staff members being in a space to make the most of training.
- Including training content such as: psychoeducation about FDIA and how it might present, including early warning signs; assessment planning and intervention with FDIA cases; and provision of both a trainer guide and training participant handbook.

Safety considerations when working with families and whānau affected by medical child abuse

There are immediate safety concerns for children following the detection of medical child abuse

There are ongoing safety concerns for children after a case of medical child abuse has been identified. Parents or caregivers may increase the intensity and severity of their abusive behaviours following an initial confrontation (or suspicion that they are being investigated), in order to “prove” that their child really is sick (Anderson et al., 2018; Ban & Shaw, 2019; Bass & Glaser, 2014). This highlights the need to carefully consider the amount and type of contact allowed between the suspected parent or caregiver and their child(ren) in the initial stages after discovery, as an intervention plan is being developed.

A recent review of 81 cases of medical child abuse found that separation of parent/caregiver and child was the most common outcome of medical child abuse cases (occurring in 37% of cases); the child continued to live with the parent or caregiver responsible for FDIA behaviours in only 4% of cases (Abdurrachid & Gama Marques, 2020). That said, it is not clear whether families or whānau were eventually re-united in these cases where a decision was made to initially remove the children from the home.

Based on her experience working with cases of FDIA, Precey (1998) identified three key questions that could be asked during assessment in order to guide decisions around the safe management of a case. These are:

- *What are the parent or caregiver's real feelings about the child?* This is often determined by understanding what sits behind what the parent or caregiver is saying about the child. Risk to the child is higher in cases where the parent or caregiver is ambivalent or negative towards their parenting role, which could result in feelings of resentment or envy of the child.
- *What is the ability of the parent or caregiver to imagine what life will be like when the child is well?* The answer to this question indicates how central the illness of the child has become to the general functioning and coping ability of the parent or caregiver. The ability of the parent or caregiver to accept the possibility that their child's health might improve and to envisage themselves as a parent of a well child is a positive sign, even if the parent or caregiver continues to deny their abusive behaviours.
- *Is this parent or caregiver more than extremely anxious or overprotective towards their child?* Answering this question requires considering whether there is something more secretive, unhealthy or dysfunctional in the relationship between the parent/caregiver and child, beyond the parent or caregiver being 'merely' overprotective.

There is a high potential for re-abuse of medical child abuse victims and/or their siblings

The potential for re-abuse during or after intervention in an medical child abuse case must also be considered. Research suggests that up to 20% of siblings born after the removal of the targeted child are then abused themselves, and that re-abuse of medical child abuse victims is common if they remain with the parent or caregiver responsible for FDIA behaviours, occurring in 17% of mild cases and up to 50% of moderate cases (Bursch et al., 2021; Hornor, 2021; Sanders & Bursch, 2020). As mentioned previously, it is also common for other children in the household to be subject to the same form of abuse.

It is therefore important to consider the safety of other children in the household and to make careful decisions about the level of ongoing contact or caregiving from the suspected parent or caregiver during the entire response process. In particular, the risk of continued abuse or re-abuse is higher and more severe for (Abdurrachid & Gama Marques, 2020; de la Cerda Ojeda et al., 2010; Hornor, 2021):

- younger children (i.e. under the age of five)
- cases that have involved deliberate suffocation or poisoning
- families or whānau where there has been an unexplained death of another family member
- parents or caregivers that also suffer from factitious disorder
- cases where members of the family or whānau experience substance use issues or engage in other antisocial behaviours
- cases where the parent or caregiver continues to report new symptoms or conditions after the suspicions of medical child abuse have been discussed with them

- cases where the child's symptoms or illness continues to fail to respond to treatments that are usually effective.

In these cases, removing the child from the home may be necessary to ensure their safety.

There are some circumstances in which it may be safe for children to remain at home, particularly where there is cooperation from the parents or caregivers

That said, it may be safe for the child to remain in the home while professionals are supporting the parent or caregiver to address their behaviour, or if the other parent or caregiver is separated from the parent or caregiver responsible for FDIA behaviours (Bass & Glaser, 2014). If the parents or caregivers accept and follow the recommended intervention and care plans, it may be in the best interests of the child to remain at home, especially considering that many children affected by FDIA experience enmeshment with the parent or caregiver responsible for FDIA behaviours, and separation can be emotionally distressing for them (Hornor, 2021).

However, where the child remains at home it is crucial that the compliance of the parents or caregivers is closely monitored, and that placement decisions are revisited if there is any sign of continued falsification or symptom persistence. Warning signs that the child's wellbeing is in danger include parent or caregiver disappointment when their child's health appears to be improving, or refusal to implement the child's care plan as agreed by the wider professional team (Hornor, 2021).

Some parents or caregivers can engage in self-harm after they have been confronted with evidence of their abuse, and others may attempt to flee (Bursch et al., 2021).

Factors to consider in assessment

Assessments should consider broad range of functioning across the family and whānau

A full assessment of the family and whānau should be conducted by social workers after a case of medical child abuse (or suspected medical child abuse) has been identified or referred, with the aim of identifying the nature of harm to the child (and potentially their siblings), and the current needs (including mental health needs) of the child, the parent or caregiver responsible, and other family or whānau members (Glaser, 2020). In particular, the social work assessment should include (de la Cerda Ojeda et al., 2010, p. 886):

- the parents' or caregivers' ability to provide basic material and emotional care
- the educational and social needs of the child and their siblings
- the degree of parent-child interaction and type of attachment between them
- socioeconomic characteristics and circumstances of the family
- construction of the clinical and social history of the child and their family or whānau

- recognition of the family's requirements, expectations and concerns
- identification of information and support that may be required throughout the entire care process.

Although in some cases only one child in the family or whānau has been targeted by the harmful behaviours, it is also common for other children in the family or whānau to have been targeted simultaneously or sequentially to the initially-identified child (Glaser, 2020). Care must therefore be taken to assess the broader medical picture for all children in the family or whānau, to identify the scope of the abuse that has been occurring and which children appear to have been targeted by the abusive behaviour over time (Pacurar et al., 2015; Precey, 1998).

Due to the high level of comorbidity associated with FDIA (i.e. high rates of other mental health issues experienced by parents or caregivers responsible for FDIA behaviours), it is also important that any assessment considers the broader mental health needs of the child, parent or caregiver and other family or whānau members (Sanders & Bursch, 2020).

It is important to consider the possibility of unreliable information in conducting assessments

Parents or caregivers responsible for medical child abuse behaviours may have engaged in the deceit and manipulation of health and social service providers over a long period of time. Additionally, they are often in a precarious position whereby acknowledging their deceit may result in criminal prosecution, but continuing to deny their behaviour may result in the removal of their children (Precey, 1998). It is therefore important during assessment to keep in mind that reports or records of verbal symptom and medical histories may be inaccurate, and diagnostic tests, images, and other health or education records may be falsified or manipulated by the parent or caregiver (Bursch et al., 2021). A number of possible methods of mitigating these risks have been identified, including:

- obtaining all health and other records directly from past and present professionals engaged with the family, including schools
- contacting and regularly communicating with all caregivers and other important adults in the child or young person's life, such as teachers
- reviewing online blogging or social media activity from the parent or caregiver to assess whether online information matches with official records
- developing plans to systematically and objectively evaluate the medical claims being made, including separating the child or young person from the adult responsible for medical child abuse behaviours if possible
- contact other professionals engaged with the family to compare notes and observations of the family dynamics and suggested approaches to intervention or management
- flagging the records of the child or young person as being potentially unreliable
- being conservative and considered when making decisions regarding interventions for the child or young person, including potential school-based interventions, or potentially invasive assessment processes
- consult with an expert on medical child abuse and FDIA (Bursch et al., 2021).

It is helpful for referrals to contain complete and detailed information about what is known about the case so far

Social workers will generally be notified of potential cases of medical child abuse through referrals from primary healthcare providers. In order to conduct a thorough assessment of the circumstances for a particular family or whānau affected by FDIA, referrals to child protection agencies should ideally include (Glaser, 2020, p. 7):

- A clear explanation of confirmed diagnoses, including the implications for the child's wellbeing and functioning.
- Details of the warning signs which led to the concerns, and who observed them.
- Description of independent observations of the child's actual functioning, medical investigations and the consensus medical and professional formulation of the case.
- Whether the parents or caregivers have been informed about the suspicions or consensus regarding the medical child abuse diagnosis, and if so, the parent or caregiver's response.
- Description of the support offered to the child and their family or whānau to improve the child's wellbeing and reduce harm.
- A full description of the harm experienced by the child and their siblings (if applicable).

Intervention with families and whānau

Treatment of parents or caregivers responsible for medical child abuse behaviours is complex and often lengthy

Because of the patterns of denial of abuse and common comorbidities (e.g., personality disorders, mood and anxiety disorders), treatment of FDIA is often incredibly difficult and resource-intensive, and is typically court-ordered rather than undertaken voluntarily (Bursch et al., 2021; Sanders & Bursch, 2020). In particular, parents or caregivers who have co-morbid personality disorders, those who lack insight into their behaviour and empathy for their child, and/or those who engaged in more lethal behaviours (such as poisoning and suffocation) are less likely to ever be able to safely care for children (Abdurrachid & Gama Marques, 2020; Bursch et al., 2021).

Conversely, the likelihood of positive family and whānau outcomes (including reunification) is increased in cases where: the parent or caregiver acknowledges their abusive behaviours; the parents or caregivers demonstrate a willingness to work collaboratively with professionals; the multi-disciplinary team supporting the family or whānau are trained in supporting mental health recovery; and, specific stressors have been identified as potential triggers for the abuse (Bass & Glaser, 2014).

Effective forms of psychological treatment include dialectical behaviour therapy and trauma-focussed CBT

A recent review of 81 cases of FDIA found that treatment was offered to the perpetrator in only 10% of cases (Abdurrachid & Gama Marques, 2020). This highlights a gap in the current provision of psychological support in cases of FDIA.

Despite the complexity of FDIA intervention, some effective forms of psychological treatment have been identified in the literature. These include dialectical behavioural therapy (DBT), trauma-focussed cognitive behavioural therapy (TF-CBT), and narrative therapy (Bursch et al., 2021). Due to the high levels of experienced trauma among parents and caregivers responsible for FDIA behaviours, trauma-informed approaches to the provision of treatment are preferable (Sanders & Bursch, 2020). Formal needs assessments should be conducted by a mental health professional to determine the best intervention pathways on a case-by-case basis (Abdurrachid & Gama Marques, 2020).

Sanders and Bursch (2020, p.141) propose the *ACCEPTS* model to guide treatment with both the responsible parent or caregiver and their partner or spouse:

- **Acknowledge:** the most important treatment goal is to acknowledge and take responsibility for (intentional and/or unintentional) specific, inappropriate behaviours that harmed or could have harmed the child(ren). This treatment goal is a prerequisite for the responsible parent or caregiver and their partner or spouse to recognise they have power over their own behaviours and can change them.
- **Coping:** this component of treatment aims to assist parents and caregivers to develop a wider range of effective coping strategies to manage their emotional needs, and to accept that their past behaviours were inappropriate coping mechanisms.
- **Empathy:** this component of treatment focusses on the development of empathy for their child(ren), including the demonstration of appropriate emotional responses to the harm, or potential harm, experienced by the child(ren).
- **Parenting:** this component of treatment aims to build the ability to recognise and make decisions that place the child's needs before the needs of the parents or caregivers.
- **Taking charge:** the goal of this component of treatment is for the parents or caregivers to recognise their power and utilise it appropriately. This recognises that many parents or caregivers are motivated by gaining power indirectly through the attention or nurturance gained from having a sick child, and many spouses/partners may feel disempowered by the other parent.
- **Support:** successful treatment must also include a support and monitoring system, such as supportive friends or family, and professional monitoring/oversight (e.g., by social workers).

Parents or caregivers responsible for medical child abuse behaviours can be considered successfully treated where there is: full acknowledgement of the abuse/neglect; empathy for their child(ren); and display of improved coping and parenting skills demonstrated under close monitoring and over a long time period (Bursch et al., 2021; Sanders & Bursch, 2020). There is no research that indicates the appropriate length of treatment for FDIA, although there is some suggestion that the parent or caregiver may not make meaningful progress in treatment if they are

unable to acknowledge their abusive behaviour within the first six months of treatment (Sanders & Bursch, 2020).

Treatment often focusses on building the skills of parents and caregivers to improve the overall wellbeing of their family or whānau

The intervention options outlined above, including DBT, TF-CBT and narrative therapy, often take a strengths-based approach to the prevention of medical child abuse through treatment of FDIA, including developing a plan for the child, supporting parents or caregivers to build the skills necessary to be safe and active participants in the care of their child, and focusing on building the overall wellbeing of the family or whānau (Abdurrachid & Gama Marques, 2020). This is in addition to supporting the parent or caregiver to acknowledge and take accountability for their abusive behaviours. Couples therapy is also recommended where there is apparent family violence or marital conflict, and the parents or caregivers plan to stay together or co-parent (Abdurrachid & Gama Marques, 2020).

Consideration should also be made as to the psychological and social needs of children affected by medical child abuse, and their family and whānau members

Children or young people affected by medical child abuse also often experience severe and chronic psychological, physical, social, and educational/occupational issues as a result of the abuse they have experienced (Bursch et al., 2021). Additionally, many children or young people are misled and manipulated to the point where they may be in denial about the abuse they have experienced and are dealing with the psychological effects of believing they are ill (Abdurrachid & Gama Marques, 2020; Bursch et al., 2021; Hornor, 2021). There are also reported “blended cases”, in which both the parent or caregiver and the child actively fabricate illness or disorder (Abdurrachid & Gama Marques, 2020).

As such, specialist psychological treatment is also recommended for children who have experienced this form of abuse/neglect, including support for educational and social re-integration. Family therapy may also be useful to re-build family and whānau relationships and trust where the parent or caregiver is able to acknowledge their abusive behaviour (Sanders & Bursch, 2020).

It is also important to recognise the psychological impact of medical child abuse on friends, other family members, professionals, and the wider community, including the psychological effects of realising they have been deceived by the parent or caregiver responsible (Bursch, 2018). Additionally, the siblings of the targeted child may have had their needs neglected during the perpetration of medical child abuse behaviours, or feel that they have been neglected (Abdurrachid & Gama Marques, 2020; Glaser, 2020). For this reason, consideration should also be made as to the possible psychological treatment needs of other individuals connected to the affected family or whānau.

Conclusion



Conclusion

Given that an estimated 0.5-2.0 per 100,000 children are affected by medical child abuse, most practitioners will seldom or never encounter a case during their professional career. That said, medical child abuse through FDIA is a complex and serious disorder that often has substantial and long-lasting negative effects on affected families and whānau. Through both direct and indirect means, parents or caregivers responsible for medical child abuse behaviours cause substantial physical, emotional and psychological harm to their children, other family and whānau members, health and social service professionals, and their wider communities. Given that the disorder involves perpetrating abuse against children and young people through the induction of illness or disorder and/or creating a false need for invasive medical tests and treatments, children and young people can experience permanent injuries or developmental delays, and in an estimated 10% of cases, may die as a result of the abuse.

Due to the substantial negative effects of medical child abuse, evidence-informed practice is essential for preventing and intervening in suspected cases of medical child abuse including that experienced due to FDIA. However, due to a low level of general awareness, a tendency to trust the reports of parents and caregivers, and the complexity in establishing evidence for individual cases, cases of medical child abuse often go unreported and undiagnosed; even in cases where medical child abuse is identified, there is often a long delay between the onset of the abuse and the diagnosis. This highlights the need for improved training for professionals engaged in the care of children and young people, so that early warnings signs can be identified and acted upon.

Although recognising medical child abuse, and obtaining a formal diagnosis of FDIA is challenging due to its reliance on identifying the motivations of the suspected parent or caregiver, the lack of a diagnosis does not prevent professionals from intervening to protect the safety of children. Ultimately, professionals should focus on the effects of the parent or caregiver's behaviours on the wellbeing of the child and their siblings, regardless of the motivation for these behaviours. The literature is clear that responding to cases of medical child abuse (formally diagnosed or not) requires a collaborative, multi-disciplinary approach between a team of professionals focussed on ensuring the safety and wellbeing of the family or whānau.

Parents or caregivers should be actively involved in planning the pathway to recovery for their family or whānau where it is safe to do so, as this provides an opportunity for parents or caregivers to acknowledge the harm they have directly or indirectly caused, and to build skills to better meet the needs of their children in future. This process should be carefully managed due to the high risk of re-abuse of children, however specialised psychological treatment (such as dialectical behaviour therapy and trauma-focussed CBT) can assist parents or caregivers to address the causes of the abusive behaviour. Specialised treatment is also recommended for victims of medical child abuse and their siblings.

There were some notable gaps in the literature that may affect the translation of findings into policy and practice for Oranga Tamariki. Most prominently, there was no specific research or information on medical child abuse as it relates to whānau Māori. Similarly, there was no specific research on how FDIA affects other ethnic

groups within Aotearoa New Zealand, including Pacific people. At a broader level, only one, relatively dated study was identified that looked at medical child abuse and FDIA within the context of Aotearoa New Zealand. Although existing research suggests that medical child abuse and FDIA presentations are generally consistent across countries and cultures, it is important that these gaps in understanding are addressed through future research.

Other notable gaps were also identified in the literature, including a lack of social work-focussed research and reviews. Instead, most of the information presented in the current literature scan is based in research and guidance developed from a medical lens and intended for primary health care providers. This limited our ability to comment on assessment, planning and intervention strategies specific to social work practice. Given the large negative effects of medical child abuse and the substantial role that social workers play in safeguarding children and restoring family and whānau wellbeing in these cases, it is vital that future research considers what best practice looks like from a social work perspective.

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Appendix A: Medical child abuse screening instrument (Greiner et al., 2013)

Note: a score of 4 or greater is indicative of possible FDIA.

1. Caregiver has features of Munchausen syndrome [factitious disorder] (multiple diagnoses, surgeries, and hospitalisations, with no specific diagnosis).
2. Caregiver has received counselling/psychiatric care.
3. Caregiver has personal history of child abuse.
4. Caregiver leaves hospital against medical advice or insists on transfer.
5. History of cyanosis [bluish discolouration of the skin or lips caused by inadequate levels of oxygen in the blood].
6. Care at more than one hospital in six months.
7. Consults with one or more subspecialists.
8. Illness abates when patient is out of care of the primary caregiver.
9. More than one episode of apnea post-discharge from nursery.
10. Bruising or trauma to face/neck.
11. Prescription or request for apnea monitor.
12. Chronic diarrhea with or without vomiting for more than two weeks.
13. Chronic vomiting or diarrhea without definite diagnosis.
14. Erratic drug levels.
15. Toxic drug levels on more than one occasion.