

Chapter 23: Maltreated and traumatized children and young people

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Abstract:

This chapter starts by reviewing what childhood adversity is understood to encompass, with a particular focus on trauma and maltreatment. We consider how commonly children encounter these adversities, as well as the proportion of affected children who go on to experience disrupted development. We then examine what is known about the mechanisms by means of which these effects operate. Progressively, there will be a focus on language and social communication in the context of childhood maltreatment. First, we critically examine what is known about the consequences of maltreatment on development of structural language, and then what research tells us about the impact of maltreatment on pragmatic language and social communication. Thereafter, the chapter reviews recommendations for adversity-informed language and communication assessment and intervention for traumatized and maltreated children and young people. The chapter ends with a look to possible future directions for research in this complex field, allied to advances in ecological rather than deficit-based models of practice and in understanding of the role of social cognition.

Key words: adversity; children; language; maltreatment; pragmatics; social communication; trauma

23.1 Introduction

This chapter is concerned with the effects of childhood trauma and maltreatment on socio-pragmatic development. In section 23.2, we explore key concepts and definitions around childhood adversity, aiming to derive some clarity and consensus from what is a rather confused, and contested landscape. We examine the factors that make it difficult to establish prevalence rates with certainty. We then consider widespread and long-term potential consequences associated with exposure to trauma and maltreatment, particularly when such adversity happens in the critical developmental period of early childhood. Contemporary ecological concepts of resilience are explored, introducing important dimensions of adaptation and functioning that go well beyond the affected individual to include the levels of family, community, and society.

First, it is important to acknowledge some areas not included in this chapter. Globally, the prevalence of children's exposure to potentially traumatic events (PTEs) is influenced by armed conflict, natural disasters and chronic community violence. The level of exposure to such PTEs in affected populations, predominantly in low-income and middle-income countries, is significantly under-researched (Gunaratnam and Alisic 2017). It cannot, therefore, be the focus of this chapter. However, it is important at the outset to note this gulf in our understanding of children's experience of adversity worldwide.

Additionally, there is increasing recognition of the potentially traumatic impact on children of medical intervention, particularly when they lack understanding of the rationale for procedures. In such circumstances, children may struggle to process what may feel like the contradictory messages of loved ones assenting to them encountering painful and intrusive experiences (Yehuda 2016). Although this emerging area is very relevant to many children with language and communication impairment, owing to the high prevalence of associated medical and disabling conditions, it too is lacking in research activity and shall not be a central focus here. Instead, we concern ourselves primarily in this chapter with trauma in the context of intra-familial violence, abuse and neglect.

23.2 Childhood adversity, trauma, abuse and neglect

In this section, we will briefly consider the nature and scope of serious childhood adversities, proposing a simple but useful dichotomy of those involving threat and those involving deprivation. Trauma and abuse, it will be suggested, fit into the former category, whereas neglect fits into the latter. We will then review research evidence of the consequences of adversity, particularly when experienced in early childhood at a time when critical developmental foundations are expected to be laid down and when individuals lack the language and cognitive capacities to process adverse experiences adaptively.

23.2.1 *What is childhood adversity?*

There has been a proliferation of research interest in childhood adversity over recent decades (McLaughlin 2016). Subsequent to the publication of a seminal study (Felitti et al. 1998), suggesting significant and widespread detrimental health and social effects of adverse childhood experiences (ACEs) lasting into adulthood, this notion has also gained enthusiastic policy uptake, such that it is now recognized as one of the major global public health issues of our time (Landolt et al. 2017). Caution is advised by McLaughlin (2016, p. 3), however, emphasizing that “childhood adversity is a construct in search of a definition”. This author calls for clarity over which experiences surpass common stressors of childhood and argues that the commonplace practice of straightforward arithmetic totaling of adversities is excessively simplistic, neglecting as it does important dimensional and contextual considerations.

McLaughlin (2016, p. 6) proposes the following definition of childhood adversity: “exposure during childhood or adolescence to environmental circumstances that are likely to require significant psychological, social or neurobiological adaptation by an average child and that represent a deviation from the expectable environment”. In agreement with Humphreys and Zeanah (2015), McLaughlin (2016) further postulates that adversities take two distinct forms: those involving *threat* (such as exposure to violence) and those involving *deprivation* from expectable inputs (such as exposure to language). Threat-related adversity encompasses all forms of trauma as well as abusive forms of maltreatment, while deprivation-related adversity relates to circumstances in which there are significant shortfalls in meeting a developing child’s basic needs, such as neglectful forms of maltreatment.

23.2.2 Trauma

The term 'trauma', used in accordance with diagnostic manuals, refers to *exposure* to events involving a significant danger to one's safety, or to witnessing or learning about such events happening to a loved one (American Psychiatric Association 2013). Trauma has also come to be used to refer to a person's *response* to such exposure, which can lead to some conceptual confusion.

Trauma- and stressor-related disorders (TSRD) are conceptualized in the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) to exist on a spectrum chiefly including, among others, Post-Traumatic Stress Disorder (PTSD) (Goldbeck and Jensen 2017). The nosology remains problematic, however, with the inclusion in the same category of Attachment Disorders, the origins of which lie in the *absence* of expected inputs rather than the *presence* of threats.

In developed countries, most studies confirm that in excess of 50% of adults will retrospectively report having experienced one or more PTEs before adulthood, such as abuse or witnessing violence. It is important in the context of this chapter to note that the majority of reported exposures take place during adolescence (Landolt et al. 2013). Much less is known about levels of exposure across childhood, particularly in the developmentally sensitive period of infancy, although recent research confirms both the existence of such exposure and its detrimental effects (Osofsky et al. 2017). PTEs tend to co-occur, with around half of respondents indicating exposure to more than one such event (McLaughlin et al. 2013).

Trauma often leads to psychopathology, but not invariably. One helpful way to consider this is that it is adaptive for people encountering an adverse experience to respond in some way. Indeed, it is normal to respond to abnormal situations. When that 'fight/ flight/ freeze' response persists beyond the need for it, however, we can then begin to deem the individual's response as maladaptive or indicative of psychopathology. Rates of PTSD after exposure to PTEs were calculated at 16% in a meta-analysis (Alisic et al. 2014). Highlighting the importance of determining factors relating to risk and resilience in any set of unique

circumstances, resultant psychopathology in this study was found to be more likely among girls, those with prior experience of trauma and where the trauma experienced related to interpersonal violence (particularly from a close caregiver). At present, results of epidemiological research into trauma in childhood vary widely, depending on the scope of events included as potentially traumatizing, demographic differences in the participants sampled, and measurement variables (Gunaratnam and Alisic 2017).

23.2.3 Maltreatment

Abuse involves acting in such a way as to inflict significant harm. It can involve physical, sexual and/ or emotional abuse. Importantly in the context of this chapter, emotional abuse may involve conveying to a child that they are worthless or valued only to the extent that they meet the needs of another person. It may involve conveying inappropriate expectations for the child's age or developmental stage. It includes causing the child to feel fearful, or it may involve exploitation of the child (Scottish Government 2014).

Neglect is by far the most common form of maltreatment of a child. It involves the persistent failure to meet the child's basic needs, such that there is likely to be serious impairment to the child's health or development (Proctor and Dubowitz 2014). Neglect can involve the failure to provide for physical needs (e.g. food), the failure to ensure access to required medical care or education, or the failure to protect the child from harm. Importantly in the context of this chapter, neglect can involve inadequate provision to meet the child's emotional and/ or developmental needs. Failure to provide sufficient exposure to language and communication models, such that the child's development of these capacities is compromised, would be an example of neglect through absence of expectable inputs.

Child maltreatment is, by consensus, understood to be significantly under-reported (Sedlak and Ellis 2014). Children who have been maltreated may not be able or willing to disclose this fact. Adults who suspect the maltreatment of children, or who receive disclosures from children, may be reluctant to report it, or indeed may be deterred from doing so for a variety of reasons. Estimated incidence figures vary significantly, depending on who is asked, what they are asked about, when they are asked, and how they are asked. Reports of these figures introduce further variation, with frequent conflation of potentially traumatic

events (such as witnessing community violence) with substantiated harm imposed on individuals. So, for example, Lambert et al. (2017, pp. 49) cite findings that up to one half of youths in the USA have experienced abuse or have witnessed violence, whereas Sedlak and Ellis (2014) report consistent figures for all forms of maltreatment in the same country at around 40 per 1000, based on officially reported cases and the wider experiences of mandated reporters. Around three quarters of those cases represent neglect and the remainder abuse (Sedlak and Ellis 2014). Retrospective studies of adults who report having been abused as children indicate much higher figures.

There is no clear answer to the question of why maltreatment of children occurs, and in individual cases the context is likely to involve a complex mix of factors. Persistent areas of investigation include intergenerational transmission across generations of families (Schelbe and Geiger 2017) and/or links to wider familial violence, such as intimate partner violence (Alhusen et al. 2014). Other investigators examine associations with disadvantageous socio-political environments, such as poverty and discrimination (Drake and Jonson-Reid 2014). For the purposes of this chapter, it is important to note the significantly increased likelihood that children with disabilities will encounter maltreatment, especially those with language and communication impairments (Crowley 2016; Giardino et al. 2014).

23.2.4 Consequences of maltreatment on the developing child

Serious and pervasive consequences of early adversity can occur across the lifespan, increasing the likelihood of all forms of physical ill health and psychopathology, as well as detrimentally affecting a wide range of developmental outcomes including communicative and social functioning (Lambert et al. 2017).

Trauma and maltreatment in early childhood are particularly detrimental because they occur at a highly sensitive developmental period considered to be essential to 'laying the foundations' of future development (McLaughlin 2016). Evidence has accumulated of permanent damaging effects on neurobiology (McCrorry et al. 2010), and on general development, mental health and attachment relationships (Vasileva and Petermann 2018). Likewise, research demonstrates significant hampering of an affected individual's development of key psychosocial capacities such as emotional regulation, linked with

organizational and self-regulatory cognitive processes like executive functioning (Ford and Greene 2017). There is consensus that childhood experience of maltreatment increases risk of poor lifetime outcomes in a host of academic, vocational and health areas (Vasileva and Petermann 2018).

Any child's response will involve a unique combination of risk and resilience factors (Ungar et al. 2013). Resilience is construed as encompassing a wide range of protective or adaptive factors, importantly not only at the level of the child, but also encompassing factors related to family functioning and context as well as the wider community. In this view, relevant risk factors at societal level include daily stressors for individuals and families arising from struggle, stigma and discrimination (Hyter 2007).

Aspects such as timing and chronicity of exposure to maltreatment, nature of maltreatment and relationship to the perpetrator are also considered critical variables (Goldbeck and Jensen 2017). Experiencing interpersonal violence or witnessing it in relation to a key attachment figure is considered particularly likely to lead to complex, pervasive and sustained developmental sequelae (Lambert et al. 2017). Prolonged or repeated exposure to severe stressors, especially without the ability to escape or avoid the maltreatment (such as in the case of abuse of a young child by an attachment figure) heightens risk of multiple morbidity (Osofsky et al. 2017).

Studies have, therefore, focused on developmental sequelae of maltreatment in young children. Indeed, often such investigations focus on highly specific sub-groups of maltreated children in order to shed particular light on the nature of developmental associations. Vasileva and Petermann (2018), for instance, reported on a systematic review and meta-analysis of studies investigating aspects of development in children under the age of 7 years and residing in foster care. In all, 41 studies were included. Overall, 39% of the combined sample showed developmental delays, the greatest proportion of which related to cognitive development. In addition, 38% of the sample demonstrated clinically-significant psychological problems, with approximately equal proportions of internalizing and externalizing problems. Levels of both developmental delays and mental health problems,

therefore, while far from universal, were found to be significantly higher than levels typically reported in the general population.

McDonald et al. (2013) reported on detailed developmental evaluations of pre-school children selected from a specialist family-care facility where all child attendees had substantiated experiences of abuse and/ or neglect. Assessments were conducted on 49 children identified by staff as having particular developmental or behavioural concerns, so it is perhaps unsurprising that high levels were found. In 91% of assessments, there was evidence of significant developmental delay and/or significant behavioural problems. Illustrating the high levels of co-morbidity present in the sample, in 63% of assessments both developmental and behavioural concerns were highlighted. In total, 85% of assessments revealed concerns about the preschoolers' emotional or behavioural functioning. The nature of concerns in this respect is illuminative: predominantly the children showed internalizing responses such as being wary or withdrawn (53% of assessments), or a combination comprised of internalizing with externalizing behaviours (a further 15% of assessments). The children were found to lack social skills required for co-operating with their peers, such as sharing and turn-taking. With regard to the nature of developmental problems, by far the most frequent presenting problem was language delay (established in 65% of assessments).

From infancy and across childhood, language and communication develop at the same time as other psychosocial capacities in a highly inter-related manner (Osofsky et al. 2017). A young child experiencing maltreatment, or indeed an older child functioning at an earlier developmental stage, is more likely to lack the emotional and cognitive skills necessary to move towards healthy psychological adjustment. Such a child will also typically lack the necessary language skills to process the experience of maltreatment in a helpful way, either in terms of interior monologue or through expressing it to others (Yehuda 2016). Relative youth and/ or lack of communicative competence may also mean less access to potentially protective relationships in the wider community such as with educators. Therefore, it is likely that there will be heightened longitudinal consequences owing to the compounding influence of early disruptions on later development. Given the centrality of language in

learning, impacts on language skills are likely to play a central role in cumulative ongoing developmental cycles of disruption.

23.3 Language and communication in traumatized and maltreated children

In this section, we first consider the evidence base for the established consensus of an association between trauma and maltreatment on the one hand and disrupted language and communication development on the other. Next, we review the mistaken assumptions, inconsistencies and notable gaps currently characterizing the research landscape in this field, highlighting priority areas for future investigation. Focusing our attention on particular aspects of language development, we describe first research evidence of impacts on structural language before considering the relatively neglected area of pragmatic language and social communication in this complex and underserved population.

23.3.1 Language and communication disruptions in traumatized and maltreated children: what do we know for sure?

Research to date demonstrates close links between childhood exposure to trauma and maltreatment and disrupted language development. The accumulated evidence is drawn together in two meta-analytic systematic reviews (Lum et al. 2015; Sylvestre et al. 2016). The former specifically focused on language (receptive vocabulary, receptive language and expressive language). It reviewed 26 studies, conducted over 4 decades, representing data from 1,176 maltreated children and 936 controls. Language skills were consistently shown to be less well developed in maltreated children, as a group, when compared to non-maltreated controls matched for socio-economic status (Lum et al. 2015).

The second review widened its scope to include pragmatics as well as receptive and expressive language. Overall, analyses of data from the 23 independent samples meeting inclusion criteria showed detrimental impacts on assessment performance of maltreated children, as a group, on standardized language tests, compared to children who have not been similarly exposed (Sylvestre et al. 2016). Findings in support of an association between maltreatment and language were not universal (9 out of 23 samples in this meta-analysis did not yield significant effect sizes). However, overall significant effect sizes for receptive language ($g = -.53$), expressive language ($g = -.67$) and pragmatics ($g = -.48$) were taken to

confirm links between exposure to childhood maltreatment and less favorable language outcomes.

The consensus that maltreatment and language are linked, however, needs to be tempered with an appreciation of all the important questions to which we do not yet have answers. The cross-sectional nature of studies to date, for example, means that we know little of the nature of the relationship between maltreatment and language development. The temptation to assume a direct causative relationship (as concluded by Sylvestre et al. 2016, for example) must be curbed, for the available evidence does not currently support such a leap. We do not know if the direction of the relationship between maltreatment and language is unidirectional, bidirectional, or whether it is more complex. Indeed, it is not definitely known whether, or to what extent, the relationship is mediated or moderated by one or several other factors either within the child, such as cognitive ability, or external to the child, such as caregiver 'psychological availability', as potentially indicated in Sylvestre and Merette's (2010) comprehensive risk analysis. Longitudinal research is necessary, controlling for a wider range of potentially confounding variables including: maltreatment differences; child, family and community factors; and variables in how research is conducted.

Detrimental effects of maltreatment on language have been consistently found, but their magnitude should not be over-estimated. When results of studies were statistically combined, on average maltreated children performed between .48 and .67 standard deviations (SD) below controls on standardized language assessments (Sylvestre et al. 2016). While this confirms language impairment for the maltreated group, some caution is needed because SD scores on formal measures have limited utility in complex populations such as this, where even well-matched control participants from similar socio-economic backgrounds score, on average, below the mean (Eigsti and Cicchetti 2004).

There is clear consensus that prevalence rates of language disruption in maltreated children are significantly higher than in the non-maltreated population. Importantly, however, serious inconsistency and variability are noted in reported prevalence rates for language impairments in maltreated children, which range from 35% - 73% even within the

comparatively well-defined subset of children in foster care (Krier et al. 2018). Discrepancies relate to issues of definition, measurement, and the practical challenges of identification and data recording for this complex population.

Since not all maltreated children experience detrimental effects on language development (Lum et al. 2018), we should not allow group effects to blind us to individual differences. Currently, we know too little about why some children's language and communication appear to be affected and not others. We need to understand more about factors that may predispose, precipitate, and/or perpetuate such effects – and indeed what factors may be protective. Research to date has often failed to account for critical variables such as whether children have remained in environments where maltreatment was experienced and, if their living circumstances did change, the manner in which they changed. Yet, practice determines that important variation exists. In a sample of 82 maltreated children under 12 years (Lum et al. 2018), the total number of out-of-home care placements individual children had encountered ranged enormously from 1 to 185. They also represented a wide range of socio-economic and educational differences known to be associated with language development.

For too long, research in this area has failed to account for important variation in children's experience of trauma and maltreatment. We need to understand much more about differential impacts of the timing, frequency, chronicity and type(s) of exposure to maltreatment in relation to varied language and communication outcomes. For example, we need to determine whether very early exposure to maltreatment carries proportionally more risk, as widely assumed and as tentatively indicated in the review by Sylvestre et al. (2016). Further, the evidence base does not currently support predictions about likely language outcomes based on whether the maltreatment was ongoing and whether the perpetrator was a close contact as opposed to a distant or occasional contact.

Moreover, in important areas, there is recent cause to question some long-established assumptions. One such example is the long-held view that neglect appears to have a greater impact on language development than abuse. Such reports (e.g. Hwa-Froelich 2015) were based on findings of early studies (Allen and Oliver 1982; Culp et al. 1991; Fox et al. 1988).

Yet, more recent research including a meta-analytic review (Sylvestre et al. 2016) and a statistical investigation of covariance (Lum et al. 2018) indicates that no maltreatment type is more associated with language functioning than any other. In part, discrepancy arises from the difficulty in differentiating children who have been abused as opposed to neglected when, in fact, maltreatment types often co-occur, and one can often overshadow or 'mask' the other (Sylvestre et al. 2016). Clearly, caution is warranted at present, as is further, systematic, multi-factor investigation.

Importantly, current evidence cannot yet explain the nature of the interplay between language and cognition in maltreated children. Specifically, it has not yet been established whether linguistic skills are disproportionately affected relative to other cognitive capacities. There are some indications that this could be the case (Lum et al. 2015), although contradictory findings arise from a detailed risk analysis in which cognitive development emerged as a single, central risk factor for language disruptions (Sylvestre and Merette 2010). The majority of studies investigating language in maltreated children have failed to report on measures of child IQ (19 of the 26 studies reviewed by Lum et al. 2015). Furthermore, these studies have not typically accounted for other dimensions of cognition that have been shown to be compromised in maltreated children, such as attention, learning and memory (De Bellis et al. 2013) or emotional regulation and executive functioning (Ford and Greene 2017). If we are to develop optimally effective interventions, then clearly it will be important to elucidate the relative roles of cognition and language development in this context through further investigation.

With a view to developing effective preventions and intervention, future research is needed to determine the mechanism(s) by which language is affected in maltreated children. Krier et al. (2018) propose a complex combination of genetic and environmental risk factors for language disruptions, operating within a context often characterized by heightened neurophysiological stress resulting from maltreatment conditions and diminished caregiver and/or community support for language development. Meanwhile, based on a study of severely neglected children, Sylvestre and Merette (2010) suggest that key challenges include the psychological availability of key caregivers, based on low acceptance of the child and reduced sensitivity towards the child's development needs. Advocating a systemic,

ecological approach, they suggest that the caregiver's own experience of adversity, and specifically of abuse and neglect, often underpins the intergenerational transmission of language disruption within the context of maltreatment. They posit a complex interplay of cognitive and linguistic challenges for a maltreated child, from the prelinguistic stage, underpinned by a compromised relational context.

This section has highlighted the consensus view that maltreatment and language development are linked. Research has shown that language development is disrupted at considerably higher rates among maltreated children as a group. More refined approaches to research would elucidate more about the mechanisms by means of which language development is affected in the context of trauma and maltreatment, and about the myriad of factors potentially influencing this. Crucially, we also need to know a good deal more about the specific aspects of language development affected by experiences of maltreatment. We now go on to review what is currently known about impacts on different dimensions of language development, first looking at structural language and then considering social communication and pragmatic language.

23.3.2 Structural language in traumatized and maltreated children

Groundbreaking studies beginning around two decades ago demonstrated significant disruptions in the structural language development of maltreated children. At an average age of 31 months, syntactic development, as measured via Mean Length of Utterance (MLU), was significantly behind in maltreated toddlers compared to demographically matched controls (Coster et al. 1989; Beeghly and Cicchetti 1994). Later, Eigsti and Cicchetti (2004) focused specifically on morphosyntactic development in maltreated children by the age of 5 years. While control children matched for socioeconomic status showed significant delays (13 months) against age-expectations on the Index of Productive Syntax, the magnitude of delay was significantly greater in the maltreated group (16 months).

This study demonstrated the exacerbating influence of maltreatment status on syntax, an aspect of development thought to be closely related to cognition (Eigsti and Cicchetti 2004). Further, expressive language showed less richness and diversity of lexical items, with a tendency towards general rather than specific terms and greater use of fillers such as 'oh'

and 'mmm' (Coster et al. 1989). Important qualitative differences emerged, particularly in words used to convey the child's internal state (Beeghly and Cicchetti 1994). Maltreated toddlers used fewer internal state words overall, and employed a limited range of internal state words, a finding that may be related to the known social and emotional disruptions in the development of maltreated children. They applied internal state words to a reduced range of social agents and contexts, focusing mainly on the here-and-now (Beeghly and Cicchetti 1994). Moreover, analysis revealed that while the maltreated toddlers produced broadly expected levels of internal state words for 'task oriented' aspects such as volition, the paucity in their use was particularly marked for expression of physiological states (e.g. hungry), negative affect (e.g. worried) and moral obligation (e.g. related to permission).

These early studies revealed a promising seam of investigation at the interface of language, cognition and socioemotional development in this vulnerable group, via the innovative use of linguistic analyses and based on systematic observation. Regrettably, for at least the next decade the field failed to capitalize on these solid early foundations, turning instead to a reliance on somewhat restricted and repetitive research using standardized assessments. That research will be reviewed next, before considering promising new avenues for research.

Receptive vocabulary has been by far the most frequently studied aspect of language development in maltreated children (Sylvestre et al. 2016). On average, maltreated children as a group achieve standard scores seven points lower than their well-matched non-maltreated counterparts on standardized tests, where the mean is 100 and the standard deviation 15 (Lum et al. 2015). Caution is urged, however, in extrapolating to wider linguistic attainment from tests of this single component of language (Lum et al. 2015), particularly because receptive vocabulary tests are considered to have relatively low diagnostic accuracy for language problems (Spaulding et al. 2006). Broader receptive language has also been investigated reasonably frequently, yielding overall group averages for language comprehension eight points below controls (Lum et al. 2015). These findings are consistent with results of a meta-analytic review, which reported an effect size of $g = -.53$ for receptive language (Sylvestre et al. 2016).

Expressive language has been subject to less examination in robust research, with only 6 of the 26 studies included in the recent systematic review (Lum et al. 2015) focusing on this aspect. Two of the six studies reported specifically on expressive vocabulary, while the remaining four used more comprehensive measures of expressive language. Further investigation of this component is warranted, however, given the comparative magnitude of the impairments indicated: maltreated children scored 13 points lower than comparable peers in expressive language in the meta-analysis by Lum et al. (2015), while the meta-analytic effect size calculated for this aspect of linguistic functioning was $g = .67$ (Sylvestre et al. 2016)

A small but significant stream of recent research has returned once more to detailed linguistic analysis of samples gained in semi-naturalistic contexts. Knolle et al. (2018) report on data obtained from 32 well-matched child dyads aged 2 to 5 years (each consisting of one maltreated and one not) in peer play sessions facilitated by sensitive adults. Investigation of 'general language sophistication' via measures of vocabulary use, talkativeness and MLU yielded the unexpected finding of equal levels of language competence in maltreated and non-maltreated participants. Authors speculated that this finding might be explained in part by all participants' enrolment in a therapeutic childcare setting which, although not targeting language development per se, was intended to have beneficial effects on a wide range of developmental aspects. They further postulated that the presence of supportive adults rather than the children's parents might explain divergence from the results of previous studies. Nonetheless, this finding is contrary to expectations based on consensus from previous research, so further investigation, and specifically replication, would be in order.

Knolle et al. (2018) also add an interesting new conceptual dimension to study in this field. Research to date has had a deficit-based orientation, based on hypotheses of deficits or delays in language development associated with maltreatment status. Intriguingly, these authors propose a more nuanced consideration of *differences*, rather than deficits, in the language development of maltreated children. Specifically, they highlight their finding that children with prior exposure to maltreatment used twice as many grammatical negations as non-maltreated peers. This finding held true even for participants under the age of 3.5

years. An example of a grammatical negation used by one participant is “I don’t cry when I kick people” (Knolle et al. 2018, p. 454). The authors suggest that these constructions are highly complex in a grammatical sense, involving advanced language skills and representing one aspect of positive adaptation to developmentally adverse circumstances. Alternative explanations, for example that children are merely reflecting their disproportionate experience of parental negative language, are dismissed by these authors because no evidence of heightened negative parental language input to maltreated children currently supports this view. Instead, the researchers associate these language differences with a broader cognitive negativity bias thought to develop in maltreated children, where children’s developing language is central to how negatively they come to view the world and themselves as an agent within it. While interesting, and closely aligned with contemporary asset-based perspectives on children’s development, the results of this study are based on one group of children in one rather specialized therapeutic setting, so caution would need to be exercised in both the extrapolation and interpretation of findings, pending further research.

Results reviewed above have shown that there is broad consensus regarding an association between child maltreatment and structural language disruption, although this is not universally found in empirical studies. Further, important discrepancies between studies exist, depending on the aspect of language measured (for example, receptive or expressive; vocabulary or syntax); the way in which it is measured (standardized test versus linguistic analysis) and the context from which it is sampled (for example, interacting with parents, peers, known sensitive adults or unfamiliar assessors). We go on now to consider what is known about pragmatic language and social communication in maltreated children.

23.3.3 Pragmatic language and social communication in traumatized and maltreated children

The overall intention of this chapter, and of this section in particular, is to consider pragmatics in traumatized and maltreated children. Efforts to this end are somewhat thwarted in a landscape replete with imprecise, inconsistent, and improperly used terms. Linguists have long argued that the notion of pragmatic language has been erroneously conflated with aspects of conversation, and even widely misconstrued as co-terminus with

communication itself, to the detriment of both research and clinical practice (Cummings 2009). That criticism certainly applies within this field. The broader term 'social communication' is, therefore, used preferentially in this part of the chapter, with 'pragmatics', when used by authors or instruments, appearing in single quotation marks.

Clinical texts stress the impacts of maltreatment on social understanding and communication development (Hwa-Froelich 2015; Holosko 2015; Hyter 2007). A detailed and clinically-rich account of the complex and multi-faceted impact of trauma and maltreatment on communication is provided by Yehuda (2016). She focuses particularly on children's 'pragmatic skills', their narratives, and their ability to interpret ambiguous and symbolic meaning, all within the context of the relationship between those linguistic skills and wider cognitive capacities such as sequencing, cause-and effect and emotion regulation. Given the depth and breadth of clinical discussion on this topic, it is perhaps surprising, then, that in comparison to structural language, aspects of social communication and pragmatic language have been relatively neglected in terms of discrete empirical investigation.

The scope of the review and meta-analysis conducted by Sylvestre et al. (2016), mentioned above, was reported to include 'pragmatics'. Close examination of results indicates that these authors judged 16 of the 23 studies to report aspects they deemed relevant to 'pragmatics'. Importantly, the selected 16 studies are not listed discretely, and nor are there clearly defined criteria by which relevance to 'pragmatics' was judged, so the authors' claims in that respect cannot be independently verified. Nor is it possible to ascertain how many of these studies were among those acknowledged by the authors to have failed to report an effect size (N=9). Overall, reported effect sizes for 'pragmatics' ($g = -.48$) were broadly comparable with those of receptive and expressive language ($g = -.53$ and $g = -.67$ respectively), with 'pragmatics' yielding the smallest effect size. This surprising result may have arisen owing to the review's requirement that studies employ standardized measures (Sylvestre et al. 2016), since a wide range of analytical, observational and caregiver-report measures are often considered more fruitful in exploring pragmatic development (Adams 2015). The authors themselves attribute the unexpectedly small effect size for 'pragmatics' to the paucity of studies reporting exclusively on neglected children, for whom they

hypothesize a greater impact on 'pragmatic' development through a dearth of attuned parental interaction.

Particularly important when considering social communicative function is the environment in which children learn and develop their skills as reciprocal communicators. In this regard, a rich seam of investigation has considered differences in maltreating parents' communication during interactions with their children. To this end, Wilson et al. (2008) conducted a meta-analytic review of 33 observational studies comparing the communication of maltreating (physically abusive or neglectful) vs. non-maltreating parents. Notwithstanding the challenges across this body of evidence, including discrepancies, a host of moderating variables and the characteristic lack of statistical power, the report's authors did find that maltreating parents as a group demonstrate fewer positive communicative behaviors towards their children than comparison parents. Moreover, physically abusive parents were distinguishable by the presence of aversive behaviors whereas neglectful parents engaged in fewer attentive and responsive interactions with their offspring.

Within this context, it is interesting to note that the early work of Coster et al. (1989) and Beeghly and Cicchetti (1994), mentioned above, also gave intriguing insights into differences in communicative development of maltreated toddlers, even at the comparatively young age of 31 months on average. Maltreated preschoolers demonstrated a restricted repertoire of communicative functions, in that they were less likely than non-maltreated comparison children to describe their own experiences, and less likely to seek information from parents during interactions (Coster et al. 1989). Deficits relative to well-matched controls were evident also at discourse level, in maltreated children's ability to maintain connected 'conversation-related acts' during an interaction with an adult (Coster et al. 1989; Beeghly and Cicchetti 1994), as measured by Mean Length of Episode (MLE).

In 2010, publication of work by a Spanish research group marked a new stream of interest in social communicative functioning of children and young people relevant to the topic of this chapter, this time in residential care (Moreno et al. 2010). As part of a wider assessment of linguistic functioning, 'pragmatic' functioning of 74 individuals aged between 6 and 18 was assessed by means of a picture-based task. Participants were required to generate

statements that would be used by the characters depicted to serve a range of 13 communicative functions. Strikingly, none of the participants were found to be functioning at the level considered to reflect mastery of the requisite skill. Indeed, 87.8% were reported to be functioning at the lowest levels, with 'pragmatic' performance said to be indicative of 'emergency' or 'alarm'.

It should be noted that this study did not involve a comparison group of age and socio-economically matched non-maltreated children. Detail is lacking on important methodological concerns, such as reliability of the instrument. Arguably, the assessment task lacked validity, precision, and comprehensiveness as a sample of purportedly 'pragmatic' competence, testing, as it did in an abstract way, children's responses as to *what other people should say* in certain situations. Nonetheless, this study represented progress in its attempt to report data on some relevant components of social communicative competence in a key sub-population of the maltreated group, in which empirical investigation is challenging. In reporting universal impairment in the sampled population, much of it representing the most significant levels of challenge, this study makes a notable contribution.

In the UK, McCool and Stevens (2011) reported data on perceived communicative functioning of children and young people, also in residential care. Nineteen out of 30 participants showed indications of previously undetected speech, language, and communication impairments on the robustly validated caregiver-completed checklist, the Children's Communication Checklist-2 (CCC-2; Bishop 2003). Eight of the 19 youngsters who showed impairment had profiles indicative of primarily socio-pragmatic impairment, according to the instrument's originators, with 6 of the 8 at the more severe end of the scale. None of the sample had been referred to speech and language therapy.

Children in residential care, as in this study, represent a special sub-set of the maltreated population. The overwhelming majority of them have experienced multiple adversities, of which maltreatment is just one. They are more likely to be older and to have experienced multiple placements and multiple placement breakdowns (Lum et al. 2018). Furthermore, it has been suggested that in common with many assessments purportedly sampling

pragmatics, the instrument used in this study taps into a much broader range of communicative, conversational, and cognitive skills (Cummings 2009). As such, caution should be exercised in the interpretation of these findings. Nonetheless, the study adds to emerging evidence of substantial levels of social communicative impairment in a significant proportion of maltreated children.

Overall, research into social communicative and pragmatic functioning in maltreated children has not been as plentiful nor as comprehensive as investigation of structural language. The term 'pragmatics' has tended to be somewhat liberally applied, when actually exploring wider developmental areas such as social communication, social cognition and conversation. Research into pragmatics for this underserved group has also been beset by the challenges typically encountered for any other population in attempting to find reliable and valid means of measurement, as widely discussed elsewhere in this volume. Despite the gaps and inconsistencies across the body of evidence, there is some evidence from systematic review as well as empirical investigation to support widespread and in-depth clinical accounts, for some children, of significant and pervasive impacts of maltreatment on aspects relevant to socio-pragmatic development. With that in mind, we now turn our attention to the assessment of these aspects in this population.

23.4 Assessment of pragmatic language and social communication in traumatized and maltreated children

Firstly, it is important to note that there is an initial challenge for speech and language services in ensuring that children who are known to have been traumatized, abused, or neglected are even considered for referral to speech and language services (Frederico et al. 2018). Where maltreated children remain in the care of their parents, the children may not routinely be taken for developmental surveillance or screening appointments of the sort that lead to referral for communication evaluation (Hwa-Froelich 2015). When children are in out-of-home care, it has been shown that communication impairments often remain unsuspected by care-givers (McCool and Stevens 2011; Frederico et al. 2018). Furthermore, it has been found that referral may not occur even when impairments are suspected, presumably because other considerations are deemed to take priority (McCool and Stevens 2011). The chaotic or transient living circumstances of many maltreated children can mean

that even if referral is instigated, service policies dictating discharge for failure to attend, or on handling re-referral following discharge, may introduce delays and disruptions to care and preclude meaningful engagement (Byrne et al. 2018).

Frederico et al. (2018) attempted to develop a care-giver completed tool that would identify children in out-of-home care who would benefit from access to detailed speech and language evaluation and intervention. They found that non-clinicians were not able to identify suitable candidates for referral reliably – indeed, it was found that many children who would benefit from referral would be missed. Detailed analysis revealed that while overt speech and fluency concerns were more readily identified, impairments in more complex or subtle aspects such as pragmatic language and comprehension were more likely to be missed. Pending further refinement of such a tool, the authors recommend routine referral of all child protection clients for detailed specialist speech and language pathology evaluation.

For routinely referred children, one significant challenge in assessing pragmatic language may, in fact, be in identifying that the child has indeed been traumatized, abused, or neglected. By their very nature, trauma and maltreatment tend not to be readily disclosed nor openly discussed. It is, therefore, imperative that practitioners in general paediatric practice always remain alert to the possibility, and show vigilance. It is important to be aware that *any* child may potentially be at risk of having been exposed to trauma or maltreatment. Trauma-informed practice determines that speech and language professionals should always be alert to this possibility (Yehuda 2016).

There are some family circumstances where past or present exposure to trauma or maltreatment are more likely. For trauma, migrants, asylum-seeking families and those with refugee status are more likely to have been affected. For maltreatment, having parents who are living with poor mental health, addiction, and/ or domestic abuse (especially in combination) should result in heightened concern and vigilance. Equally, among children there are particular groups where there is greater risk of past or present trauma or maltreatment exposure: children with chronic illness, younger children, disabled children and those with limited verbal communication; children receiving child protection services,

whether at home or living in other circumstances (Yehuda 2016). Where trauma or maltreatment are known or found to have formed part of a child's lived experience, it should be remembered that the effects of trauma on the child's clinical presentation can last for many years beyond the original trauma source, such as in the case of adoption (Yehuda 2016).

The results of research by McDonald et al. (2013) provide some indications of how to differentiate children with primary developmental disabilities from children whose developmental delays are secondary to maltreatment. For the latter group, it is the presence of behaviours indicative of anxiety in addition to developmental delays that is said to mark out their history of maltreatment. Indicators of note are reported to be hypervigilance, startle responses (for example in response to sudden or loud noises), marked shyness, separation anxiety, and dissociative responses such as momentary 'blinking' or staring. Although helpful, these pointers do not take account of the fact that children with primary developmental disabilities are not mutually exclusive from maltreated children. In fact, disabled children are at significantly increased risk of maltreatment (Crowley 2016). Children whose developmental profiles include challenges with emotional regulation, such as children with autism or Attention Deficit Hyperactivity Disorder, are considered to be at increased risk not only from maltreatment but also from a lasting propensity to become overwhelmed in response, leading to complex clinical presentations (Yehuda 2016).

Several authors recommend the use of an ethnographic interview in case-history taking for traumatized or maltreated children (Hyter et al. 2001; Westby et al. 2003; Hwa-Froelich 2015). By this, they mean a process that considers multiple constructions of the child's reality, incorporating and respecting different perspectives and contextual influences. Yehuda (2016) details the areas a trauma-informed case history will explore, including questions about particular prenatal, postnatal, and developmental stressors, and experiences of disruptions, grief and loss. Helpfully, she lists specific additional questions that should be incorporated into case histories in the case of children living in out-of-home care or post-adoption.

There are practical implications for the clinician in aiming to meet such recommendations. Yehuda (2016) advocates open conversations about such topics, several of which it is noted should not be discussed in the presence of a child, and some of which can best be explored at different levels over time which may necessitate alterations in how service delivery is arranged. Probing into some of those areas will be unfamiliar territory for many speech and language practitioners, so it may offer reassurance to note that clear professional boundaries are recommended and that, when indicated, onward referral for specialist trauma assessment is expected (Yehuda 2016). She cautions that in cases of trauma and maltreatment case history information may be fragmented, reflecting the child's disrupted experience. This can prove detrimental to the process of assessment of pragmatic language and social communication, which often relies on care-giver completed checklists. Indeed, McCool and Stevens (2011) found that residential care workers were sometimes unable to complete the Children's Communication Checklist-2 (Bishop 2003) because the child had not been known to them for the required 4 months. Further, Yehuda (2016) describes how the child's lived experience of a lack of cohesion and coherence can be reflected in their communicative style. This compounds the clinical challenge of trying to determine the origins of current clinical manifestations.

For the assessment process itself, Hwa-Froelich (2015) recommends comprehensive assessment, including taking wide perspectives on development in pragmatic language and social communication, social-emotional aspects and different dimensions of cognition. Observations of play-based, interactive engagements with parents/ caregivers and siblings/ peers are advocated for young children. For school-aged children, Hwa-Froelich (2015) recommends gathering a spread of authentic indicators and measures of functional language and communication performance, including samples of spoken language and writing from school, and teacher observation. Teacher observation may be supported by the use of instruments such as the CCC-2, as mentioned above. Alternatives include the Observational Rating Scale component of the Clinical Evaluation of Language Fundamentals 5th Edition (CELF-5 UK; Semel et al. 2017) or the Metalinguistics Profile of the CELF-5 Metalinguistics (Wiig et al. 2014). However, as found by Frederico et al. (2018), caution must be exercised in relying on reports of non-specialists regarding pragmatic language skills in traumatized and maltreated children, as this area is particularly prone to misinterpretation.

Observation is often proposed, therefore, as a means of obtaining information about pragmatic performance of traumatized and maltreated children in everyday contexts. Using observation to sample pragmatic and social communication skill for any child, however, is fraught with challenge to minimize and account for sampling error and bias (Cummings 2009). For the traumatized and maltreated child, the challenge is compounded by a key consequence of their disrupted developmental pathway, and that is variability in how they function. Yehuda (2016) stresses how assessment of traumatized children can be particularly challenging because of marked and often unpredictable inconsistencies, from one occasion to another or indeed from one moment to another. She highlights not only that traumatized and maltreated children have overall raised stress levels, but that all manner of seemingly innocuous stimuli in the observational or test situation may trigger trauma reactions which impact on performance. Moreover, trauma reactions can vary a great deal, ranging from withdrawal, through dissociation, to hyperarousal. For the trauma-informed clinician, dynamic and sensitive observation involves careful noting of the antecedents of such reactions, the behaviours themselves, and the child's response to support.

Formal assessment of pragmatic and social communication functioning may be particularly vulnerable to the 'flight/ fight/ freeze' effects of triggered trauma reactions. Such assessments often present 'staged' situations involving ambiguity, humour, sarcasm, or dissonance. These experiences in particular can trigger the child to re-experience trauma-related emotions. In the past, the child may have had to contend with overwhelming ambiguity and dissonance, particularly when experiencing inconsistent maltreatment from an otherwise needed, loved, or trusted person. Being caught up in a cascade of intense emotion, being intensely vigilant to perceived threats, or indeed being 'shut down', all these responses will lessen the child's chances of attending to subtle social signals and processing ambiguous or contradictory communicative cues in the assessment of pragmatics. Traumatized and maltreated children, therefore, may exhibit heightened sensitivity to testing. Flexibility may need to be exercised in how the assessment process proceeds, including the decision to avoid or alter test items or procedures likely to trigger responses in

the individual, even if this invalidates the instrument's administration and means it cannot be interpreted via standard scores (Yehuda 2016).

Traumatized and maltreated children are likely to be already primed for negative responses in test conditions. Paradoxically, while they may crave praise, they may have hostile reactions when it is provided (Yehuda 2016). They can have heightened reactions to perceived difficulty or failure. Any perception of confusion, disorientation, or failure during assessment of pragmatic language or social communication may prompt additional distress and anxiety, further impeding test performance. So, while there is general critique of standardized tests purportedly assessing pragmatic language (Cummings 2009), there are additional reasons to question the validity of such instruments for use with traumatized or maltreated children. Such children are prone to significant fluctuations in their performance, which can be precipitated by anxieties provoked by the test situation and the 'pragmatic' stimuli involved.

As noted above, an ethnographic approach to case history taking is widely recommended for this population (Hyter et al. 2001; Westby et al. 2003; Hwa-Froelich 2015). It has been argued in this section that traditional approaches to assessing pragmatic language and social communication via checklists, observations and tests – already recognized as generally flawed – are especially limited in the case of traumatized and maltreated children. For this reason, it is suggested here that the ethnographic approach has merit beyond the case history, lasting throughout the ongoing process of assessment and intervention.

Recommended methods include naturalistic observation and narrative description of observed events, leading to rich and nuanced interpretations. For speech and language practitioners aware of the challenges and complexities of deriving a valid appraisal of pragmatic language (Cummings 2009), the adoption of a truly ethnographic approach will be welcome. Such an approach brings opportunities for detailed and systematic consideration of contextual influences on traumatized and maltreated children's pragmatic functioning in dynamic reciprocal interactions, with a range of their typical communication partners, across a representative range of ecologically valid settings and situations. Such an approach invites the use of time-consuming but potentially productive techniques such as conversation analysis and discourse analysis.

Having examined special issues in the assessment of pragmatic language and social communication in traumatized and maltreated children, we turn in the next section to consideration of recommendations for intervention.

23.5 Intervention for pragmatic language and social communication in traumatized and maltreated children

There is, unfortunately, a significant gap in the literature with regard to empirical intervention studies of specialized communication interventions for traumatized, abused, or neglected children. In fact, a recent systematic review by Byrne (2017) found no original research studies from the past two decades reporting effects of direct speech and language pathology intervention for children in out-of-home care. The author concluded that there is currently no reliable evidence base on which practitioners can base decisions about management options or treatment methods.

There are complex reasons for the dearth in intervention research within this population. The transience of the population can disrupt engagement with services (McCool and Stevens 2011), a problem compounded by inflexible discharge and re-referral policies in services (Byrne and Lyddiard 2013). Conducting research in this area is fraught with methodological challenges, such as how to control for variables such as socio-economic status and differences in children's experiences (Lum et al. 2015), and ethical issues, for example the matter of who provides consent and/ or assent for participation (McCool and Stevens 2011) and the extent to which case-study data has to be homogenized to protect anonymity (Byrne et al. 2018).

Published work on intervention, therefore, is largely at the descriptive level. Yehuda (2005) gave rich clinical accounts of three cases from her work with traumatized and dissociated children in an inner city elementary public school. This was followed up in her book (Yehuda 2016) with extensive clinical examples and detailed principles of intervention in the context of childhood trauma and adversity. Likewise, Hwa-Froelich (2015) outlines useful general guiding principles and suggestions for social communication intervention for children exposed to maltreatment. Byrne and colleagues (2018) set out to describe the case studies

of eight children in out-of-home care accessing speech and language services, using a retrospective case note review design. Restrictions in reporting permissions limited the richness of detail regarding individual cases. Nonetheless, the authors extracted relevant themes at the level of service delivery, thereby making an original, if still anecdotal, contribution to the nascent literature. Meanwhile, Moreno and colleagues took a different approach, describing instead the design of an intervention focusing on language and pragmatics for children in residential care (Moreno et al. 2011) and reporting on its outcomes (Moreno et al. 2012).

Taken together, these accounts highlight potential intervention targets for speech and language practitioners with this population. These include the language of body states and emotions, listening and conversation skills, linguistic structures to support narrative, knowledge of cause and effect, and finally, sequencing (Yehuda 2005, 2016). Yehuda gives suggestions for recognizing and responding to moments when children become triggered by reminders of trauma, and consequently become activated or dissociated. She describes specific techniques, known as grounding, in which the therapist helps re-orient the child to the present, and reassures them of their safety and security within the therapy environment. In a similar vein, Byrne et al. (2018) advise special awareness of startle and alarm responses to seemingly innocuous sensory stimuli such as environmental noise. Overall, the play and language stimulation techniques they suggest are reassuringly familiar to any speech and language practitioner familiar with young children, with modelling and expansion playing a central role.

For individual young children exposed to maltreatment, a social-pragmatic developmental play-based approach to therapy is advocated (Hwa-Froelich 2015). Caregiver-mediated approaches designed originally for young children with autism are recommended by this author, for their emphasis on relationship-based intervention, targeting aspects such as joint attention, emotion regulation and intersubjectivity. It is further suggested that adaptations can be made in order to tailor such approaches for older children who have been maltreated. It follows that interventions designed for children with primary pragmatic impairments, such as the individually-delivered Social Communication Intervention Project (SCIP; Adams 2015), are similarly likely to offer useful frameworks.

Moreno et al. (2011) take a different approach, outlining a group intervention designed for children aged 5 to 12 years who have been exposed to abuse and are currently in residential care. The model proposed is for weekly 2-hour sessions, focusing on morphology, syntax, semantics, and pragmatics, as well as wider cognitive and affective areas considered by the authors to be of relevance. The aim is for goals to be functional and therapy to be interactive. Collaboration with children's parents and school staff is considered key. The intention is that each child will have individually selected targets within the intervention, although the challenges in achieving that are acknowledged as a limitation.

Outcome data from this Spanish research group appear in a related paper (Moreno et al. 2012). It is not clear why this study was not included in Byrne's (2017) systematic review, as it seems to meet the criteria of reporting on the outcomes of speech and language pathology intervention for this client group. Participants were 21 children (notably, 7 male and 14 female) in residential care. Important differences exist compared to the intervention originally described in Moreno et al. (2011), in that the intervention had a much more central focus on socio-pragmatic functioning, it ran for 25 sessions rather than 20, and children in the intervention study represent a sub-set of the original intended age range (8 to 12 years). The primary outcome measure is a picture-based task in which the child is expected to put themselves in the situation of a character and suggest what they would say in pursuit of particular communicative ends.

Caution should be exercised in interpreting the results of this study, given the involvement of the research group in the design of this instrument and in its limited usefulness as a 'pure' measure of the child's linguistic pragmatic functioning since cognitive skills such as theory of mind are required to perform well (Cummings 2009). Additionally, there is significant risk of bias from several sources including the lack of a control group and non-blinding of assessors. Nonetheless, this study appears to be the only one of its kind reporting original data on intervention for maltreated children. Moreover, the intervention focuses primarily on areas of communication and pragmatics, so its report of significant progress for all child participants appears promising.

Direct work with traumatized and maltreated children is only one management option available to speech and language professionals. Advising and consulting with others, such as case workers, is advocated by Byrne et al. (2018). Facilitative roles are recommended, such as equipping foster carers and residential care workers with the skills to promote language and communication development (Vasileva and Petermann 2018; Byrne et al. 2018). Direct approaches to upskilling and empowering foster carers and others are possible, potentially with the incorporation of video feedback techniques and group social support common to many parent-mediated approaches to language development. Equally, innovative use of digital and online technologies would seem to offer intriguing possibilities, with demonstrated appeal to busy foster carers seeking easy access to guidance on language development in particular (Golding et al. 2011). Flexibility and accessibility may be particularly important here, where primary concerns for child safety and permanency of placement often, not unreasonably, take precedence over engagement with speech and language services (Chambers et al. 2010; Sylvestre et al. 2016).

This section has shown that there is almost no empirical evidence base to guide decision-making around pragmatic language intervention for traumatized and maltreated children, although there are detailed clinical accounts and useful recommendations. Future research should seek to establish the comparative appeal, effectiveness, and efficiency of different models of direct and indirect speech and language therapy intervention. The final section of this chapter now seeks to draw together suggestions for clearer understanding and investigation of pragmatic language in this population.

23.6 Future directions: towards a greater understanding of pragmatic language in traumatized and maltreated children

This chapter set out to explore pragmatics in an important but underserved population, namely, traumatized and maltreated children. This effort was hampered by basic definitional inconsistencies, both in relation to childhood adversity and in relation to pragmatic language. It was further impeded by notable gaps in the literature concerning both the nature of pragmatic functioning in this population and in the evidence base for intervention. In this final section, we examine potential ways to develop a more nuanced understanding of pragmatics as applied to this complex population.

Terminology within the wider clinical pragmatic arena is contested and in flux. The term 'Pragmatic Language Impairment' (PLI) evolved relatively recently out of a landscape that has historically lacked agreement (Ketelaars et al. 2017). As such, its definition remains unclear, and consensus regarding its underlying mechanisms remains elusive (Ketelaars et al. 2017). Attempts over the past decade to coalesce professional opinion in related areas around an agreed nosology have provoked intense debate (Norbury 2014) about relationships between, on the one hand, Developmental Language Disorder (DLD) and, on the other hand, Autism. As explained by Adams (2015), for some theorists PLI is considered to lie at an intermediate point between DLD and Autism, whereas for others it represents a complex co-existing condition. Moreover, there is discord (Brukner-Wertman et al. 2016) over newer categorical conceptualizations such as Social (Pragmatic) Communication Disorder (SPCD). It remains to be seen what the field will make of terms such as the proposed 'DLD with impairment of mainly pragmatic language' within the International Classification of Diseases 11 (World Health Organisation 2018). The relevance of such terms to the patterns of social communicative difference associated with maltreated children is as yet unclear.

As a further challenge, important questions remain about the origins, nature, and course of pragmatic difference in the maltreated population (McCool and Stevens 2011). Can we assume, for instance, that atypical pragmatic development can be regarded in the same way when it arises primarily from disrupted socio-developmental relationships and contexts rather than from neurogenetic differences within the child? Are such assumptions supportable, given that disruptions occur at such an early stage in development as to invoke similar atypical patterns in development? Or should such assumptions be avoided, because enhancing the maltreated child's socio-developmental inputs *could* substantially alter their pragmatic developmental trajectory? This is especially important given the significant upward trend towards children being removed from homes in which abuse or neglect has occurred (Byrne et al. 2018).

Illuminating in this respect is recent research by Lum et al. (2018) in Australia. Consistent with previous research, these investigators found that while, as a group, maltreated children

performed below developmental expectations on standardized measures of language and social skills, significant variability was evident for both domains. Some of the children performed within the expected range for their age, indeed some performed at the highest possible levels (+3 standard deviations). The researchers set out to investigate which of a range of variables might account for this variation. Like previous researchers, they were interested in maltreatment history (type and child's age when experienced) but, adding a novel perspective, they also examined the influence of different aspects of the children's current living arrangements (all were residing in out-of-home-care, for example in kinship care, foster care or group homes).

Intriguingly, different patterns were found for language skills as opposed to social skills. For language, maltreatment history was found not to be an influence on the child's current level of functioning but instead the educational level of the current care-giver was related. The converse was true for social skills. Here, maltreatment history had a bearing on current functioning but not out-of-home setting characteristics. Specifically, for social skills, but not for language, a history of neglect was associated with current performance. Children thus affected did not show *more problem behaviors* compared to maltreated children overall. Rather, they were distinguishable by a *lack of prosocial behaviors*. The authors concluded that while language might be amenable to facilitation simply through placement with appropriate care-givers (and that training could assist care-givers in learning language-enrichment techniques where necessary) social skills, however, might require more in the way of targeted intervention to improve. The study offers enticing new insights, but since it was a cross-sectional study of only 82 children, replication and extension are necessary before firm conclusions can be drawn.

Although preliminary in nature, this study lends support to an ecological orientation to the development of language, pragmatics, and social communication skills in traumatized and maltreated children. Eschewing an impairment-based, child-focused model in favour of a bio-social-ecological approach as suggested by Ungar et al. (2013), we can begin to situate the child's pragmatic development within a complex multi-layered set of experiences and influences, many of which are extrinsic to the child. The challenge for the future is how best to understand the socio-pragmatic development of individuals who may have encountered

complex and unique patterns of intergenerational, genetic, and epigenetic influences; prenatal exposures to stress hormones and/or potentially neuro-teratogenic toxins; interpersonal relationships affected by trauma, abuse and/ or neglect; together with family and/or community contexts characterized by disadvantage, disruption and/ or stigma. Additional group studies of intra-child impairment on standardized assessments are unlikely to be particularly illuminating, whereas discourse-based, ecological approaches may well prove more so.

Furthermore, findings of differential post-maltreatment environmental impacts on language and social skills (Lum et al. 2018) shed light on a further critical area for future clarification: the delineation between structural language, pragmatic language and social communication. Norbury (2014) argues for a move towards precisely this dissociation. Moreover, she cites new thinking that pragmatic language is significantly underpinned by both structural language skills and social cognitive competence, highlighting the inter-relatedness of these areas. With regard to social cognition for traumatized and maltreated children, it is important to note the mounting evidence of significantly compromised emotional regulation and executive functioning in this underserved population (Ford and Greene 2017). With this in mind, it is interesting that in the above study by Lum et al. (2018), the key social skills found to be lacking in the maltreated sample were described as “prosocial communication, cooperation, assertiveness, responsibility, empathy, engagement and self-control” (pp. 167). Social communication is undoubtedly an important part of this profile, but nonetheless only a part, with social cognition also a key component. Future research, therefore, needs to be much clearer not only about maltreatment and subsequent history, but also about precisely the developmental skill or skills being investigated.

23.7 Summary

This chapter adopted a dichotomous framework whereby serious childhood adversities can be classified as those exposing the child to threat and those involving deprivation of expectable inputs. Both can lead to calamitous, lifelong consequences on physical and mental health and on educational, vocational and social outcomes. A substantial body of research has demonstrated clear associations between early exposure to trauma and maltreatment and developmental language disruptions. There is evidence of significant and

pervasive potential effects on structural language, pragmatic language, and social communication as well as important related areas such as attachment, executive functioning and, increasingly, social cognition. This chapter reviewed specific challenges in clinical assessment and intervention of pragmatic language and social communication for this population, such as unpredictable and variable responses. Indeed, trauma responses such as dissociation can be unwittingly triggered by the staged pragmatic 'disruption' often employed as a therapeutic device in clinical settings. Additional or alternative assessment was proposed, in the form of naturalistic sampling, conversation analysis, and discourse analysis. Likewise, recommendations were made for an ecological approach to intervention, with an emphasis on facilitating functional reciprocal language and communication in the context of relationships. Resilience is construed at the levels of child, family, community, and society. Pragmatic language competence, it is argued here, should be understood and promoted in the same way.

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BIOGRAPHY

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