Training and education in the Barnahus model: State of the art [EN Version]

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CONTENTS

1. Exploring the Barnahus model

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1.1. Background

In the mid-1980s, a group of services called Children's Advocacy Centers (CAC) were created in the United States with the aim of reducing what was termed *revictimization* – that is, victimization arising from the person's contact with the system of assessment and notification, which is not always well adapted to the needs of children and adolescents. The CACs proposed an alternative model designed to provide an adequate response to the needs of child victims of violence. The US model was soon adopted in Europe, with the creation of the first Barnahus (Icelandic for "children's home") in Reykjavik in 1998. In the following years, other Nordic countries implemented their own Barnahus systems, creating a network of centres which shared a series of common characteristics and objectives but always respected the legal, social and cultural reality of each particular context. This is how the Barnahus model came into being. The inspiration of this model is the desire to act at all times in the best interests of the minor, to reduce revictimization, and to create an environment in which the child receives comprehensive care from a multidisciplinary team of coordinated expert professionals (Johansson et al., 2017). Currently, there are more than 50 Barnahus throughout Europe; as of December 2020 (see Promise webiste), the Barnahus Network has 22 member countries and is active in 39 different national contexts.

1.2. Key features of the Barnahus model

The Barnahus project originally took the CAC model as its starting point, adapting it to the European situation and establishing the common objective of providing an effective and respectful response to the well-being of children in cases of sexual abuse (Walsh et al., 2003). Currently, the model in place in most countries covers cases of sexual abuse and other types of violence as well. Thus, the central elements of the two models converge around the same baseline (Johansson et al., 2017). Broadly speaking, the key features of the Barnahus model can be summarized as follows:

• It is a multidisciplinary approach, which includes all the agencies and professionals engaged in the legal process and involved in providing the support and treatment necessary for child victims of violence.

• It is governed by the 'one door' principle: in a single environment, professionals must come to the child and not the other way around.

• It is described as a house containing four rooms representing the areas it covers: criminal investigation, protection, and physical and mental health.

• Its main objective is the prevention of revictimization by creating child-friendly, child-centred, and supportive settings in which the interaction of professionals and the environment will not cause additional harm to the victims.

• The centre must be a safe and neutral place for the child to relate his/her experience and be cared for by professionals without any risks to his/her well-being.

• The child does not testify in court; his/her testimony is taken in the same centre and used in the criminal proceedings, with all legal guarantees. In this way s/he does not have to appear personally in court.

The very concept of Barnahus contemplates a certain flexibility and variability, but with the intention of defining the common principles that govern the interventions and services of the model. The Barnahus quality standards (Halldorsson, 2017) guarantee the transfer and adaptability of the model to the different national contexts that make up the Barnahus network.

1.3. Evidence of its ability to reduce revictimization

The model seeks to reduce revictimization by applying evidence-based resources and techniques.

One of the key features of the model is that all professionals work under the same roof and form a multidisciplinary team. The effectiveness of multidisciplinary intervention in cases of child victimization has been emphasized in multiple studies (Herbert and Bromfield, 2019). The approach modulates the stress caused by the investigation process, and helps to reduce the risk of the development of trauma symptoms due to the intervention (Tishelman and Geffner, 2010). Likewise, the interaction of these teams of professionals with the child victims, and with their non-offending caregivers, obtains high levels of satisfaction with the process and the team when the response is coordinated (Bonach et al., 2010).

One of the strengths of this model is the degree of coordination and specialization of the professionals, but it should be borne in mind that professionals who work with children who have been abused may themselves suffer secondary trauma due to their constant exposure to the details of the victimization (Sprang et al., 2011). A recent study with professionals from Danish centres who work on the Barnahus model linked the secondary trauma suffered by their staff with social and cognitive functional impairment and also with burnout (Louison Vang et al., 2020). This serious consequence of the continued work with minors who are victims of violence must be taken into account in any model based on direct intervention with this group, and especially in the Barnahus model, in which professionals play a vital role by providing the best possible attention for minors; indeed, their capacity to do so may be negatively affected if they are not properly assisted and cared for themselves.

The ability of professionals to carry out their functions within these teams is often taken for granted. But the lack of specific training of educators, doctors and police officers can represent a real problem and can affect the well-being of children (Olson and Stroud,

2012). This is why another important issue is to assess professionals' knowledge and to provide regular training to ensure that they possess the abilities and skills expected of them.

Another key component of this model is the evidence-based forensic interview. Barnahus professionals apply the NICHD protocol, an interview guide for child victims which has high empirical validity (Benia et al., 2015). The team also works with other evidence-based tools for treatment such as trauma-focused cognitive-behavioral therapy (TF-CBT: Cohen et al., 2006), which is particularly useful for treating victims with post-traumatic symptoms and other disorders caused by victimization.

1.4. Comparative review of countries that provide data

The study by Nesvold et al. (2005) compared the services attending victims of sexual abuse and assault in the Nordic countries. These authors found that, in comparison with the forensic institutes run by the police in Denmark and Finland, the Barnahus centres in Iceland and Norway received and attended a higher number of victims. While the forensic institutes dealt mainly with more serious cases of assault and rape, the Barnahus centres dealt with a wider spectrum of cases, though less serious. However, the Barnahus centres took longer to attend to the victims than the forensic institutes, which in most cases were able to see them within approximately 24 hours – a deadline that the Barnahus centres met in only 50% of cases. Olson and Stroud (2012) warn that children attended in Barnahus may not receive care for long periods of time; they speak of notable variations in the case reports from centre to centre and stress the need to analyse them in depth.

In an analysis of the 22 Barnahus centres in operation in Sweden at that time, Kaldal et al. (2010) concluded that, when wellmanaged, the Barnahus centres perform substantially better than other forms of care and police intervention for child victims. The strong points of the Barnahus model are the fact that all the services are provided in the same place, which increases the sensation of safety, and the collaboration between the various professionals and disciplines involved, which provides a broader knowledge base for research and allows the actors involved to approach the intervention of children from different perspectives. On the negative side, poorly managed Barnahus centres presented structural problems similar to those found in classic care systems.

Since then, two more studies have examined the implementation of the Barnahus model in Sweden (Landberg and Svedin, 2013; Rasmusson, 2011) and found that it presents clearly positive results, such as improvements in research and the reduction of processing times. These authors also found that, in comparison with traditional models, Barnahus avoided excessive exposure of children to the different agencies and, once again, managed to increase children's sensation of safety due to the fact that the entire process takes place in the same physical setting. Among the points to take into account, the reports noted the time and effort required to launch a centre of this kind and to get it running. They emphasized that time is needed to develop adequate operating routines and to establish consensus and cooperation with the relevant authorities; they mentioned the high levels of care in the centres that are consolidated and are well run

compared to newer centres with less experience and lower levels of cooperation and local or state involvement.

In an examination of the evolution of the first six Barnahus in Norway, Stefansson et al. (2012) concluded that children attended there received better care than those interviewed by the police or in court and that there was a higher level of coordination between the judicial system and the support and treatment services. This study also mentions a series of issues that need to be resolved, such as the fact that not all children have access to the Barnahus, or that medical examinations are not always carried out at these centres. Other areas for improvement mentioned by the authors included the need to provide common training and to centralize the processes and the management model. They also noted the considerable differences between centres due to the different financial resources and staff levels, the approaches applied, and their dynamics. The authors proposed a thorough assessment of resource allocation and further studies of the feasibility of opening additional Barnahus centres.

In their report, Landberg and Svedin (2013) also referred to the evaluation carried out of the first six Norwegian Barnahus. They suggested that the deficiencies observed may be due to adverse local conditions, such as unclear and inadequate cooperation agreements, insufficient resources assigned to the centres, or national guidelines and legislation that do not conform to the model (or even contradict it).

1.5 Conclusions

Grounding its principles on evidence-based resources and techniques, the Barnahus model aims to reduce levels of revictimization. Its theoretical principles have sound scientific support, and the first studies that have analysed its effects on children's well-being have recorded positive results. However, as a new model, it has inevitably encountered certain problems that need to be resolved; similarly, the data on children of preschool age must be expanded (McGuire et al., 2021). In addition, the model should continue to be evaluated, both in its context of origin in Scandinavia and in the other countries that have joined the project in recent years. Indeed, outside the Nordic countries, no data are as yet available on the model's implementation and results.

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2. Evidence-based training and education in child sexual abuse

Laura Andreu

2.1. Introduction

One of the most important aspects in the prevention of secondary traumatization is the training of professionals who work with victims (Campbell & Raja, 1999). For professionals, training promotes the acquisition of new knowledge (Martin & Silverstone, 2016) and changes attitudes (Pereda et al., 2011) that have a direct impact on their interactions with victims (Fox & Cook, 2011). From the professionals' own perspective, training programmes are helpful and useful (Rheingold et al., 2012) and give them assurance and self-confidence in the performance of their professional role (Bond & Dogaru, 2019; Kenny et al., 2019).

In recent decades, a variety of programmes in the area of child sexual abuse have been implemented for various groups. For example, programmes targeted at the general public have sought to give tools to adults who work with children so that they can identify possible cases of abuse and take steps (Martin & Silverstone, 2016; Rheingold et al., 2015).

Programmes have also been directed at education professionals (Hanson et al., 2008), because the time spent by children at school puts teachers in a privileged position to spot the social and emotional risk indicators, inappropriate behaviours and academic consequences of child sexual abuse (Scholes et al., 2012). Studies conducted in Spain show that experience and expertise in child abuse among professionals who work at schools has a significant influence on the reporting of suspected abuse and maltreatment to the authorities (Greco et al., 2017).

In addition, there are programmes aimed at law enforcement offers, given that they are typically victims' first point of contact with the process of notification and reporting (Stone et al., 1984).

Lastly, there are training programmes for healthcare professionals aimed at improving the examinations and assistance given to victims (Kenny & Abreu, 2015; Palusci & McHugh, 1995; Victor-Chmil & Foote, 2016). When faced with a possible case of child sexual abuse, medical professionals must know how to respond. They must know whether they need to refer a case for evaluation and which professionals to refer the case to. They must also know whether there is a requirement to notify the authorities, as well as how to advise parents and reduce the risk of any subsequent emotional problems that may arise (Jenny et al., 2013).

However, in spite of the implementation of training programmes in the field of child sexual abuse, a number of studies demonstrate that professionals continue to hold false beliefs on child sexual abuse (for example, psychology professionals, Pereda et al., 2012) and lack knowledge of aspects that are important and necessary for their intervention

(for example, education professionals, Márquez-Flores et al., 2016; and professionals in the field of child sexual abuse, Pelisoli et al., 2015). In addition, professionals express keen dissatisfaction with the limited training that they do receive, and underscore the need for more training in the area (for example, professionals in the field of paediatrics, Giardino et al., 1998; and childcare professionals, Rheingold et al., 2012).

2.2. Characteristics of training programmes

In terms of training recipients, the complexity of the intervention in cases of child sexual abuse requires multidisciplinary teams (Kenny & Abreu, 2015; Yamaoka et al., 2019). As a result, it is fundamental for training to be aimed at teams as a whole (Haas et al., 2011).

In terms of the subject matter that needs to be covered in training, Chen et al. (2013) asked 25 experts from a variety of disciplines about the objectives that should be pursued when planning training programmes on child abuse. The authors concluded that the training should, first of all, offer theoretical knowledge on abuse, subjective norms and attitudes toward abuse. In addition, the training should provide skills for intervention in child sexual abuse and train professionals in multidisciplinary collaboration.

Some authors have explored the theoretical content that should be included in training programmes. Figure 2.1 sets out a summary of the content.

First, it is necessary to dispel myths and beliefs about child sexual abuse that still persist in society today, even among professionals in the area (Cromer & Goldsmith, 2010).

Second, to identify abuse effectively, it is essential for professionals and members of the public to know the tell-tale symptoms of child sexual abuse. Research has grouped the wide range of symptoms into five categories: emotional problems, cognitive problems, relationship problems, functional problems and behavioural problems (Pereda, 2009).

It is also important to understand that while some victims present adverse consequences arising from the experience of sexual abuse, there is no causal link between child sexual abuse and psychological maladjustment (Rind & Tromovitch, 1997); rather, there are mediating factors such as the characteristics of the abuse, situational factors like social support, and cognitive variables relating to the victim (Cantón-Cortés & Cortés, 2015; Tremblay et al., 1999). Finkelhor & Browne (1985) have developed a conceptual model that attempts to explain the relationship between the experience of child sexual abuse and its potential consequences in light of four distinct dynamics: traumatic sexualization, betrayal, helplessness and stigmatization.

In order to help victims with the disclosure of abuse, another issue that needs to be included in training is the identification and comprehension of the barriers and obstacles that children face when narrating what has happened (Alaggia et al., 2019; Lemaigre et al., 2017). Negative reactions in the environment in response to the disclosure of sexual abuse have been shown to have a major effect on children's subsequent development of psychopathology (Dworkin et al., 2019).

In terms of responding to suspected child sexual abuse, the complexity of evaluation calls for a multidisciplinary exploration that involves healthcare professionals, such as a paediatrician and child psychologist, as well as a social worker and any other professional who may be appropriate in an individual case (Pereda & Abad, 2013).

While not all victims of child sexual abuse develop psychological problems, they do have a higher risk of psychopathology or other negative consequences associated with abuse (Maniglio, 2009). As a result, it is essential for professionals to be familiar with existing evidence-based treatments, such as trauma-focused cognitive behavioural therapy (TF-CBT), play therapy and supportive therapy, to name only a few examples (Dorsey et al., 2016; Gillies et al., 2016).

With respect to working with victims, recent studies point to the additional need of helping the nonoffending caregiver, because the support given to victims after their experience of abuse has a major influence on the consequences of abuse (Barker-Collo & Read, 2003). Interventions with nonoffending caregivers range from the provision of information and psychoeducation to support groups and individual supportive therapies (Van Toledo & Seymour, 2013).

Members of the public and all professionals who work with children have an obligation to report suspected child sexual abuse (Federación de Asociaciones para la Prevención del Maltrato Infantil [FAPMI], 2011). As a result, the public and professionals need to have a basic understanding both of the process to lodge a complaint and of the subsequent legal proceedings (Kenny & Abreu, 2015). Even more importantly, recent studies conducted with education professionals in Spain (Greco et al., 2020) indicate that possessing knowledge of the process for reporting a case of child abuse or maltreatment increases the chances that action will be taken and the case will be reported to authorities.

Lastly, the training must include information on vicarious trauma (McCann & Pearlman, 1990) or secondary traumatic stress (Figley, 1995). These terms refer to the potential psychological or emotion toll on professionals who work with victims of traumatic events (Guerra & Pereda, 2015). Understanding the issue can help in its prevention and lead to improved intervention (Trippany et al., 2004). As a result, professionals need to know the variables and factors that can have an influence on the appearance of the disorder (Trippany et al., 2003).

Figure 2.1. Content of training in child sexual abuse (Kenny & Abreu, 2015).

It should be added that research in the area has focused on determining the efficacy of training programmes, but there is little evidence about which methodologies are more effective for the acquisition of any knowledge or skills covered in the programmes.

A review of the methodology used in various training programmes indicates that, in relation to their duration, the programmes that offer continuing training prove more beneficial than those that offer one-off sessions (Kenny & Abreu, 2015). In addition, most studies concur that the most effective teaching strategy moves directly from an initial theoretical module into situations where participants can put their knowledge and skills into practice in real case scenarios, whether through the use of simulations (Victor-Chmil & Foote, 2016) or the viewing of audio-visual material (Stone et al., 1984) or participation in real interventions in residency training programmes (Palusci & McHugh, 1995; Yamaoka et al., 2019).

With respect to the training format, some programmes have recently included a portion or the entirety of their content online (Victor-Chmil & Foote, 2016; Yamaoka et al., 2019). This methodology allows more professionals to gain access to the training and has proven effective, although it does have some limitations (Paranal et al., 2012). Nevertheless, participants tend to prefer in-person training, because they say that it encourages information exchange and debate among professionals (Bond & Dogaru, 2019; Rheingold et al., 2012).

In conclusion, despite the increase in training programmes in the field of child sexual abuse in recent years, there continues to be evidence of shortcomings in the training of professionals. Training has proven to be a key element in the improvement of interventions, producing positive effects not only for victims but also for professionals themselves. In terms of the methodology that is most conducive to learning, the most effective programmes provide continuing training, which gives professionals an opportunity to put their acquired theoretical knowledge into practice.

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3. Multidisciplinary intervention

Laura Andreu

3.1. Background

The intervention of multidisciplinary teams in child abuse originated in the United States in the late 1980s (Young & Nelson-Gardell, 2018). At the time, there was an increase in resources allocated to intervention in child abuse cases, which enabled a great many institutions, agencies and organizations to implement interventions of varying kinds, but in an entirely haphazard manner. As a consequence, victims had to disclose their experience on countless occasions before a whole host of professionals, some of whom lacked specific preparation and training about children's issues or even about the most suitable protocols, techniques and tools for interviewing children (Connell, 2009).

It should be noted that the evaluation of child sexual abuse poses a challenge for any professional and cannot be undertaken single-handedly. Assessments of this sort must be carried out by a multidisciplinary team in order to cover each of the areas shown to include indicators that can assist in making an accurate evaluation, even though in many cases the indicators are non-specific and uncommon. Good coordination among clinical or social professionals, physicians and forensic psychologists who will take a case into the legal sphere is essential for an adequate approach to cases (Pereda & Abad, 2013).

For this reason, the district attorney in Huntsville (Alabama) proposed that all of these professionals should work together in child abuse cases in order to give a better, more effective response to children and to conduct better informed, more effective investigations (Cramer, 1985).

3.2. Definition of multidisciplinary teams and their members

Accordingly, multidisciplinary teams (MDTs) have been created for intervention in child abuse cases. The teams, which are made up of professionals in their different areas, seek to safeguard the best interests of the child from a joint professional perspective (Herbert & Bromfield, 2019) by improving collaboration and communication among the various institutions involved.

Each MDT must work in accordance with an agreement or arrangement that sets out the team's work approach. The agreement must cover aspects such as the frequency of team meetings, the roles of each professional on the team, the protocols to follow in crisis situations, and any other aspects that are relevant for the team's smooth operation (Herbert & Bromfield, 2019). The members of MDTs vary widely depending on the case (Cross et al., 2012), but they typically contain representatives of law enforcement, the public prosecutor's office, child protection services, the mental health field and paediatrics. Each professional plays a particular role in the MDT (see Figure 3.1). It is important to highlight the role of the forensic interviewer, which can be performed by psychologists, social workers or law enforcement officers. Whoever plays

the role, however, it must be a professional with specific training in interview techniques and evolutionary development in order to be able to gather testimony from a child in response to the requests of the MDT, while causing the least possible harm to the child (Van Eys & Beneke, 2011).

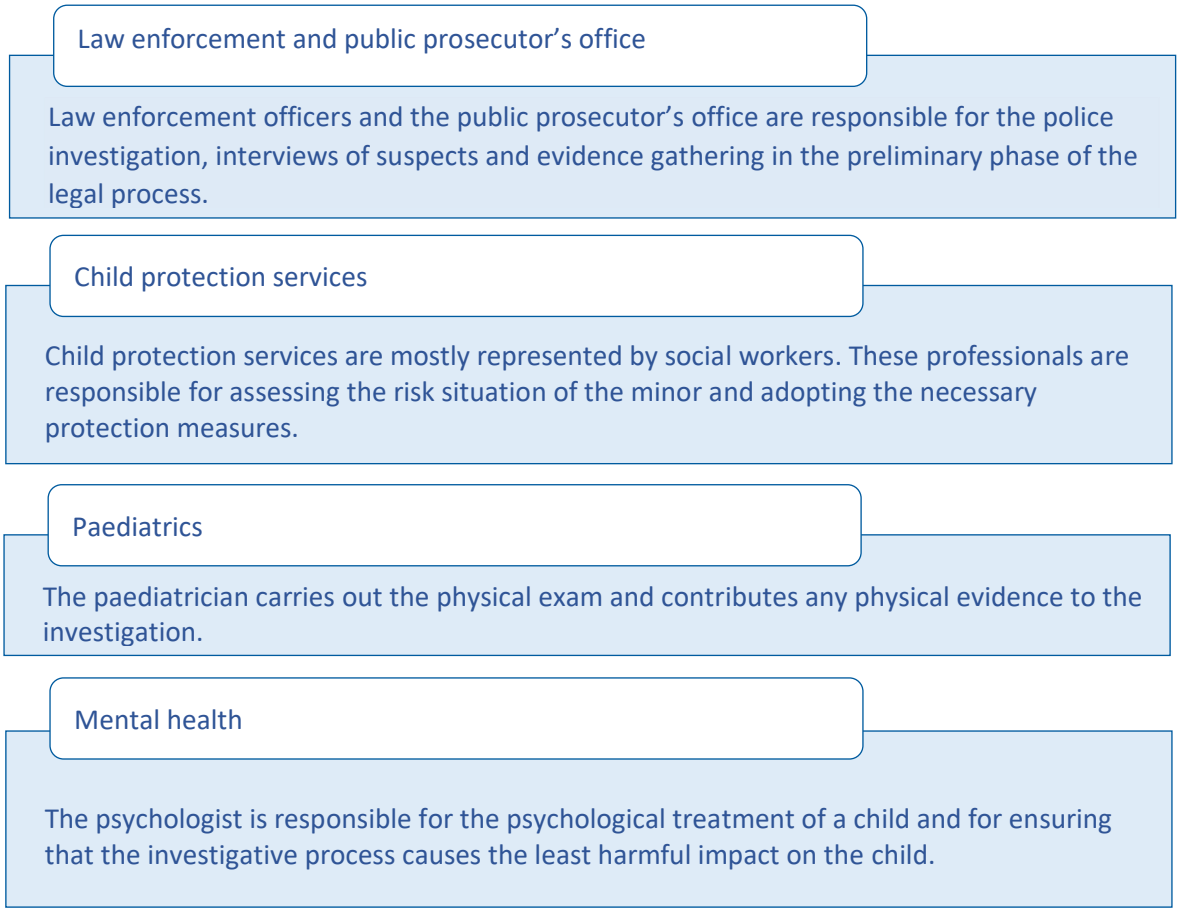


Figure 3.1. Roles of MDT members (Van Eys & Beneke, 2011).

Some authors have pointed to potential conflicts in the role of psychologists within MDTs (Connell, 2009; Melton & Kimbrough-Melton, 2006). They note that psychologists, given their training, can play a host of team roles. In particular, they highlight the incompatibility between the role of therapist and being a member of a team investigating a case. Similarly, they argue that psychologists cannot be objective with respect to investigations, given the therapeutic relationship that they form with each child (Melton & Kimbrough-Melton, 2006). While the authors in question may be right, practice guidelines such as the Psychosocial Evaluation of Suspected Abuse in Children specify that the particular roles should be played by different professionals (APSAC, 1997). That is, mental health professionals can both conduct forensic interviews and act as therapists within the same MDT, but never on the same case (Cross et al., 2012).

3.3. Effectiveness of multidisciplinary teams

The effectiveness of multidisciplinary teams in child abuse cases has been amply demonstrated (Herbert & Bromfield, 2019). Broadly speaking, it is reasonable to accept that collaboration among professionals with different areas of knowledge will lead to better decision-making and consequently have a positive impact on victims and result in better legal outcomes (Jackson, 2012).

With respect to medical examinations, studies conducted in the United States show that a medical exam is more likely to be carried out by trained professionals if the case is dealt with in a child advocacy centre (CAC) than if the traditional process is followed (Walsh et al., 2007). Who carries out the examination will also have implications on any evidence that is obtained and must be presented in court.

In relation to adapting the legal process for children, studies find that the MDT approach modulates the stress of the investigative process, which can reduce the likelihood that victims develop symptoms of trauma (Tishelman & Geffner, 2010). Also, both caregivers and children express greater satisfaction with the legal process (Herbert & Bromfield, 2019; Jones et al., 2007), particularly the coordinated response, comfort, kindness and helpfulness of staff (Bonach et al., 2010).

On the other hand, there is mixed evidence in relation to the improvement in legal outcomes. While some studies have found a clear increase in the rates of prosecution of aggressors (Miller & Rubin, 2009), a higher number of indictments (Joa & Edelson, 2004) and faster legal processes (Walsh et al., 2008), more recent studies find fewer improvements from the MDT approach in comparison to the traditional approach (Edinburgh et al., 2008). However, a review by Herbert and Bromfield (2019) shows that the latter finding is probably due to the fact that the current approach to child abuse cases is almost always multidisciplinary, even when only informally so.

In addition, a number of studies have explored the perspective of professionals who are members of multidisciplinary teams (Van Eys & Beneke, 2011; Young & Nelson-Gardell, 2018). The aspect that professionals rate highest is the exchange of information. MDT members not only need the specific competences that their colleagues bring from their respective areas of expertise, but also consider their own greatest contribution to the team to be their individual area of expertise. Similarly, it is crucial to them that the work environment is pleasant and that there is good rapport among team members. To this end, respect and trust are essential among the different professionals on the team. Young and Nelson-Gardell (2018) propose a set of guidelines (see Table 3.1) to achieve an ideal working environment, pointing out that it is necessary to know the roles and responsibilities of every team member, acknowledge one's own professional and personal limitations, and rely on the team to fill in any gaps.

Table 3.1. Guidelines for the smooth functioning of an MDT (adapted from Young & Nelson-Gardell, 2018).

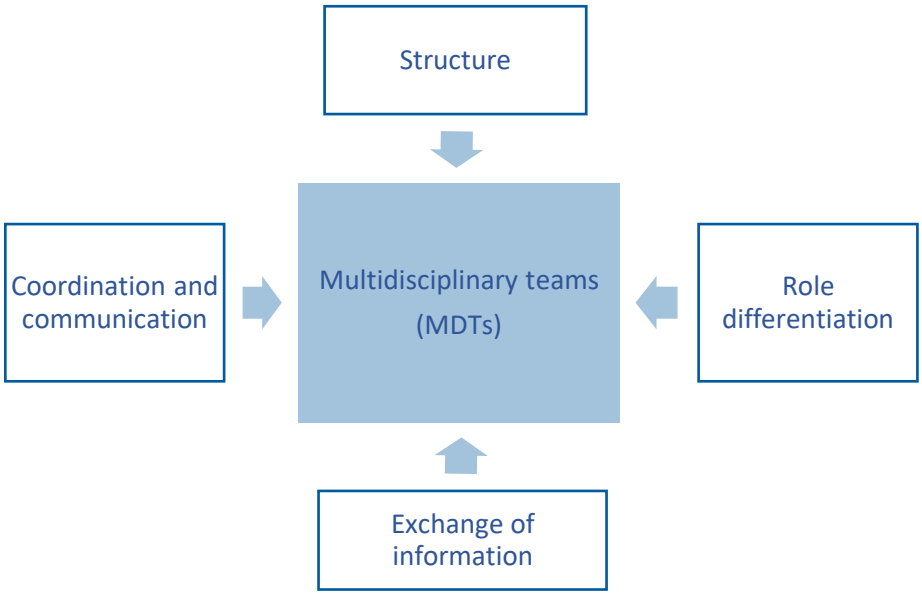
- Build productive interprofessional relationships.
- Encourage the smooth exchange of information on cases.

- Know the roles and responsibilities of other team members.
- Acknowledge the work of other team members.
- Admit to professional and personal limitations.
- Consult with other team members on specific aspects relating to their respective areas of expertise.
- Understand team members' lack of knowledge of specific aspects.

3.4. Conclusions

The intervention of multidisciplinary teams in child abuse cases has proven to be an effective way of working that results in faster legal processes that are less harmful to victims. However, multidisciplinary teams can pose difficulties that require the agreement of different professionals from distinct institutions. As a result, it is essential to give teams an appropriate structure, establish clearly differentiated roles, and foster coordination and communication among team members.

Figure 3.2. Aspects to take into consideration for an effective MDT.



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4. Forensic interview

Diego A. Díaz-Faes

4.1. Introduction

In cases of sexual abuse, alleged child victims are often the only sources of available information. As a result, a critical aspect of any forensic evaluation is knowing how best to elicit the most accurate possible testimony from them.

In recent decades, studies into childhood development and memory have increased our understanding of their characteristics, strengths and weaknesses. The research has shown that children can remember events that they have experienced. However, the relationship between memory and age is complex. A host of factors can affect not only the quality of the information provided, but also how and when a child discloses abuse. These factors include individual child characteristics, interviewer behaviour, family relationships, community influences, and cultural and societal attitudes (Newlin et al., 2015). From a forensic standpoint, the most important factors are the interviewer's ability to elicit information on one hand and the child's ability and willingness to disclose information on the other hand (Lamb et al., 2007).

Mounting evidence and improvements in professional practice have increasingly clarified the most effective ways to conduct forensic interviews with children. As a result, it is now possible to elicit useful, accurate information from children's testimony, but doing so requires proven expertise, a realistic view of their capacities, and the use of appropriate investigation and interview procedures (Poole & Lamb, 1998). In forensics, child victims of sexual abuse have often been interviewed and evaluated using inappropriate and counterproductive techniques, which can potentially modify and contaminate the content of their testimony and have a negative impact on their well-being (Lamb et al., 2011).

In addition, forensic interviews in themselves pose a challenge for children for many and varied reasons (Steele, 2012). Typically, the interview involves a conversation with a stranger in an unfamiliar setting, the subjects and aspects addressed in the interview can prove uncomfortable, distressing or even terrifying, and interviewees may not have the capacity or suitable vocabulary to describe their emotional or sensory experience. The effort to recover and verbalize their experience often evokes distressing memories and very painful internal experiences. Unsurprisingly, the forensic interviewer requires a type of interaction and conversation that differs very much from a child's everyday situations in terms of the required precision, detail and clarity. In addition, the child's disclosure in the interview is not a straightforward matter, given that even children who have previously disclosed abuse in an informal environment can be reluctant to do so in a formal setting (Prieve & Svedin, 2008).

4.2. Characteristics of a forensic interview

The forensic interview is part of a broader investigative process, which seeks to elicit information whose only source is the alleged child victim of abuse. The forensic interview is a method that is sensitive to the child's development and complies with the prevailing Spanish legislation in order to gather objective, relevant information in relation to a particular report or allegation. Accordingly, the forensic interview seeks to uncover and clarify what events have really happened, not merely collect the information that the interviewee recalls. As a result, the forensic interviewer investigates the events, objectively gathers legally pertinent details, and documents the child's disclosure. At the same time, the forensic interviewer supports the child, but also remains neutral about the authenticity of any provided information and does not establish a relationship that could interfere with the child's account in a context of hypothesis testing (Rohrabaugh et al., 2011; Saywitz & Camparo, 2009).

In this context, understanding the decisions that lead children to disclose abuse is essential for improving the design of interview and intervention strategies (Malloy et al., 2013), and for grasping both the reasons why children wait to disclose abuse and the specific associated barriers that they must overcome to do so. Ultimately, understanding these issues can help to explain in court why a child has not disclosed abuse earlier and to convey the complexity involved in the entire process (Schaeffer et al., 2011).

For these reasons, the forensic interview is key in helping to understand the experience of victimization more broadly; identify the experience of multiple victimization in different episodes, or what is known as poly-victimization (Finkelhor et al., 2007); and identify potential additional victims or witnesses who can corroborate events.

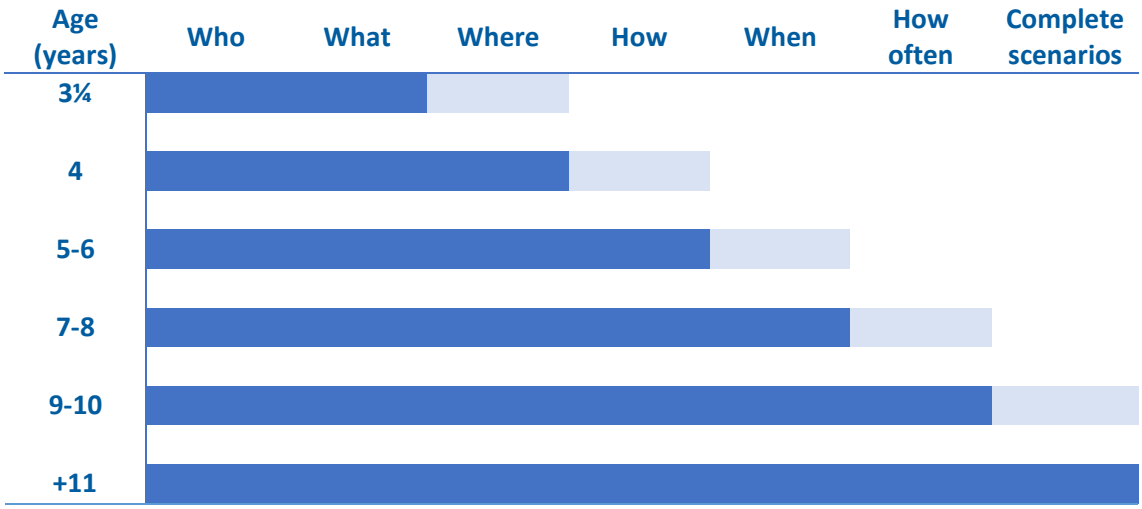
The evaluation process for child victims involves two different types of interview:

- Exploratory interview. The exploratory interview is conducted at the request of social services (the corresponding child protection agency). Only social services specialists are present. This is an initial interview in cases of suspicion or doubt to identify the existence of any element that would indicate abuse. At Barnahus Iceland, the interview is conducted by psychologists.

- Investigative interview or preconstituted evidence. The investigative interview focuses on the investigation of the case and is regarded as the actual forensic interview. It is conducted by a forensic psychologist or a law enforcement officer, it is recorded on video, and it is monitored in real time in an adjacent room by professionals who need to hear the child. The specific professionals can differ by country and by legislative framework of reference. Those who are typically present include law enforcement, the public prosecution, social services, a representative of the child, the defence attorney, workers from Barnahus, and in some cases the judge (who is present in Iceland).

In the Icelandic model, for example, the exploratory interview takes place first. Later, if there is sufficient evidence of possible sexual abuse, a forensic interview will follow. In cases with clear evidence of sexual abuse, the forensic interview will follow directly after the exploratory interview. The interviews are conducted by a psychologist from Iceland's Agency for Child Protection who is a specialist in forensic interviews.

As noted earlier, the child's memories lie at the heart of the matter. However, in cases where the described experience does not appear to be actually based on an event that the interviewee has experienced, there are two additional possibilities to consider: intentional lying and false memory (Laney & Loftus, 2015). If the depicted events really happened, the interviewer must question the interviewee's memory in relation to the recounted events. If there is deliberate lying, it is necessary to consider how the child holds two inconsistent versions of events in their memory and look for a potential origin. If false memories are involved, it is likewise necessary to consider their origin and maintenance.



Dark blue: type of questions that a child COULD answer at a given age.
Light blue: type of questions that SOME children could answer at a given age.

Figure 4.1. Forensic interview: estimation of appropriate question types by child's age.

To ensure the quality of the obtained evidence and minimize the influence of the interviewer, Barnahus quality standards set the following basic principles for the forensic interview based on best practices (Haldorsson, 2017):

1. Evidence-based practices and protocols
   - √ Forensic interviews are carried out according to evidence-based practices and protocols, which ensure the quality and quantity of the obtained evidence.
   - √ The main aim of the interview is to avoid retraumatization and to elicit the child's free narrative in as much detail as possible while complying with the rules of evidence and the rights of the defence.

2. Specialized staff

- √ Forensic interviews are carried out by specialized staff members who receive regular (initial and continuing) training in conducting forensic interviewing.

3. Location and recording
   - √ Interviews are recorded audio-visually in order to avoid repeated interviewing by different professionals who require access to the child's disclosure.

4. Multidisciplinary and interagency presence
   - √ The forensic interview is carried out by a single professional.
   - √ All relevant members of the multidisciplinary, interagency team are able to observe the forensic interview, either live in an adjacent room, or recorded.
   - √ There is a system of interaction between the interviewer and the observers so that questions can be posed to the child via the interviewer.

5. Respecting the defendant's right to a fair trial and "equality of arms"
   - √ Arrangements are put in place to allow the defence to pose questions to the child victim/witness via a forensic interviewer.
   - √ Should the accused person have the legal right to observe the child's testimony, this is done by audio-visual transmission to avoid potential contact between the accused and the child.

6. Adapted to the child
   - √ The interview is adapted to the child's age, development and cultural background and takes into account any special needs including interpretation. This may include minimizing the length of interviews, allowing breaks, and potentially conducting the interview over more than one session.
   - √ The number of interviews is limited to the minimum necessary for the criminal investigation.
   - √ The same professional conducts the interview if multiple interviews are necessary.

4.3. Forensic interview protocols

The evidence produced through cognitive, social and developmental research has given rise to a variety of protocols that help forensic evaluators to conduct interviews that are appropriate to each child's characteristics and development level. Clinical and forensic evidence has helped to identify the best practices that facilitate the disclosure of sensitive information while reducing the number of interactions, minimizing the impact on children, and offering guidelines, recommendations and, more broadly, a set of best practices to govern forensic practice. As with the general practice of forensic interviews, protocols are constantly evolving in line with advances in research and professional practice, increasingly incorporating additional expertise and ensuring respect for the rights of children (Melinder et al., 2020).

In this respect, the evidence arising from meta-analysis studies (Lavoie et al., 2021) shows that positive rapport, the affective bond created between the interviewer and

the interviewee, has a significant effect on children's disclosure of sensitive information, and that the interview protocol used by the interviewer can moderate the effect size of any findings. The type of questions is another key aspect. Generally, open-ended questions are more effective for eliciting complete responses about sensitive events, while neither suggesting nor distorting the interviewee's response, although they do not always succeed in facilitating disclosure because, to some extent, they can permit evasive answers (Lindholm & Cederborg, 2015). In any case, the majority of alleged victims disclose abuse when interviewed, although more than one-third fail to do so and there is a greater risk of non-disclosure of valid abuse allegations among younger children, male victims and any child who has not made a previous disclosure (Azzopardi et al., 2019).

In addition, research has begun to identify subgroups and factors that benefit most from additional support (Saywitz et al., 2019): (a) child factors associated with anxiety; (b) reluctance or lack of interest in collaboration; (c) a history of insecure attachment; (d) poor working memory; (e) acute sensitivity to environmental stressors; and (f) recounting emotional events long after they have occurred.

In sum, interview protocols are essential because they guide, direct and define general and specific guidelines for the forensic interview of alleged victims of child sexual abuse at an operational level, while also complying with legal requirements, increasing interviewer competence, building the confidence of the interviewer and interviewee, and fostering consistency. At the same time, they are flexible enough to be adapted for use in different cases and scenarios, and increase the amount and quality of obtained information, while also avoiding any subjective interference from the interviewer or contamination of the interviewee's account.

Currently, there are several forensic interview protocols for alleged child victims of sexual abuse. All of the protocols contain a set of broadly similar steps, but they differ fundamentally in their implementation. The interview models vary by type (Faller, 2015): scripted (for example, the Ten Step Investigative Interview of the National Institute of Child Health and Human Development, or NICHD), semi-structured (e.g. RATAC, Poole and Lamb's Investigative Interview, ChildFirst), and flexible (e.g. Faller's Child-Focused Flexible Interview from the National Children's Advocacy Center Forensic Interview Protocol, or NCAC). In general, however, they all contain an initial stage of building positive rapport, introducing guidelines and giving a narrative description of an everyday event. To understand the distinctive characteristics of the protocols, below is an exploration of the two main protocols that are most widely in use: the NICHD and NCAC protocols.

4.3.1. The NICHD protocol

The NICHD protocol was developed by the Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD) in the United States.

In terms of results, most studies have found that children provide the same interviewers with details that are significantly more relevant from a forensic perspective after the interviewers have received specific training in the application of the NICHD protocol

(Brown et al., 2013). The NICHD protocol includes a scripted version for less experienced interviewers and a semi-structured version for more experienced interviewers (Faller, 2015).

The NICHD protocol is presented as a guide for the investigative interview or pre-constituted evidence. It has a total of 11 steps, which appear below in Figure 4.2.

I. INTRODUCTION
II. RAPPORT BUILDING
III. TRAINING IN EPISODIC MEMORY
Special event; yesterday; today.

---Substantive part of the interview---

IV. TRANSITION TO SUBSTANTIVE ISSUES
After exploring the main issue but before moving onto the next step: pause or break.
V. INVESTIGATING THE INCIDENTS
Open-ended questions: focused questions relating to the information mentioned by the child; separation of incidents; exploring specific incidents when there were several; focused questions relating to the information mentioned by the child; general format of direct questions.

VI. BREAK
VII. ELICITING INFORMATION THAT HAS *NOT* BEEN MENTIONED BY THE CHILD
VIII. IF CHILD FAILS TO MENTION INFORMATION THAT YOU EXPECTED
IX. INFORMATION ABOUT THE DISCLOSURE
X. CLOSING
XI. NEUTRAL TOPIC

Figure 4.2. Steps of the NICHD protocol.

In addition, the NICHD protocol includes a ten-step set of instructions that help to develop and guide the investigative interview or pre-constituted evidence:

1. **Instruction for "I don't know"**
If I ask a question and you don't know the answer, just say, "I don't know".
So if I ask you, "What is my dog's name?", what would you say?
Right, you don't know, do you?
But if I ask you, "Have you got a dog?"
Right, because you do know.

2. **Instruction for "I don't understand"**
   If I ask a question and you don't understand me or you don't know what I'm talking about, just say, "I don't understand". And I will ask the question in a different way.
   So if I ask you, "What is your gender?", what would you say?
   Right, because "gender" is a hard word.
   So I would ask you, "Are you a boy or a girl?"

3. **Instruction for "you are wrong"**
   I sometimes make a mistake or say something that is not right.
   When I do that, you can tell me that I'm wrong.
   So if I say, "You are thirty years old", what would you say?
   Right, so how old are you?

4. **Instruction about investigator's ignorance**
   I don't know what has happened to you.
   I can't give you the answers to my questions.

5. **Promising to tell the truth**
   It is very important for you to tell me the truth.
   Do you promise that you are going to tell me the truth?
   Are you going to tell me any lies?

6. **Practice narratives**
   a. Things that I like to do/don't like to do
   First, tell me about things that you like to do.
   Follow with questions like "Tell me more about …".
   Example: "You say that you like to play football. Tell me more about playing football."
   Now tell me about things that you don't like to do.
   Follow with questions like "Tell me more about …".

   b. Last birthday
   Now tell me about your last birthday. Tell me everything that happened.
   Follow with questions like "What happened next?"
   Example: "You said that you played [example]. What did you do next?"

7. **Allegation**
   (If the child discloses abuse, go directly to the instructions for Follow-up of allegation. Decide beforehand what questions you will ask about the allegation.)
   a. Tell me what you've come to speak with me about.
   Okay, tell me why you have come to speak with me.
   It's very important for me to know why you came to speak with me.

b. I've heard that you talked to …
Example: "*I've heard that you talked to a police officer last week. Tell me what you talked about.*"

c. Somebody is worried
Example: "Is your mom worried that something may have happened to you? Tell me why she is worried."

d. Somebody has been bothering you
Example: "I've heard that somebody might have been bothering you. Tell me all about it."

e. Something wasn't right
Example: "I've heard that somebody might have done something to you that wasn't right. Tell me all about it."

8. **Follow-up of allegation**
   You said [repeat the allegation]. Tell me everything that happened.
   Example: "You said that Uncle Bill hurt your pee-pee. Tell me everything that happened."

9. **Follow with questions like "And then what happened?" and "Tell me more"**
   Avoid yes-no questions and forced-choice questions.

10. **Multiple incidents**
    Did [repeat the allegation] happen one time or more than one time?
    Tell me everything that happened about a time that you remember well …
    Tell me everything that happened the first time …
    Tell me everything that happened the last time …
    Did it happen any other time?

Figure 4.3. Instructions for the NICHD protocol.

4.3.2. The NCAC protocol

As with the NICHD protocol, the US National Children's Advocacy Center (NCAC) has a semi-structured forensic interview template that can be adapted for children of different ages and cultural backgrounds. The NCAC protocol is divided into two overarching stages and includes a set of guidelines and a flexible structure.

STAGE 1: RAPPORT

- ***Introductions***
  - Introduce self/role
  - Age-appropriate explanation of process

- Answer questions/address concerns

❖ ***Early engagement***

- Allow the child to become comfortable
- Engage the child in conversation regarding topics that are interesting to the child
- Learn about the child's interests/day-to-day life

❖ ***Interview instructions***

- Explain instructions/ground rules/expectations:
  - Correct me
  - Don't know/don't guess
  - Don't understand
  - True/real

❖ ***Narrative practice (episodic memory training)***

- Select topic(s) of interest:
  - In-depth discussion of 1 or 2 separate non-abusive events
- Invite child to "tell me about …":
  - Set baseline by modelling episodic narrative
  - Teach child about need for forensic details
  - Listen without interruption
  - Follow with responses that encourage further narrative

❖ ***Family***

- "Tell me everyone who lives with you"
- May be documented through listing names or drawing (if developmentally appropriate)

STAGE 2: SUBSTANTIVE PHASE

❖ **Transition**

- Question(s) which invite child to discuss substantive issues
- Start broad and become progressively more focused ("funnel" approach):
  - "How come you're here today?"
  - "What did your mom/dad tell you about coming here today?"
  - "Has something happened that we need to talk about?"
- More direct prompts may be used if needed

❖ ***Narrative description***

- Elicit narrative using recall prompts
- Ask for explanation or further description
- Avoid rush to specific questions

❖ ***Follow-up questions***

- Questions eliciting further details
- Keep questions as open as possible
- Cautious use of prompts that tap recognition memory

❖ ***Clarification***

- Questions seeking clarification of previous terms or statements
- Consider linguistic style and developmental ability
- Tools or other techniques may be helpful for some children

- ***Closure***
  - Return to everyday conversation or neutral topic discovered in rapport
  - Answer questions or concerns
  - Thank child for participation, time and effort (not content)

4.4. Conclusions

To ensure the quality of the obtained evidence and minimize the influence of the interviewer, Barnahus quality standards establish a number of basic principles for the forensic interview based on best practices (Haldorsson, 2017), including:

- Forensic interviews are only carried out by specialist team members.
- Evidence-based practices and protocols are used for all forensic interviews and exploratory interviews.
- Forensic interviews are adapted to the child's characteristics and specific background in terms of age, development, cultural background and any potential special needs.

Forensic interviews bring into play the training of interviewers and the application of interview protocols, which lay out a set of guidelines backed by empirical evidence and forensic and community practice. The guidelines help to increase the amount and quality of elicited information while reducing any interviewer interference and potential harm from the interview process. When the interviewer conducts the interview, the building of positive rapport and the use of open-ended questions are core elements that facilitate the entire process, enabling the interviewer to elicit sensitive interview and helping the child to disclose any experience of abuse.

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5. Forensic medical evaluation

Noemí Pereda & Violeta Vallejo

In 1978, the paediatrician C. Henry Kemp became the first person in the medical community to identify that child sexual abuse was a health problem that required professional intervention. By the early 1980s, physicians had begun to perform the first medical evaluations of potential child victims of sexual abuse. Today, several published guides and protocols lay out the steps that every medical professional needs to know and follow (for example, Adams et al., 2007).

According to the American Academy of Pediatrics (Jenny et al., 2013), the evaluation of a suspected case of sexual abuse must always include: (a) an analysis of the clinical history, including physical, emotional and social information about the child and their development; (b) the completion of a physical exam, primarily in the anogenital area; and (c) an assessment of obtaining specimens for laboratory testing. If the sexual conduct is suspected to have taken place less than 72 hours before the exam, it will also be necessary to collect any forensic evidence that may be present in the child's body, clothing or other materials (Committee on Child Abuse & Neglect, 1999). The integration of findings is what will permit a diagnostic approximation, but an evaluation of child sexual abuse will always require an interdisciplinary report (Pereda & Abad, 2013).

That said, experts in the area advise medical professionals and other members of interdisciplinary teams that medical findings are rarely the most important part of the examination of a possible child victim of sexual abuse (Adams, 1994; Adams, 2011).

A good guide on the interpretation of medical and lab findings has been published by Adams et al. (2016), whose latest updated version corresponds to Adams et al. (2018). In these guides, the expert and her collaborators once again point to the limitations of a physical exam and reiterate that the most important part of the exam is the clinical history, given that the medical findings in most cases will be inconclusive or indiscernible. In the words of Alexander (2011), the most important organ to assess in a physical exam for child sexual abuse is the brain, not the genitals. Other authors have noted that it is crucial to conduct a good interview with the child before the physical exam. They contend that in many cases the disclosure of penetration will be a function of the questions posed to the child and the child's capacity to understand them, which in turn can have an influence on the physical exam that is carried out (Gallion et al., 2016). In relation to the disclosure of penetration, the same author posits that a girl may understand penetration as penetration of the labia (which would correspond to genital penetration without vaginal penetration), making it even less likely to find evidence of injury.

Additionally, after the physical exam, the healthcare professional must offer feedback on the procedures carried out, arrange a course of medical follow-up, and give assurances about the physical state of the child to the child and the family (Kellogg & the Committee on Child Abuse and Neglect, 2005).

5.1. Physical exam

The physical exam, especially the genital exam, can produce stress in children and their family members. However, most child victims of sexual abuse do not present a high level of anxiety in response to anogenital physical examination (Hornor et al., 2009), especially if they are told what is going to happen and informed of the procedures in accordance with their age and ability to understand (Kellogg et al., 2005; Jenny et al., 2013). This is also the case if they are made to feel involved in the exam and empowered to take decisions, such as stopping the exam if it produces too much discomfort (Lawson, 1990). Accordingly, the physical exam can have a calming, therapeutic effect in some cases (Giardino et al., 2005) and the results need to be explained. In a prospective study involving victims of child sexual abuse and their parents, the children were found to have a much lower level of anxiety regarding the physical exam than their parents experienced or than their parents anticipated that their child was going to experience (Marks et al., 2009). There is also a tool to evaluate the level of distress that may be caused by the physical exam. Known as the Genital Examination Distress Scale, the tool can be used if there is a desire to obtain an objective measure of the potential harm caused to the child during the exam (Gully et al., 1999).

In order to make the physical exam as stress-free as possible, it is also important to do it in pleasant surroundings and allow the child or adolescent to have their mother or father nearby if they wish or, conversely, respect their wishes if they do not want a parent nearby (Newton et al., 2010).

In order to make the physical exam easier, research has recently begun to address the importance of the medical clown in invasive exams of children. According to studies, the medical clown helps children to conceptualize the reality of the exam from a more positive perspective, strengthens the therapeutic alliance between the child and the medical team, and restores a certain sense of empowerment to the child (Ofir et al., 2016). Specifically in the evaluation of child sexual abuse, the medical clown has been observed to reduce any anxiety or fear that children may have, lower their level of pain, and diminish intrusive thoughts, as well as creating a calming, soothing environment that increases children's cooperation during the exam (Tener et al., 2010; 2012).

In the context of suspected child sexual abuse, the aims of the physical exam are: (a) to identify any medical evidence that may contribute information for the legal process; (b) to evaluate any injuries or other medical conditions that may require treatment; and (c) to confirm to the victim and their parents or primary caregivers that the child is in good physical condition (Walsh et al., 2007).

The anogenital exam must always be conducted as part of a general physical exam, because child victims of sexual abuse can also be victims of other forms of violence that require assessment (Kellogg et al., 2005). The physical exam must confirm or rule out the existence of wounds and/or injuries, especially if the child reports genital or anal pain or bleeding. If the child reports dysuria, or difficulty/pain when urinating, it is also necessary to carry out a urinalysis.

In many cases, an examination of the genitals and anus will not require instruments, only a manual exam (Newton et al., 2010; Jenny et al., 2013). The use of a speculum is contraindicated in prepubertal girls; however, if intravaginal trauma is suspected, it will be necessary to perform a vaginoscopy with the girl sedated under anaesthesia (Adams et al., 2018; Jenny et al., 2013), whether she is prepubertal or postpubertal. In the case of adolescents, it may be necessary to use a vaginal speculum, especially if penetration is suspected, although it must be taken into account that the instrument can cause pain and many adolescents cannot tolerate it (Newton et al., 2010). In the case of males, the genital exam involves a visual inspection of the penis and scrotum, noting down the existence of any injuries, marks and scars, or other abnormality. Typically, the anal exam is also external and it is not necessary to perform an anoscopy or digital rectal exam (Adams et al., 2018; Jenny et al., 2013).

The medical findings used in the evaluation of child sexual abuse can vary widely, ranging from normal variants to signs suggestive of sexual abuse, by way of other identified pathologies that can require treatment and/or subsequent follow-up. Figure 5.1 sets out a classification of the findings according to their weight in relation to sexual abuse (Adams et al., 2016).

PHYSICAL FINDINGS

Findings unrelated to the disclosure of child sexual abuse. Normal variants.

- In relation to the appearance of the hymen
    - Annular: hymenal tissue present all around the vaginal opening including at the 12 o'clock location
    - Crescentic hymen: hymenal tissue is absent at some point above nine and three o'clock
    - Imperforate hymen
    - Microperforate hymen
    - Septate hymen
    - Redundant hymen: hymen with multiple flaps, folding over each other
    - Hymen with tag of tissue on the rim
    - Hymen with mounds or bumps on the rim at any location
    - Hymen with any notch or cleft (regardless of depth) located above nine and three o'clock
    - Notch or cleft in the hymen, located at or below nine or three o'clock, that does not extend to the base of the hymen
    - Smooth posterior rim of the hymen that appears to be relatively narrow along the entire rim; might give the appearance of an enlarged vaginal opening
- Periurethral or vestibular bands
- Intravaginal ridges or columns
- External ridge on the hymen
- Diastasis ani (smooth area)
- Perianal skin tags
- Hyperpigmentation of the skin of labia minora or perianal tissues in children of colour
- Dilation of the urethral opening
- Normal midline anatomic features
    - Groove in the fossa, seen in early adolescence
    - Failure of midline fusion (also called perineal groove)
    - Median raphe (has been mistaken for a scar)
    - Linea vestibularis (midline avascular area)
- Visualization of the pectinate/dentate line at the juncture of the anoderm and rectal mucosa, seen when the anus is fully dilated

- Partial dilatation of the external anal sphincter, with the internal sphincter closed, causing visualization of some of the anal mucosa beyond the pectinate line, which might be mistaken for anal laceration

Findings commonly caused by medical conditions other than trauma or sexual abuse. They require a differential diagnosis, because each might have several different causes.

- Erythema of the anal or genital tissues
- Increased vascularity of vestibule and hymen
- Labial adhesion
- Friability of the posterior fourchette
- Vaginal discharge that is not associated with a sexually transmitted infection
- Anal fissures
- Venous congestion in the perianal area
- Anal dilatation in children with predisposing conditions (such as current symptoms or history of constipation or encopresis) or children who are sedated, under anaesthesia, or with impaired neuromuscular tone

Findings due to other conditions, which can be mistaken for sexual abuse.

- Urethral prolapse
- Lichen sclerosus et atrophicus
- Vulvar ulcer(s), such as aphthous ulcers or those seen in Behcet disease
- Erythema, inflammation and fissuring of the perianal or vulvar tissues due to infection with bacteria, fungus, viruses, parasites or other infections that are not sexually transmitted
- Rectal prolapse
- Red/purple discolouration of the genital structures (including the hymen) from lividity postmortem, if confirmed by histological analysis

Findings that have been associated with child sexual abuse in some studies, but there is currently no expert consensus regarding the degree of significance in relation to sexual abuse.

- Complete anal dilatation with relaxation of the internal and external anal sphincters, in the absence of other predisposing factors
- Notch or cleft in the hymen rim, at or below the nine or three o'clock location, which extends nearly to the base of the hymen, but is not a complete transection
- Complete cleft or suspected transection to the base of the hymen at the nine or three o'clock location

The latter two findings should be confirmed using additional examination positions and/or techniques to ensure that they are not normal variants or a finding of residual traumatic injury.

Findings caused by trauma. These findings are highly suggestive of sexual abuse unless there is a clear injury mechanism or past surgical interventions that are confirmed from a review of medical records. These findings might represent residual or healing injuries that should be confirmed using additional examination positions and/or techniques.

- Acute trauma to genital or anal tissues
  - Acute laceration or bruising of labia, penis, scrotum or perineum
  - Acute laceration of the posterior fourchette or vestibule, not involving the hymen
  - Bruising, petechiae or abrasions on the hymen
  - Acute laceration of the hymen, of any depth; partial or complete
  - Vaginal laceration
  - Perianal laceration with exposure of tissues below the dermis
- Residual (healing) injuries to genital or anal tissues
  - Perianal scar (a very rare finding that is difficult to diagnose unless an acute injury was previously documented at the same location)
  - Scar of posterior fourchette or fossa (a very rare finding that is difficult to diagnose unless an acute injury was previously documented at the same location)
  - Healed hymenal transection/complete hymen cleft
  - Signs of female genital mutilation

INFECTIONS

Infections not related to sexual contact

- Vaginitis caused by fungal infections, such as *Candida albicans*, or bacterial infections transmitted by nonsexual means (*Streptococcus* type A or type B, *Staphylococcus sp*., *E. coli*, *Shigella* or other gram-negative organisms - Genital ulcers caused by viral infections such as Epstein-Barr virus or other respiratory viruses
Infections that can be spread by sexual or nonsexual transmission. In some cases, they must be notified to child protection services.
- *Molluscum contagiosum* in the genital or anal area. Transmission from intimate contact has been described in the adolescent population - Condyloma acuminatum (HPV) in the genital or anal area. Warts appearing for the first time after five years of age might be more likely to have been transmitted by sexual contact - HSV type 1 or 2 infections in the oral, genital or anal area
Infections caused by sexual contact, if confirmed using appropriate testing and perinatal transmission has been ruled out.
- Genital, rectal or pharyngeal infection by *N. gonorrhoeae* - Syphilis - Genital or rectal infection by *C. trachomatis* - Infection by *Trichomonas vaginalis* - HIV, if transmission by blood or contaminated needles has been ruled out
FINDINGS DIAGNOSTIC OF SEXUAL CONTACT
- Pregnancy - Semen identified in forensic specimens taken directly from a child's body

Figure 5.1. Classification of medical findings in the assessment of child sexual abuse (Adams et al., 2018).

It must always be remembered that a normal result in a physical exam of the genital and anal area neither confirms nor rules out the possibility of sexual abuse. Many child victims of sexual abuse will have normal or non-specific results. Many of the sexual behaviours performed during sexual abuse leave no physical evidence, and any injuries to the mucosa will heal rapidly and completely (Kellogg & the Committee on Child Abuse and Neglect, 2005).

Thus, in one study on the issue, over 90% of girls between the ages of three and eight who said that they were victims of vaginal penetration by a penis or finger did not have any signs of genital injury (Berenson et al., 2000).

A prospective study that evaluated 2,384 boys and girls who were victims of sexual abuse showed that only 4% presented abnormal results in the physical exam. In cases of severe sexual abuse including anal or vaginal penetration, the figure rose to 5.5%. This supports the notion that the account elicited from a child during the interview is the most important evidence to consider (Heger et al., 2002).

Another study, which was undertaken by Gallion et al. (2016) to determine the prevalence of genital injuries in child sexual abuse, evaluated 1,500 girls under 18 years of age who were suspected victims of sexual abuse. The study showed that when the physical exam took place promptly (within 72 hours after the sexual abuse), injuries were found in 21.4% of the girls (in 73 out of 340 cases). By contrast, when the physical exam took place later than 72 hours after the sexual abuse, injuries were found in only 2.2% of the girls (in 26 out of 1,160 cases).

Even studies that have been carried out on samples of children and adolescents who were suspected victims of sexual abuse and received urgent attention (in the first 72 hours after the sexual abuse) indicate that the physical findings in most cases are normal or non-specific (Palusci et al., 2006). Even more strikingly, a study involving pregnant adolescents found that only 5.5% (2 out of 36 cases) had the defining features of penetration based on the genital examination (Kellogg et al., 2004). Another study conducted by Adams et al. (2004) indicates that 52% of adolescents who mention sexual activity with vaginal penetration do not have physical signs suggestive of penetration.

While finding physical evidence of sexual abuse is unlikely, however, it must be borne in mind that finding such evidence is very significant in the subsequent legal implications of a case. A study by Palusci et al. (1999) looked at a sample of 497 boys and girls who were suspected victims of sexual abuse, and found that cases that had physical evidence were 2.5 times more likely to result in a guilty verdict for the aggressor.

The importance of documenting the physical exam using photographs or video recordings is another aspect to take into account. Video recording has the advantage of allowing the physical exam to be documented dynamically and it is currently the preferred method (Adams et al., 2018). While some clinicians still prefer photographs when they request a second opinion on abnormal genital or anal findings, the use of video is recommended whenever possible. When the option of video recording is not available, the recommendation is to collect many images from a variety of perspectives using a variety of methods. In order to take photographs, a camera can be attached to the colposcope so that a medical professional does not need to attach a camera in front of the child and can therefore protect the child from reliving situations of abuse, especially in cases of child pornography (Giardino & Finkel, 2005).

5.2. Laboratory tests

Given that sexually transmitted infections (STIs) are not common among suspected prepubertal child victims of sexual abuse, it is not recommended to grow cultures from the various areas (mouth, genitals, anus) for all microorganisms if the child is asymptomatic and does not report sexual contact in those areas. The presence of STIs, which is rare, affects only 1% to 4% of children, even though it is sometimes the only medical evidence of sexual abuse (Herrmann et al., 2014). Nonetheless, some studies (Kellogg et al., 2018) have identified STIs in asymptomatic patients examined for suspected sexual abuse. *C. trachomatis* and *N. gonorrhoeae* have been found in body areas (genital, anal or oral) in which children have not disclosed any contact with their aggressor, raising the possibility of a spreading infection, sexual contact, the presence of the aggressor's secretions, autoinoculation or the child's lack of disclosure.

According to the guidelines of the American Academy of Pediatrics (Jenny et al., 2013), it is recommended to grow cultures for possible STI in children in the circumstances noted in Figure 5.2. In the case of adolescents, examinations for possible STI are required.

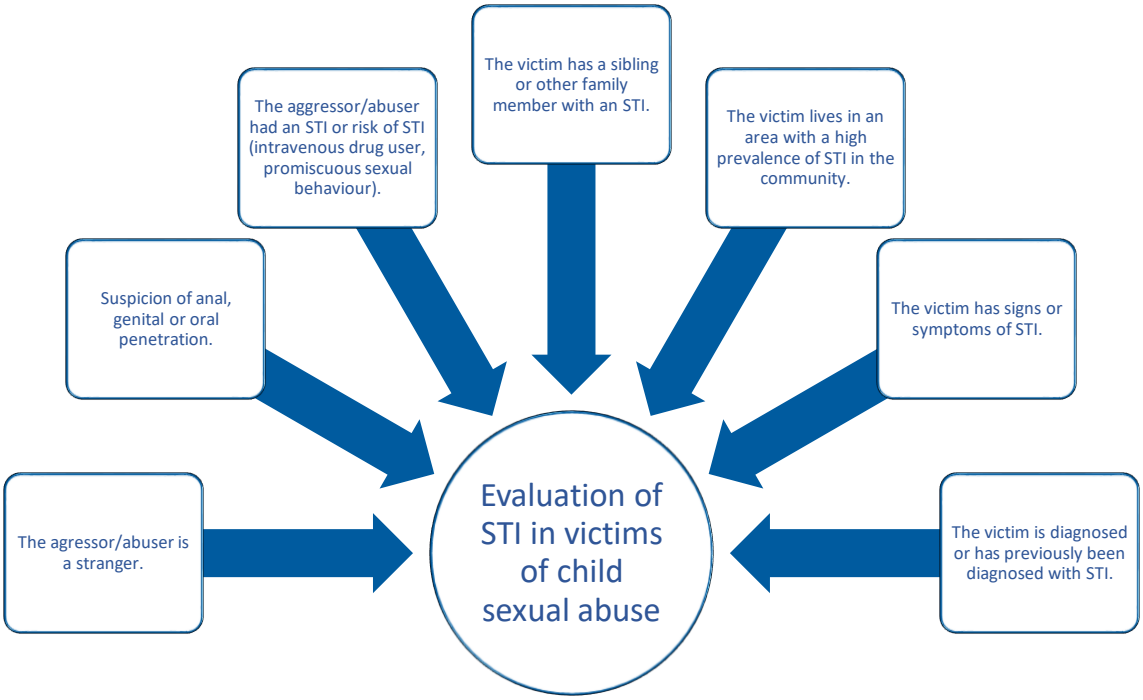

Figure 5.2. Variables to take into consideration in the possible evaluation of STI in a child victim of sexual abuse.

When specimen collection is indicated in order to diagnose or rule out STI, it is necessary to obtain a blood sample to assess the serologies of HIV, HBV, HCV, *T. pallidum* and *C. trachomatis* infections. Also, for the latter infection and for *N. gonorrhoeae*, it is necessary to conduct direct microbiological studies and bear in mind that recommendations have been changing in recent years in light of scientific advances. While diagnosis from cultures is preferred from a forensic viewpoint, there are several studies finding that detection of these pathogens through PCR tests on vaginal swabs and on urine is superior than it is through growing cultures from vaginal swabs (Adams et al., 2018; Jenny et al., 2013; Kellogg et al., 2018).

With respect to STIs, *N. gonorrhoeae* infections in the vaginal and anal areas are rarely acquired perinatally and, with the exception of the newborn period, are considered to be caused in all likelihood by sexual abuse (Whaitiri & Kelly, 2011). This is also the case with *Chlamydia trachomatis* in children over three years of age (Bell et al., 1992). *Trichomonas vaginalis* infection should also be interpreted as a sign of possible abuse (Hammerschlag et al., 1978). Similarly, HIV infection in children who have not been exposed to the virus perinatally, through blood or through hypodermic needs is very likely to be the result of sexual abuse (Lindegren et al., 1998). In the face of infection by any of these pathogens, it is necessary to make an assessment of suspected sexual abuse. According to Jenny & the Committee on Child Abuse and Neglect of the American Academy of Pediatrics (2013), however, sexual abuse is seldom diagnosed on the basis of a sexually transmitted infection in the absence of other compatible findings.

For their part, herpes simplex virus and genital warts or condylomata acuminata, which are caused by human papillomavirus (HPV) infection, can be sexually transmitted to children, but they do not amount to diagnostic proof on their own (Hammerschlag & Guillén, 2010).

Lastly, pregnancy and semen identified in the anogenital area or mouth are confirmatory of sexual contact (Adams et al., 2018). In the absence of consensual sexual relations, therefore, they are diagnostic of child sexual abuse.

5.3. The risk of STI and pregnancy

In the case of sexual abuse with penetration or mucosal contact, there is a risk of sexually transmitted infection. In addition to carrying out lab tests, it will be necessary to assess whether to start treatment for *N. gonorrhoeae*, *C. trachomatis* and *T. vaginalis* while awaiting test results. If less than 72 hours have elapsed since contact, it is indicated to initiate prophylactic treatment for HIV and assess whether to administer (anti-HBV) hyperimmune gammaglobulin and/or HBV vaccine and arrange follow-up by an infectious disease specialist in HIV in the week that follows. Subsequently, it will be necessary to carry out clinical and analytical follow-up of any infections involving HIV, HBV, HCV, *T. pallidum* and *C. trachomatis* until the window for their diagnosis has closed (Centers for Disease Control and Prevention, 2015; Crawford-Jakubiak et al., 2017), and also to ensure completion of full vaccination for HBV and HPV (human papillomavirus).

In the case of sexual abuse with penetration or genital contact with ejaculate, it is also indicated to prescribe emergency contraception up to 120 hours after sexual contact. First, it is necessary to rule out the existence of a pre-existing pregnancy, so a baseline pregnancy test needs to be carried out. At two or three weeks after sexual contact, a second pregnancy test can be done to definitively rule out pregnancy, regardless of whether the girl or adolescent has taken emergency contraception or menstruation has occurred (Crawford-Jakubiak et al., 2017). It is also possible to do a pregnancy test if an adolescent has any doubts or concerns about pregnancy.

5.4. Education and training

Education and training are fundamental for the proper medical evaluation of child sexual abuse. Studies indicate that the performance of a greater number of physical exams improves interpretation of the physical findings and that professionals with more experience and expertise make decisions that are more consistent and better in quality.

According to Adams et al. (2012), it is necessary to conduct at least five exams a month to have sufficient competence in interpreting medical tests and lab results in cases of child sexual abuse. For their part, authors like Alexander (2011) note that healthcare professionals, before they can be adequately trained in the area, must ‘unlearn’ all the myths and false beliefs that exist about the medical evaluation of child sexual abuse with respect to the presence or absence of signs and injuries that can be found in physical exams.

Several studies have surveyed medical professionals about their knowledge of the physical indicators and signs of child sexual abuse, and they have shown the difficulties involved in correctly identifying and naming basic genital structures in photographs of prepubertal boys and girls (Hornor & McCleery, 2000; Ladson et al., 1987; Lentsch & Johnson, 2000). Logically, it follows that if these professionals cannot correctly identify normal structures, they will have even greater difficulty in identifying whether the structures are abnormal or present injuries.

A study conducted with paediatric specialists has shown that a sizeable group of them hold the view that their training in child sexual abuse is insufficient for clinical practice and that approximately 30% of them cannot adequately identify basic female genital structures in photographs (Dubow et al., 2005). Similar results have been obtained with paediatric specialists regarding their knowledge of male genitals (Donaruma-Kwoh et al., 2010).

At the same time, many professionals fear retraumatizing children during physical exams. As noted earlier, however, studies indicate that the medical exam, when carried out in accordance with published guides, is therapeutic and not retraumatizing (Giardino & Finkel, 2005). The medical exam can restore a child's image of his or her body and shift the child from a pathological state to a state of normality and integration (Herrmann et al., 2014).

5.5. Conclusions

In conclusion, more than three decades since Kempe (1978) described child sexual abuse as a hidden paediatric problem, such abuse remains difficult for medical professionals to diagnose. The examination that will lead to a diagnosis can only be interdisciplinary, and any medical tests and exams will rarely be decisive in confirming or refuting a diagnosis.

However, many professionals in charge of these examinations still know too little (PROMISE, 2020). Specifically, the factors that make the diagnosis of child sexual abuse far from a straightforward task are those set out in Figure 5.3. They can only be overcome with good education and continuing training, which will enable healthcare professionals to understand the procedure they should follow and also be aware of its limitations.

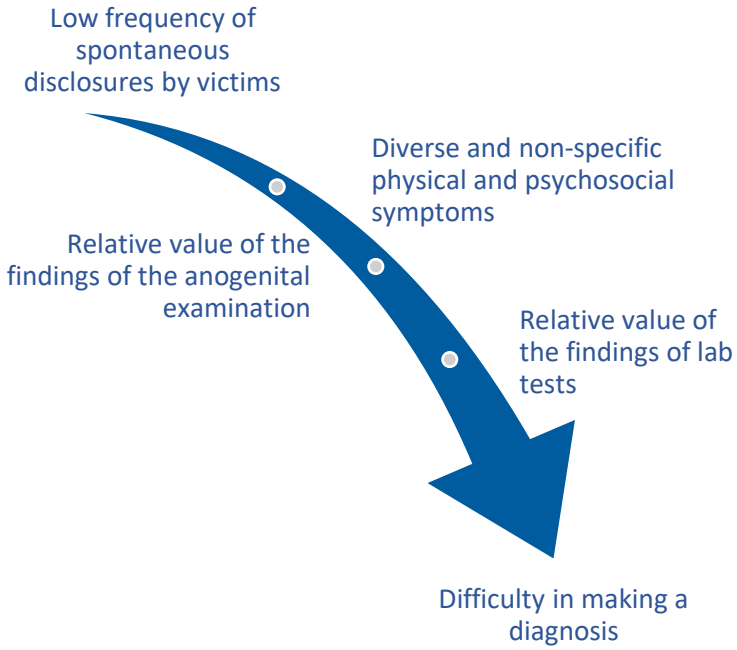

Figure 5.3. Factors that make the diagnosis of child sexual abuse difficult (Vrolijk-Bosschaart et al., 2018).

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6. Simulation-based education and training

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6.1. The concept of clinical simulation

In its Healthcare Simulation Dictionary (Lioce, 2020), the Society for Simulation in Healthcare defines clinical simulation as a "technique that creates a situation or environment to allow persons to experience a representation of a real health care event for the purpose of practice, learning, evaluation, testing, or to gain understanding of systems or human actions". David Gaba, one of the proponents of clinical simulation in anaesthesiology, offers a simpler but highly intuitive definition: "An educational technique that replaces or amplifies real experiences with guided experiences that evoke or replicate substantial aspects of the real world in a fully interactive manner" (Gaba, 2004).
In practice, clinical simulation has two main ingredients: experiences and reflections.

- The **experiences** that are constructed in clinical simulation are live experiences. They are not based on the mere observation of a simulated environment (as in the case of the simulation or rendering of an architectural model, for example); rather, participants act and interact with each other and with the environment in a way that resembles as closely as possible their real working situation. To construct these experiences, various resources are used: real or recreated work spaces, patient simulators (that is, robotic mannequins of varying degrees of complexity which can undergo a range of medical procedures and also reproduce clinical signs such as the pulse, sounds, movements, and so on); actors; medical equipment and materials; medical images; medical history documents. Ultimately, then, all or almost all the elements that are part of a real clinical situation can be reproduced. In recent years, virtual and augmented reality have also made their mark as technologies for building simulated clinical situations.
- The **reflections** are generated either individually or (in fact, in most cases) in group conversations led by the facilitator, in sessions known as *debriefings*. They may occur both during the activity and after it, and are intended to build learning at the level of the individual, the team, or the organization.

Clinical simulation has two fundamental characteristics: control, and safety. In contrast to real life, experiences that are created in a simulated context are controlled: the physical environment and the events that take place are defined in advance and respond to specific objectives. In simulations, events happen according to a plan. Also in contrast to real life, simulated experiences and reflective activities are constructed in physically and psychologically safe environments. We will address the concept of psychological safety in simulation later on.

A simulation-based activity has several stages, which generally occur consecutively over time:

1. *Prebriefing*. This is an initial meeting between facilitators and participants (Lioce, 2020) which aims to provide preparatory information and guidance in order to derive maximum benefit from the simulation. This meeting usually includes the following steps (León-Castelao and Maestre, 2019; Maestre and Rudolph, 2014): introducing the trainers and participants; setting the objectives; clarifying expectations about the consequences of the activity; clarifying roles; orienting the simulation environment and creating a fictional environment that encourages participation; attending to logistical details and underlining the importance of respect for the student and interest in their perspectives; and providing a general outline of the conversation that will be held later to analyse the performance.
2. *Briefing*. The introduction to each simulation scenario, in which information is provided about the context and the clinical details of the case that the participants need to know from the beginning (Lioce, 2020; León-Castelao and Maestre, 2019).
3. *The scenario*. The simulation itself: depending on the objectives and the composition of the group, all members may participate actively or some may take on the role of observers.
4. *Debriefing*. A group reflection session usually held immediately after the scenario, led by one or more facilitators. The Society for Simulation in Healthcare defines debriefing as "a session after a simulation event where educators/instructors/facilitators and learners re-examine the simulation experience for the purpose of moving towards assimilation and accommodation of learning to future situations." In some modes of simulation, the debriefing may not occur only at the end of the scenario, but may be included during breaks in the activity.

6.2. Clinical simulation and learning

The more we read, the more we realize that there are many different ways of explaining how adults learn and that none of the individual theories fully explain what happens when a person engages in learning (Merriam & Baumgartner, 2020; Taylor & Hamdy, 2013). In this section, we explore some of the connections between adult learning theories and the pedagogical foundations of clinical simulation.

Malcolm Knowles (1988; 2005) considered that adults learn differently from children and coined the term "andragogy" to differentiate adult learning from pedagogy. This distinction now seems artificial: many of the principles of andragogy can be applied equally to children's learning. It is probably more appropriate to think in terms of a continuum of learning, spanning the entire lifetime, with different emphases, problems, and strategies at different stages.

Constructivists like Vygotsky (1997) consider that learning is the process of building new knowledge on the basis of what is already known. This vision of learning, widely shared today, ties in closely with the simulation learning approach, which combines experience and reflection. Well-conducted debriefing conversations are not based on an exhaustive review of the appropriateness of the actions carried out during the scenario; rather, through group reflection, they discuss the experience of the simulation and relate it to

participants' previous experiences and concepts of real work situations, and encourage the sharing of different points of view and approaches in order to build new learning that is connected with previous knowledge.

The table below summarizes a series of basic concepts of the different learning theories (Taylor & Hamdy, 2013) and their relationship with key characteristics of simulation-based learning:

Basic concepts and elements of learning theories	Key links with simulation-based learning
Theories of behavioural learning: Learning is based on stimuli that cause changes in behaviour.	In clinical simulation, specific behaviours are developed and connected with motivations and results. The scenarios designed include challenges that act as stimuli for the participant.
Cognitive theories: Focused on mental and psychological processes, especially perception and information processing.	Debriefing after the simulation activities provides opportunities to make perceptions explicit, to analyse them and process the information in individual thought and in interaction with others.
Experiential learning: Adult learning is the result of experience and reflection. According to Kolb, this process is cyclical, with four phases (experience, reflection, conceptualization and experimentation). The importance of each phase in the cycle differs from person to person.	The scenario + debriefing blocks present the four phases of the cycle: in the scenario the participants live through an experience, in the debriefing they reflect on and build concepts and put them to the test by experimenting in the following scenario and/or in their real-life work.
Knowles's idea of andragogy: Adults have a different, more internal motivation to learn, which is more linked to their needs and results.	The simulation activities should be designed to respond to the real needs of the participants. The simulation is an example of a learning activity with direct participation of the student, who has the ability to influence how it develops.
Mezirow's theory of transformative learning: Critical reflection as a challenge to one's own beliefs and assumptions. A dilemma ("I am aware that I do not know") in a particular personal, professional and social context acts as a catalyst to review one's own visions and perspectives through critical reflection.	The simulation scenarios must contain the appropriate degree of challenge for the participants and their context. In the debriefing, different points of view will be shared and critically reviewed in the light of the perspectives of others.
Social learning: Learning occurs in a given context and in community. Interaction with others conditions learning.	Although some simulation activities focus on individual practice of specific technical skills, most are community learning opportunities. Creating a motivating and psychologically safe environment for group learning is part of the DNA of clinical simulation.
Schön`s reflective model: Reflection occurs during action (*reflection in action*) when we encounter a situation that challenges our previous experiences and also later when we think about this situation (*reflection on action*).	The scenario offers opportunities for *reflection in action*, while debriefing is an example of collective *reflection on action*.
Deliberate practice: The planned learning of automatic practices, releasing cognitive resources for problem-solving.	In the planning of complete simulation-based curricula, there is often room for deliberate practice.
The Zone of Proximal Development in constructivism, according to which learners can only acquire new knowledge if they can relate it to knowledge they already possess. Conversations between students and teachers in which they articulate what is already known can broaden the zone of proximal development by placing new ideas in the context of current understanding.	The reflective conversations in the debriefings of the clinical simulation are situated mainly in the zone of proximal development. In addition, the reflections are articulated from experiences emerging in the previous scenario.

Bloom's Taxonomy: a system of defining learning objectives that encompass knowledge, skills and attitudes. The objectives are categorized in a pyramid structure, from the lowest to the highest level of complexity.	Simulation and reflective debriefing make it possible to climb the steps of Bloom's pyramid (analyse, evaluate, create…).
The Johari window: This is a 4-quadrant model that relates what we know and what others know. The model shows opportunities for discovery and new learning through discussions between people with different ranges of knowledge.	The scenario and the debriefing highlight the ranges of knowledge of each of the members of the group. In a good debriefing conversation, participants enter the quadrants that are unknown to some and understood by others, thus increasing learning opportunities.
Argyris's double loop learning: The model shows the two levels of reflection that can arise from the results we obtain from our decisions and actions. At the first level (simple loop) we analyse what we have done and how we have done it, and how we can learn new behaviours that promote the desired results. At the second level (double loop) we also identify the internal motivations or mental frameworks (conditioning factors derived from our assumptions, our interaction with others, culture, and unwritten rules ...) that drive our actions.	When planning and conducting debriefing conversations, it should be identified whether the learning objectives require single-loop or double-loop reflection. Some of the conceptual frameworks used in clinical simulation, like Roussin & Weinstock's SimZones model (2017), are based on Argyris's framework.

6.3. The effectiveness of simulation as a learning tool

With the consolidation and spread of clinical simulation in health science education, the search for research methods able to study its effectiveness has diversified. A major obstacle is the difficulty of defining "effectiveness". The results of simulation training range widely, including the acquisition of specific technical skills, relationship/communication skills, the execution of complex teamwork tasks, the development of leadership behaviours, and patient-based outcomes.

In the context of technical skills, the comparison of simulation versus traditional clinical education by McGaghie et al. (2011) found quantifiable benefits in favour of simulation. Numerous studies using a before-and-after format have demonstrated the technique's effectiveness in the acquisition of specific skills in different contexts.

In relation to teamwork, a literature review by Weaver et al. (2014) identified between 90 and 100 publications per year on teamwork training in the health field. The review found that there were many effective forms of team building, including classroom and simulation-based interventions. Several studies showed a significant improvement in team performance after simulation-based team building.

Other studies have associated simulation-based training interventions with positive results among patients. Some very significant examples are:

• Draycott et al. (2006) demonstrated a reduction in the incidence of obstetric brachial palsy after a training programme in the multidisciplinary management of shoulder dystocia.

• Capella et al. (2010) analysed the improvement in time to CT, time to intubation and time to operating room in trauma patient.

• Andreatta et al. (2011) reported increased survival in paediatric cardiac arrest.

Besides demonstrating that simulation works (something that is actually widely recognized), it is particularly interesting to identify the factors that have the most influence on its effectiveness. The systematic review by Issenberg et al. (2005) is a classic reference on this issue. The factors identified are listed in the following table:

Factors that influence the effectiveness of simulations as an educational tool (Issenberg et al., 2005)
Providing feedback
Repetitive practice
Curriculum integration
Range of difficulty level
Combining simulations with other learning strategies
Including clinical variability
Creation of a safe controlled environment
Individualized learning
Defined outcomes
Realistic simulation scenarios

Another relevant question may be the possible differences in the effectiveness of the simulation between participants and observers. Various studies have addressed this issue and a recent meta-analysis (Delisle et al., 2019) compared the results using the Kirkpatrick model as a reference (Kirkpatrick & Kirkpatrick, 2016), finding no significant differences in level 1 (reactions) or level 3 (behaviour). Some statistically significant differences were found at level 2 (learning) in favour of the group of participants, but the practical implications of these differences were small, since the confidence intervals overlapped notably and differences were only observed in the case of non-direct observers. In general, although active participation provides benefits, direct observers of a clinical simulation who participate in the debriefing also have significant learning opportunities.

6.4. Key elements of good practices in clinical simulation

Every simulation activity contains an experiential and a reflective component with different levels of fidelity, and a significant deployment of both equipment and staff. For clinical simulation to be effective, it must meet certain requirements that will directly influence the results and the participant's experience.

6.4.1. Relatedness to participants' needs

The simulation must respond to the needs of the participants. Is it the same to propose a simulation session to people with little experience or to senior professionals? What is different about a simulation that aims to develop the human factor? How should it approach the learning of basic technical skills? It is essential to know the characteristics of the team that is going to receive the training: their professional profile, their degree of experience and their training needs. This information forms the basis for a successful simulation.

Various methods are available for identifying these needs (Hauer & Quill, 2011). Here we list some of them:

- Team questionnaires, what training needs do you have? In what area related to your work would you like to receive training? In what aspects would you like to improve your results and level of confidence within your activity?

- Analysis of incidents

- Observations of team coordinators

- Training path

- Patients' complaints

- Incorporation of new devices and materials

- Implementation of new procedures

- Incorporation of new professional staff

- Methods for obtaining consensus between professionals (expert consensus groups, focus groups ...)

The fact that the activity designed engages with the needs of the group will directly influence participants' learning and therefore, the outcomes of the patients that these professionals will care for.

6.4.2. Design adapted to the objectives and participant profiles

As noted above, the profile of the professional influences the design of the simulation. A simulation created to train a new team in a technical skill (for example, the management of a patient's airway) will be very different from one designed for a senior team providing integrated care during a cardiac arrest in the ICU. Therefore, we have to bear in mind the profile of the participants at all times. The objective of the simulation is also a key factor: we must ask ourselves what kind of learning the participant will obtain from this activity. For example, we might be designing a simulation for a senior team with a great deal of experience in handling new equipment, but not with this particular device. Or we might be organizing an activity to promote teamwork with these same participants. Clearly the activities in the two simulations will be different.
In this regard, the Simzones scheme of the Boston Children's Hospital Simulator Program (Roussin & Weinstock, 2017) is particularly useful. Simzones is a methodology that allows us to understand, organize and apply all these aspects in a logical and effective way. The simulations are divided into four zones (0-3). Zone 0 includes self-feedback exercises carried out by learners on their own. Zone 1 includes hands-on instruction in clinical skills. Zone 2 consists of simulations of real clinical events designed to develop previously acquired clinical skills, in which students are usually integrated into a simulated healthcare team. Zone 3 engages authentic team professionals to train aspects of teamwork. The conversations or debriefings promote Chris Argyris's concepts of single-loop reflection (on the results that our actions cause: the "what" and the "how") and double-loop reflection (on the mental frameworks that condition said actions: the "why") (Argyris, 1991). Double loop reflections would focus on zone 3.

6.4.3. Realism

For participants to get the most out of the simulation, the scenario must be as realistic as possible. The case must be designed with attention to detail and in a setting as close as possible to a real situation. To achieve this degree of realism, we combine a range of resources:

- Spaces. Depending on the objectives, specific simulation spaces and/or real workspaces are used, incorporating the contextual elements required.
- Patient simulators. These are interactive mannequins of varying levels of complexity and technical capacity. The more sophisticated ones present physical signs that the participants perceive (breathing, movements, pulse, sounds, voice ...); they can be connected to medical devices, and procedures can be performed.
- Skills simulators. These devices partially simulate a patient in order to practise a specific skill.
- Professional actors who play the role of patients, family members or other people present.
- Equipment and materials from real workspaces.

To make effective use of all these resources, a balance must be struck between the three key features of a realistic simulation (Rudolph et al. 2007, Hamstra et al. 2014):

- Technical realism: the participants' ability to interact with the stage in terms of sensory perception (seeing, hearing, touching ...) and action (doing).
- Conceptual realism: the plausibility of the events in the simulated story, and the consequences of the participants' decisions and actions.
- Emotional realism: the extent to which a scenario arouses emotions in the participants similar to those elicited by the real-life situation.

6.4.4. Debriefing based on curiosity: encouraging curiosity about good judgment

Debriefing is the learning conversation held after the clinical scenario to analyse performance in order to maintain or improve future performance (Maestre & Rudolph, 2014). It is a very valid process for involving participants after any kind of simulation or learning activity (Alinier, 2007), and is also a powerful communication exercise for improving the performance of the participants. The quality and type of interaction between facilitator and participant during the debriefing is considered crucial to the effectiveness of the learning process. Furthermore, the competence of the facilitator or debriefer has a major bearing on the quality of the participant's experience (Helmreich & Wilhelm, 1991).

The main phases of debriefing are as follows (Gardner, 2013; Rudolph et al., 2008):

- *Reactions phase*: Participants express how they felt during the simulation.
- *Understanding phase*: Participants explore what happened during the simulation.
- *Summary phase*

The fundamental point is that debriefing is STRUCTURED and is carried out immediately after the simulation. There are numerous debriefing methods that include the three phases of the model just presented, such as RUST (Reaction, Understanding, Summary,

Take-home message; Karlsen 2013) or GAS (Gather, Analyse, Summarize; Cheng et al. 2012) and other multiphase methods. The PEARLS system (Promoting Excellence And Reflective Learning in Simulation) proposed by Eppich and Cheng (2015), consists of the three-phase model with the addition of a "description" phase between "reactions" and "analysis". The novelty is that it allows the use of different analysis strategies depending on the type of participant and his/her needs (plus/delta, hands-on feedback, and so on). There is no scientific evidence that any debriefing method is superior to another.

Various strategies have been developed for the analysis phase: here, we summarize the ones that are best known.

- Hands-on feedback: A one-way communicative strategy from the facilitator to the participant about his/her behaviours and actions. Its suitability depends on the activity and the zone (i.e., zone 1 or 2), especially if a deep reflection on the part of the participant is not required.
- Plus-delta. Initially described by Klair in 2000 for discussion in aviation simulations. It is now applied in medical training groups as well. After welcoming the participants, the facilitator introduces the methodology to be followed and invites the participants to complete a "plus/delta" table describing what has gone well (plus) and what could have been better or generated doubts (delta). The facilitator then guides the participants through a review of the table, followed by a more in-depth analysis of two or three particular items. A variant is "plus/delta/plus", proposed by O'Brien et al. (2017).
- The good judgment debriefing strategy, using the "advocacy/inquiry" technique. Introduced by the Harvard group (Rudolph, 2006; 2007), this conversation technique is used to discover "gaps" in the actions of the participants related to cognitive or behavioural attributes.

6.4.5. A psychologically safe environment.

For clinical simulation to be effective and to achieve the desired objectives, a stimulating and engaging work environment must be created (Roussin et al., 2018). The participants in the simulation will probably take part in a different space from usual, using different materials and equipment. This may create some unease. The facilitator should encourage participants to display open reflective learning behaviours, openly discussing novel solutions or divergent ideas without fear of saying the wrong thing. Several measures can be taken to help achieve this atmosphere. On the one hand, the facilitator should pay attention to his/her verbal and non-verbal language used by the, avoiding terms such as "evaluation", "teacher", and "student". Attempts are made to help to members of the team to get to know each other beforehand; and if this is not possible, the facilitators take some time to introduce themselves and use ice-breaking techniques in order to create a supportive group atmosphere. It is very important that the facilitators have some prior information about the participants – who they are, where they come from, what work they do, what experience they have, and so on.

Participants must know how the activity is going to be carried out and what roles they will be expected to play. Confidentiality must be guaranteed at all times and respected by all participants. At the end of the simulation, the participants are thanked for their attendance and commitment.

6.4.6. Measuring the impact. The Kirkpatrick model.

Impact is defined as the effect that a certain intervention produces on a team or an institution. Various methods are used in clinical simulation to evaluate impact, the most common being the Kirkpatrick model (Kirkpatrick and Kirkpatrick, 2016). This method contains four levels: reaction, learning, behaviour and results. They are all important and interdependent.

- Reaction: this measures how the participants react to the training received. The easiest way is to do it through satisfaction surveys.
- Learning: the moment when the participants develop an ability; this produces a change in their thinking and acting, in addition to improving their skills. To assess learning, it is necessary to measure participants' knowledge before and after training. The objective of this level is to measure how far the participants recognize the knowledge imparted, and to analyse the relationship between what was learned and the training actions such as the contents and activities for developing learning, the organization of the course, and the tools used.
- Behaviour: this level assesses whether the participants put into practice the knowledge they have acquired; this can be done through follow-up surveys.
- Results: this level consists of evaluating the advantages that the participants obtained during the training and the impact that this has had on their real-life work. This is the most difficult level of the four to measure.

6.5. Face-to-face simulation

Face-to-face simulation activities bring together all the positive aspects of the simulation. In the first place, simulation can strengthen knowledge acquisition, helping participants to progress through Bloom's taxonomy (recognizing, analysing, applying, synthesizing and evaluating, beyond just knowing). Evidently, the active and experiential nature of the simulation also promotes acquisition of psychomotor skills. Finally, simulation has three properties that make it a particularly useful teaching technique for developing attitudes: the emotional realism of simulated scenarios, group reflection on actions and motivations, and the psychologically safe environment that allows ideas, perceptions, points of view and emotions to be shared in a sincere and honest way.

Simulation facilitates the participation and engagement of students in their own training. Learning by doing is motivating and students find it easy to connect with their own needs and their previous experiences. In face-to-face simulations, this effect is increased.

6.6. Telesimulation or online simulation

Telesimulation consists of using video technology to connect participants in a simulation with their instructor or facilitator. Although it is not a new technique, it is true that the SARS-COVID pandemic has increased the need to transform part of face-to-face simulation to remote simulation (McCoy et al., 2017; Diaz and Walsh, 2021). In this new educational formula, during the preparation of the activity the teachers must take into account the technological aspects that are not necessary in the face-to-face simulation, such as internet speed, institutional firewalls, participant access, communication resources, the availability of video and audio links, to name but a few.

While the technical aspects are important in all simulations, in telesimulation they are essential element. The activity must be meticulously prepared and alternatives must be available. Several methodologies can be used to carry out telesimulations. Obviously, participants lose the ability to perform the actions themselves, and so these simulations do not help to develop manual clinical skills. On the other hand, participants can intervene in decision-making and debriefings.

- In one format, participants connect remotely, and give instructions to their “confederates” in the simulation room. The facilitator conducts the debriefing remotely. Participants can decide via a "survey" on the platform (in this case there is no limit on the number of participants) or decide live by audio (in which case only a few participants are permitted). In the latter case, the participant plays a more important role during the debriefing.
- In another format, situations can be reproduced by professional actors who recreate the participants’ everyday professional environment in order to stimulate reflection on the ways we usually communicate.
- Alternatively, a video can be recorded of confederates and actors in a simulated situation. An example might comprise three scenes from a clinical case, at three different time points: participants watch the video before connecting to the debriefing and working on their individual plus/delta table that the facilitator makes available along with the rest of the observations of the other participants. The conversation focuses the aspects that were considered pluses or deltas in the recording. This format is very useful for activities in which decisions are not taken immediately, but depend on the evolution of the case over time.

Cognitive and communication skills are developed in all the telesimulation formats. Technical skills can be observed and discussed, but obviously cannot be reproduced by the participant.

6.7. Clinical simulation in child abuse

Clinical simulations have been applied only very rarely for the training of professionals in the assessment of abused children. The experiences are often integrated into larger programmes, which combine other teaching methodologies.

Although it is possible to use simulation to train technical skills related to the physical examination of the abused child, in an exhaustive search for simulation models we found only one commercial simulator specifically designed for this purpose (OxCAT 100 from Pharmabotics, Winchester, UK).

Clinical simulation involving actors has been used to provide training for interviewing abused children and their caregivers. In the case of the interview with the child, adult actors (Freeman 1999, Powell 2008) or virtual reality avatars (Haginoya et al., 2020; Krause et al., 2017) have been used to play the child's role. In both cases, the experience proved effective, especially if the actors had received prior training in the area of child abuse.

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7. Evidence-based psychotherapy

Noemí Pereda

7.1. Background

The experiences of violence in childhood and adolescence pose a serious risk to the physical, psychological and social development of the victims (de Jong et al., 2015). Child sexual abuse is significantly associated with symptoms of depression, anxiety, post-traumatic stress, dissociation, eating disorders, sleep disorders, low self-esteem, anger, externalizing symptoms, suicide ideation and behaviours and self-harm, interpersonal problems, and participation in high-risk behaviours such as consumption of psychoactive substances, dangerous sexual behaviours and alcohol abuse (Maniglio, 2009). Given the severity of these symptoms, interventions with evidence-based therapeutic models are required – that is, models whose results have been contrasted using the scientific method (Thyer, 2004).

Review studies carried out in this context have shown that cognitive behavioural therapy, exposure-based therapy, psychodynamic, narrative, supportive therapy, and eye movement desensitization and reprocessing have beneficial effects in reducing the post-traumatic symptoms, anxiety and depression presented by children and adolescents (Gillies et al., 2012). Similar results have been found specifically in victims of child sexual abuse, with a significant reduction in distress symptoms when they undergo psychotherapy (Harvey and Taylor, 2010).

Play therapy has been shown to be the most effective treatment for social relationship problems, while cognitive-behavioural, trauma-focused and supportive therapy are the most effective for behaviour problems. Cognitive-behavioural therapy and family therapy are the most effective in treating symptoms of distress, while trauma-focused and cognitive-behavioural therapy are effective in treating negative self-concept (Hetzel-Riggin et al., 2007). Similarly, other review studies have found that, while cognitive-behavioural therapy is generally the most effective, its combination with supportive therapy and some elements of psychodynamic therapy, such as play, improves the positive results obtained in the level of distress and symptoms in children and adolescents who are victims of sexual abuse (Sánchez-Meca et al., 2011). Indeed, even though cognitive-behavioural therapy has demonstrated its effectiveness, professionals in the clinical setting prefer unstructured and non-directive therapies, such as play, when working with victims of sexual abuse (Allen and Hoskowitz, 2016).

Situations of violence against children can pose a serious risk to the psychosocial development of the victims. It is important to study the empirical evidence on the efficacy and effectiveness of the psychotherapies applied; all of them achieve social effectiveness, but not all have demonstrated their clinical efficacy.

Trauma-focused therapies are evidence-based if they 1) address traumatic experiences directly, 2) include caregivers in treatment as important agents of change, and 3) do not

focus solely on the symptoms presented by the victim but rather aim to improve functioning, resilience and/or development (AACAP, 2010).

The intervention model described in this section has a cognitive-behavioural orientation. This is the focus that offers the most positive prognoses for achieving the objectives set, and the results obtained are evidence-based.

7.2. Trauma-focused cognitive-behavioural therapy (TF-CBT)

Specifically, trauma-focused cognitive-behavioural therapy (TF-CBT) is currently the approach that has presented the most evidence in the treatment of trauma and, especially, of victimization, in childhood and adolescence (Cohen et al., 2007). A fuller description of TF-CBT can be found in the manual by Cohen et al. (2006).

Applying the criteria of Chambless et al. (1996) and Chambless and Hollon (1998) for defining a therapeutic model as effective[1], TF-CBT is the only treatment that has become well established in interventions with children and adolescents exposed to traumatic experiences (Silverman et al., 2008). Its effectiveness has been corroborated in a great many studies in the population aged 3 to 18 years (Griffin and Wozniak, 2019), although in the treatment of adults its efficacy is limited. In children and adolescents it is particularly effective in treating post-traumatic symptoms, depression, and behaviour problems (Cary and McMillen, 2012).

The model focuses on post-traumatic symptoms, although in children under six years of age a diagnosis of post-traumatic stress disorder (PTSD) is not required: the presence of characteristic symptoms is sufficient (Cohen et al., 2010). In addition to reducing and eliminating the emotional, cognitive and relational symptoms typical of the traumatic situation, this model has demonstrated its ability to increase the level of personal resilience (Deblinger et al., 2017).

The intervention lasts between 12-18 sessions of 50 minutes each. The number can be extended to up to 25 visits in cases of complex trauma (Cohen et al., 2012) or situations of multiple trauma. Griffin and Wozniak (2019) state that a minimum of eight sessions is required to obtain effective results. Review studies such as Trask et al. (2011) show that longer treatments are more effective in reducing the symptoms of discomfort in children and adolescents who are victims of sexual abuse.

The core values of this intervention are defined by the acronym CRAFTS, focusing on the following problem points:
- **C**ognitive problems: working on the basic components until they become consolidated.

[1] These authors classify therapeutic intervention models into: *well-established treatments* that include publications with an experimental design by independent research groups, intervention manuals, statistically significant results obtained using appropriate data analyses, among other criteria; and *probably efficacious treatments*, *possibly efficacious treatments, experimental treatments*, or not tested in controlled trials.

- **R**elationship problems: understanding and respecting the sociocultural values of patients and their family, working with them to incorporate the therapeutic elements in the ideal way in the particular situation.
- **A**ffective problems: being adaptable and flexible to treat patients' needs, bearing in mind their needs and also their age and gender identity.
- **F**amily problems: the family is one of the main elements of the intervention. The main caregivers (as long as they are not the perpetrators) participate in the therapy; this may have benefits for them as well. Review studies have shown the importance for recovery of treating victims' parents or main caregivers (van Toledo & Seymour, 2013). If necessary, siblings can also take part.
- **T**raumatic behaviour problems: prioritizing and cultivating the therapeutic relationship. Trauma generates mistrust and relationship problems; so achieving an empathic relationship, trust, acceptance, etc., is essential to improve the results of the intervention.
- **S**omatic problems: emphasizing self-efficacy, including self-regulation in different domains, allows the continued use of tools after the end of the therapy, thus guaranteeing lasting results.

7.3. Components of TF-CBT

All this is put into practice through the basic components listed below, the ones that are addressed in this intervention, and which are summarized in the acronym "PPRACTICE".

Table 7.1. Components of TF-CBT

P	Psychoeducation – on the trauma and the reactions to it.
P	Parenting skills – for managing of problem behaviours.
R	Relaxation techniques – management of physiological reactions.
A	Affective modulation – learning to identify, express and modulate emotions.
C	Cognitive processing – connecting thoughts, emotions and behaviours.
T	Trauma narrative and processing – correction of cognitive distortions.
I	In vivo desensitization: overcoming traumatic memories and fear.
C	Conjoint parent-child sessions.
E	Enhancing safety and social skills.

These components are introduced progressively, and are incorporated into the treatment in three phases:

- Stabilization and skills development.
- Narration and processing of trauma.
- Consolidation and closure.
-

7.3.1. Phase 1: Stabilization and skills development

This stage covers the first five letters (PPRAC). The interventions during this stage aim to improve safety, parenting skills, techniques of affective regulation and modulation and cognitive coping skills (Cohen et al., 2006).

P – Psychoeducation	This is one of the most important components. It continues throughout the intervention, and pursues various objectives. 1) It introduces the intervention, as it explains the TF-CBT method; it helps to improve adherence to therapy and avoids premature withdrawal. 2) It allows us to explain how traumatic situations develop, their possible consequences, and to discuss responses and symptoms, explaining the findings of the clinical examination.
P – Parenting skills	Working on parenting skills is important in order to address the possible modifications in parenting routines caused by the trauma and its consequences. It is essential to establish whether difficulties in this area preceded the trauma. This stage explores the mechanisms used in the family to regulate the behaviour of the child both before and after the traumatic event. Working on this point improves depressive symptoms in children and adolescents. Parents are taught techniques such as giving praise for good behaviour, selective attention, time out, contingency reinforcement programmes, etc. Adequate family support reduces the chances of associated symptoms in adulthood (Godbout et al., 2014).
– Relaxation techniques	Relaxation techniques can help to reduce psychosomatic manifestations of stress and PTSD, such as hypervigilance, agitation, trouble sleeping, irritability, and anger. All these responses are due to an overactivation of the stress coping system, and it is important that the intervention helps to compensate for it. Relaxation is one of the first components to be incorporated into therapy to help control the levels of stress that may develop both during therapy and between sessions; it is especially important when in vivo exposure is used. The intervention provides tools that focus on breathing, mindfulness and meditation, progressive muscle relaxation, relaxation for parents, and various other techniques.
A – Affective modulation skills:	Based on the therapeutic relationship and psychoeducation regarding the need to express “good” and “bad” emotions, this component focuses on the expression and identification of emotions, especially in young children who have not acquired the necessary vocabulary to perform this type of task or to describe the intensity of their feelings. There are various ways to work on the identification of emotions, such as using children's stories, films, lists of emotions, and colours. These methods should be used until the child or adolescent is able to identify and distinguish a wide variety of emotions. As stability is achieved, the therapist begins to inquire about the emotions the child feels when experiencing symptoms or when remembering the traumatic event. This is the fundamental part of the treatment. Work on emotions is also carried out with primary caregivers, in order to provide a safe and comfortable environment for the expression of emotions.

	To help to change unpleasant emotions, the aim is to interrupt intrusive thoughts, promote positive self-directed dialogue, increase the child's or adolescent's feeling of security at the current moment, and to help develop social and problem-solving skills in preparation for the next step.
C – Cognitive coping: connecting thoughts, emotions and behaviours	Working with this cognitive triad necessarily requires successfully completing the previous level; this will allow a correct distinction to be made between emotions on the one hand and cognitions that are proper to internal dialogue on the other. This distinction is important in order to be able to generate alternative thoughts that help to modify the accompanying feelings. Once this is established, the intervention focuses on how these two factors influence behaviour and its relationship to the responses in the environment. It is also important to work on the thoughts of guilt that arise, as well as other kinds of inappropriate thoughts, in order to offer a safe and supportive environment. Relaxation techniques can help subjects to feel happy and be able to express themselves. Cognitive processing usually occurs after the creation of the trauma narrative.

7.3.2. Phase 2: Narration of the trauma and processing

The phase comprises only one component: the narration of the trauma and its cognitive processing (T). This is the most intense and longest stage in the model, since it is here that the traumatic situation is directly addressed.

The treatment acts on the cognitive distortions that victims develop during the abuse and on the symptoms that they present. Talking about the abuse, therefore, is the first step in breaking through the victim's silence and feelings of isolation. Remembering and describing the experience can help to reduce the tendency towards dissociation and denial which is characteristic of many victims of sexual abuse, and which has served as an adaptive strategy during the victimization (Macfie et al., 2001).

Re-experiencing the feelings associated with the abuse is a key part of the therapy, and is a priority objective of the intervention in cases in which the victim presents complex PTSD. This form of the disorder derives from prolonged and repeated traumatic experiences in childhood and leads the child to use dissociative coping strategies that allow him/herto continue with his/her life adaptively while the situation of risk persists (see the manual by Ford and Courtois, 2013).

The main objective of this stage is to disconnect the thoughts and memories of the adverse event from the unpleasant emotions that it may arouse – terror, horror, helplessness, anxiety, shame, and so on.

The intention is that the child or adolescent should gradually describe in detail everything that happened before, during, and after the experience. Following on from the previous phase, a key feature of this description are the emotions felt at each point in the narrative.

T- Trauma narration:	It may be useful to use a book, a poem, or a film that describes a traumatic event that serves as an example. When we turn to the victim's own story, we start with non-traumatic events. It may be necessary that, in the first instance, the children or adolescents provide descriptions from their current perspective, and then go into a detailed explanation as if the event were happening now. If the victim has experienced more than one event, we start with the one that generates the greatest distress. Different narratives can be created if the people involved are different. By sharing thoughts and emotions, the therapist can help recode the information using what was learned in the previous phase. The narration of the trauma must be understood as a process, rather than as a product. This stage is considered to be particularly important to the effectiveness of therapy: it reduces fear and anxiety, and optimizes long-term results (Deblinger et al., 2011).
Cognitive processing:	Once the trauma narrative has been created, the therapist must identify, explain and correct the maladaptive cognitions, working together with the patient. We know that these cognitions are maladaptive either because they are absolutely false or because they imply the generalization of situations that are not necessarily the way the patient believes them to be. We stress the personal responsibility to choose whether to maintain previous cognitions or, on the contrary, to modify them; this is especially important in resistant cases. At the same time, we also work on the misconceptions that the main caregivers may have regarding their responsibility for the trauma, and the emotional impact that the situation has had on them.

7.3.3. Phase 3: Consolidation and closure

The last three components (ICE) are dealt with together. Although we always work with the family, in this phase joint sessions are held. The objective is to increase the child or adolescent sensation of safety and to improve their normative development.

I – *In vivo* mastering of traumatic memories:	This is the only component of TF-CBT that is optional. In situations in which the victims are still fearful, it is difficult to carry out. It is used in children who avoid safe or innocuous situations, when this avoidance has a negative impact on their development. *In vivo* exposure is the technique used to reduce the distress generated by feared situations. The main problem with avoidance is how powerful it is, and the self-feedback that is generated by calming negative emotions by avoiding distressing situations or places; in these cases, exposure should be proposed, since it is the most effective weapon against avoidance. This component implements a progressive exposure plan for addressing and overcoming fear. The intensity of the intervention is initially very low, and then increases gradually in a reassuring and safe way. The relaxation techniques learned in the first phase are particularly useful here.

C – Conjoint child-patient sessions:	Carrying out TF-CBT requires holding joint sessions between caregivers and patients that review and provide information, practise the parenting skills taught, and share the trauma narrative. These sessions encourage participants to communicative openly. The purpose is to provide the opportunity for parents and children to practise the skills worked on, and to reinforce their relationship, so that the child or adolescent feels more comfortable talking about the trauma with their caregivers (and, if appropriate, about other issues as well). These sessions must be well structured and should only be held when parents have sufficient emotional self-control. Failure to ensure this may negatively affect the patient's therapy.
E – Enhancing safety and future development:	This is the last component, but it is not necessarily the last thing that is worked on; in fact, it can be incorporated from the beginning. The aim is to develop personal safety skills, which are especially important after experiences of interpersonal violence. The idea is to work together to create a contingency plan for circumstances that may generate insecurity: for example, all those new situations that the child must face (like changing school or city). To increase the feeling of security, the *in vivo* exposure plan implemented in the previous steps may represent an important basis for overcoming fear.

The last three components (ICE) are dealt with together. Although we always work with the family, in this phase joint sessions are held. The objective is to increase the child or adolescent sensation of safety and to improve their normative development.

As we can see, this therapy requires a high degree of flexibility (as we mentioned when discussing its basic components) to adapt it to the needs of each case. If we ignore the particular characteristics of the situation and the difficulties and consequences that it has generated, we are unlikely to be able to intervene appropriately.

7.4. Conclusions

With the effectiveness of TF-CBT already demonstrated, in recent years several studies have attempted to measure its efficacy: that is, whether it is really useful in practice with diverse populations and traumatic situations, and not only in the context of child sexual abuse. These studies have demonstrated the therapy's efficacy in cases of sexual victimization, physical and emotional abuse, exposure to family and community violence, natural disasters, traffic accidents, serious illnesses, and in child soldiers, among other situations (Cohen et al., 2017; NICE, 2018).
With a considerable body of empirical evidence that supports its use, this treatment model serves as the basis for effective and efficacious psychological interventions in children who are victims of violent events.
We stress the importance of professional training in the success of the application of the TF-CBT. The patients who show the greatest improvements in their post-traumatic symptoms are the ones attended by professionals who are perceived as being

competent in the use of the model (Espeleta et al., 2021) and by those who have received fidelity coaching (Amaya-Jackson et al., 2018).

7.5. References

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8. Towards the successful implementation of the education and training of professionals in the Barnahus model

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After this description of the contents and characteristics of the training, we need to consider how it is presented and also the tools used to transmit and consolidate it. This aspect is essential if professionals are to acquire the necessary skills. In this section, we discuss critical and cross-cutting features of the training that are essential to its successful implementation and the formation of skilled professionals.

At conceptual level, implementation science is defined as: "the scientific study of methods to promote the systematic uptake of research findings and other evidence-based practices into routine practice" (Eccles & Mittman, 2006). Therefore, it has two main objectives (Bauer & Kirchner, 2020):

- To identify barriers to, or facilitators of, the incorporation of new advances across multiple contextual levels (individuals in treatment, providers, organizations, and other interested parties).
- To develop and apply implementation strategies that can promote the uptake of evidence-based clinical innovations.

8.1. Implementation of the training

8.1.1. General considerations

In the field of child and adolescent post-traumatic care, traditional implementation approaches are not always the most useful. Albers et al. (2017) proposes a change in focus, concentrating on the specific modules or elements that have proven to be most effective. In this approach, the context and objectives are vital to deciding how a particular intervention will be carried out and which elements will be prioritized. The training for Barnahus professionals, which comprises concrete, focused thematic areas, is a good example of this line of action.

However, evidence-based training is often difficult to implement because it has to be tailored to the field of work and the professionals or target audiences. Albers et al. (2021) propose an interesting new figure, the implementation support practitioner, to cover precisely this need. These are professionals whose job is to offer support for the implementation of evidence-based programmes and training. Among their functions are the implementation and evaluation of strategies related to training and education.

The implementation of evidence-based strategies can lead to improvements in public health, but the fulfilment of the objectives established depends on the process by which these strategies are applied. The Interagency Collaborative Team process is a model that supports multidisciplinary interventions carried out by public services in large geographical areas. The model aims to enhance effective team functioning by increasing

trust and collaboration among participating institutions (Hurlburt et al., 2014). The philosophy of the Barnahus model shares this objective.

8.1.2. Introduction to implementation

Implementation consists of several key dimensions and concepts (Shelton et al. 2020). These concepts are described in one of the most frequently used structural models, the EPIS (Aarons et al., 2011), which highlights four successive phases of the implementation process: Exploration, Preparation/Adoption, Implementation and Sustainment. Recently, Koh et al. (2020) introduced a variant with five main domains: Context Assessment/Selection, Dissemination, Adaptation, Implementation, and Sustainability.

The first domain includes a comprehensive evaluation of the context and environment, an assessment of the acceptability and appropriateness of the implementation strategies used by the stakeholders, and an understanding of the organization's capacity, atmosphere, and readiness to carry out the intervention. It also comprises an assessment of other factors identified by stakeholders as important in influencing implementation on the ground.

As regards *dissemination*, there is a general consensus in the literature that passive approaches such as the publication of guidelines, mass mailing, and publications in journals have not been effective. Better results are achieved with approaches that actively involve participants (e.g., media, social media, political briefings, workshops, seminars, and individual meetings).

In terms of *implementation* itself, the strategies have been classified into six groups, which include exploration/planning (e.g., local needs assessment), education (e.g., the provision of training manuals and sessions), funding (e.g., incentives, staff restructuring), quality management (e.g., data management systems) and attention to policy requirements (e.g., accreditation).

Regarding *sustainability*, recent research sees it as a process that is independent of implementation (Birken, 2020). However, once implemented, there is little evidence available to determine how strategies should be sustained. Theories such as the institutional theory (Birken, 2020), suggest that organizations may be more likely to sustain practices if they are under mimetic, coercive or normative pressure to do so.

8.2. Types of implementation

To understand the importance of this point, here we analyse the strategies for developing capacities implemented in the field of public health (DeCorby-Watson et al., 2018).

These interventions include technical assistance, consultancy, virtual training sessions, online or face-to-face training, online learning, and skills-based courses. The results of the few studies of the efficacy of these interventions carried out to date are detailed below:

Online teaching

Online teaching improves knowledge and skills compared to no teaching at all. However, it does not perform better than other types of teaching (for example, face-to-face teaching). The factors that influence the effectiveness of online teaching depend on the objective pursued. If the objective is to broaden participants' knowledge, interventions that have a discussion component are more effective; however, if the objective is to increase their skills, practical exercises achieve better results.

Education through self-directed learning

Self-directed learning has the following characteristics:

- The teacher acts as a moderator and not as a source of resources,
- It is the students who look for sources and strategies,
- It includes a self-assessment module of the knowledge/skills acquired.

This type of intervention obtains improvements only in students with high levels of engagement and advanced knowledge. The degree of interactivity, the duration or the time elapsed between the intervention and the evaluation are not factors that significantly affect the impact of this type of teaching. In fact, the meta-analysis by Murad (2008) shows that self-directed learning performs only slightly better than traditional teaching – and even then only in terms of increasing knowledge, not in terms of improving skills.

Workshops and training

These interventions achieve improvements in knowledge, skills, and self-efficacy, and can bring about changes in practices or policies, in behaviour and in the application of knowledge. They produce quantitative and qualitative increases in knowledge, and also gains in skills; improvements in self-efficacy lead to increased confidence in dealing with the topics discussed, greater engagement, better self-perception of one's abilities, and feelings of empowerment and motivation. Finally, training helps to promote new policies and actions concerning the topics discussed.

Technical assistance

One-to-one support through consultancies or meetings has been shown to increase knowledge, skills, leadership, and self-efficacy.

In implementation, then, it is important to consider how the content of a specific type of intervention will be presented and distributed to users. This is where organizations and companies that provide resources to planners of training programmes take on special importance. Among their strategies, the most successful have proved to be the distribution of training materials (for example, manuals and guidelines) either in person or electronically; the design of interactive training; and the development of materials to facilitate the educational process (Proctor et al., 2019).

8.3. Aspects that are relevant during the implementation process

Aspects of the environment such as the work setting can influence the transfer of training in the field of health, so it is important to take into account the organizational context. In general, the existence of positive support networks, communication, culture, implementation climate and readiness for implementation can facilitate training

transfer (Jackson et al., 2019). Jacobson et al. (2018) list the possible difficulties, and highlight the hierarchical structure as one of the main obstacles to change in the primary care model which complicates multidisciplinary decision-making.

Similarly, contextual factors can influence the behaviour of professionals (Powell et al., 2016). Organizational, legislative, economic, political and social factors can affect their performance, and so the authors propose multi-faceted and multi-level strategies to achieve the widespread implementation of evidence-based practices.

The implementation of the training process also involves intermediaries – organizations that work with policy makers and service providers to facilitate the effective implementation of evidence-based policies, programmes and practices. An example of this is the proposal by Bullock et al. (2018) who, in a study of three different mental health systems, showed how an internal infrastructure can be built by creating a network between the different systems to support the application of policy and thus achieve better results.

In addition, in line with the central aspects of teamwork and coordination that we mentioned in previous sections of this study, a very interesting proposal is the Community Development Teams approach. The goal of these teams is to create a network for problem solving and resources sharing for their programmes in order to increase the chances of success. This idea is especially relevant to the development of the Barnahus model.

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