

Review Article

Speech-Language Pathology and the Youth Offender: Epidemiological Overview and Roadmap for Future Speech-Language Pathology Research and Scope of Practice

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Purpose: This article is concerned with the growing body of international evidence indicating that adolescents in contact with the youth justice system are likely to have severely compromised oral language skills, receptively and expressively. A smaller, but persuasive, literature also points to poor literacy skills in this population. Language and literacy skills underpin academic, social, and vocational success (C. Snow, 1983; P. C. Snow, 2016; Snowling & Hulme, 2012) and are central to the professional expertise of speech-language pathology as a profession (P. C. Snow, 2016).

Method: In this article, I review the epidemiology of youth offending together with research evidence concerning the language and literacy skills of this population. I outline the major practice and research implications of these findings for speech-language pathology as a profession, considering

the “school-to-prison pipeline” via key domains of early years’ reading instruction, young people’s passage through the justice system, restorative justice processes, and design and delivery of language and literacy interventions for young people on youth justice orders.

Results: Implications for speech-language pathology scope of practice and future research are outlined.

Conclusions: Speech-language pathology as a profession has a significant role to play in advocating for vulnerable young people at each point in the school-to-prison pipeline. This includes strengthening the evidence base concerning speech-language pathology language and literacy interventions and lobbying governments to fund speech-language pathology services to address the complex communication needs of this population, both on community-based and custodial orders.

There is now a convincing body of international evidence highlighting the language and literacy vulnerabilities of adolescents (most notably male adolescents) in contact with the youth justice system (see Anderson, Hawes, & Snow, 2016, for a review). Such difficulties are perhaps not unexpected when considered alongside the complex biopsychosocial risks faced by this population. What is somewhat surprising, however, is the relative neglect of the communication needs of youth offenders by speech-language pathology as a profession until recent times. In this article, I argue that the strength and

consistency of the research regarding the language and literacy difficulties faced by young offenders need to be harnessed to advocate for speech-language pathology services in community-based and custodial settings and to generate a strong research agenda to develop evidence-based interventions to support and strengthen such services. In order to be effective and influential regarding the needs of youth offenders, however, speech-language pathologists (SLPs) need to be well informed about the epidemiology of youth offending, its risk factors and comorbidities, and emerging evidence concerning the communication needs of such young people and how these should be met.

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Language Disorder Terminology

There has been a recent international consensus project concerning the need for standardized terminology when referring to children and adolescents with disordered language skills (Bishop, Snowling, Thompson, Greenhalgh, & the CATALISE Consortium, 2017). In line with the consensus achieved by Bishop and coworkers, I will use the term

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developmental language disorder (DLD) in this article when describing patterns of compromised language skills in youth offender samples. The use of the descriptor “developmental” should not suggest that receptive and/or expressive language difficulties that are evident in childhood will naturally resolve with maturation; in fact, evidence from longitudinal studies suggests otherwise (see Beitchman & Brownlie, 2014, for a review). The descriptor “developmental” for use with adolescents and young adults in the youth justice system also accords with the fact that the final stages of prefrontal cortex maturation occur well into the 20s (Tamnes et al., 2017), and so this population should be considered as a “work in progress” from a neurodevelopmental perspective. In time, it may be considered more appropriate to use the descriptor “language disorder” for this population, however, it is too soon to determine the extent to which language disorders are comorbid with and/or accounted for by other conditions in youth offenders.

What Is Meant by the Term “Youth Offender”?

Perusal of the literature on this topic reveals a wide-ranging terminology, spanning *juvenile delinquent*, *juvenile offender*, *young offender*, and *youth offender*. In this article, the term *youth offender* will be preferred, as this is seen as the least encumbered by the possible connotations of victim blaming and social judgments of reduced worth associated with terms such as *delinquent*.

It is a requirement of Article 40 of the United Nations Convention on the Rights of the Child (UNCRC, 1989)¹ that signatory states set a minimum age below which children shall be presumed to be incapable of breaking the law. However, there are important differences internationally (and in some cases intranationally) with respect to the age at which criminal culpability is set. In the United States, 33 states have no set minimum age, and those that do, have ages ranging between 7 and 10 years (Child Rights International Network, 2017). In England, Wales, Northern Ireland, Australia, and New Zealand, children under the age of 10 years cannot be held criminally responsible for an offense, whereas in European Union nations, the minimum age of criminal culpability varies between 8 (Scotland) and 16 years, with Scandinavian countries being at the higher end. Some western jurisdictions (e.g., Australia) employ the legally contestable descriptor *doli incapax* (a Latin term literally meaning “incapable of evil” but commonly understood as “incapable of crime”) for children aged up to 14 years. This means that courts must take into account individual maturity and comprehension of the seriousness of an offense in determining whether a minor between the ages of 10 and 14 years will stand trial (Freckleton, 2017).

¹It is noted that all UN member nations, including the United States, have signed the Convention on the Rights of the Child; however, the United States is the only member state to have not ratified the Convention. Reasons for this include concerns that ratification would undermine U.S. government sovereignty and parental authority (The Economist, 2013).

There are also international variations as to what constitutes a youth offender, as opposed to an adult offender. As of 2018, all Australian states and territories regard a youth offender as someone aged under 18 years, and the state of Victoria is the only jurisdiction in that country (and one of very few internationally) to operate a “dual-track” system for young people aged 17–20 years at the time of appearing in court (Sentencing Advisory Council, 2017). This system mandates that when imposing a custodial sentence, the presiding judge or magistrate must endeavor, depending on the severity and pattern of the young person’s offending, to sentence the young person to serve his or her sentence in a youth detention facility rather than an adult prison. The rationale behind this form of therapeutic jurisprudence is that 17- to 20-year-olds still have immature prefrontal cortices, those brain regions most associated with higher order executive functions such as planning, organization, impulse control, emotional self-regulation, and perspective taking (Hsu, Novick, & Jaeggi, 2014). It is further considered that preventing (or at least delaying) young people’s contact with adult criminals is beneficial to their chances of successful (re)habilitation with respect to prosocial attitudes, behaviors, and skill acquisition (Sentencing Advisory Council, 2017). It is for this reason that some of the Australian research on DLD in young offenders includes participants who, in other jurisdictions, would be classified as adults (P. C. Snow & Powell, 2011; P. C. Snow, Woodward, Mathis, & Powell, 2015). This closely aligns with the World Health Organization’s definition of an adolescent as a person aged 10–19 years inclusive (World Health Organization, 2017) and a recent call to have adolescence redefined as the period from ages 10 to 24 years (Sawyer, Azzopardi, Wickremarathne, & Patton, 2018).

The principle that minors should be treated differently from adults before the law is also observed in the United States, with the website of the National Council of Juvenile and Family Court Judges (n.d.) stating that:

Juvenile offenders are seen differently by the courts and therefore require a different court process than their adult counterparts. Juveniles do not go to trial, they are adjudicated; they are not charged with crimes, they are charged with offenses; and they are not sentenced, they receive a disposition. Court processes for juveniles require more than superficial modifications to the adult justice system.

It must be noted, however, that these legal distinctions (e.g., between trial and adjudication, and between offenses and crimes) are not necessarily borne out in other jurisdictions, making international comparisons difficult. That said, there is broad recognition of key provisions of the UNCRC (1989), which, in Article 37, holds that detention is an option of last resort and children should not be subjected to “inhuman or degrading treatment or punishment” (including capital punishment and life imprisonment). In most first-world countries, there is at least policy-level acknowledgement that youth offenders require a different response, because of their developmental vulnerability, to

adult offenders. Such responses in Australia and New Zealand include a diversion away from custodial sentences via formal cautions and restorative justice conferences (Australian Institute of Criminology, 2015), known as Family Group Conferences in New Zealand (Ministry for Vulnerable Children, 2018), as discussed further below.

The Epidemiology of Youth Offending: An Overview

Rates of Incarceration of Young People

Because of policy variations with respect to the use of punishment versus diversion in response to youth offending, there are wide differences internationally in reported rates of youth incarceration. Furthermore, it is difficult to make direct international comparisons on incarceration rates because of different definitions of what constitutes a youth offender with respect to age and differences with regard to how these data are collected and managed by different governments. In the United States, 1.6% of 18- to 19-year-olds and 3.1% of 20- to 24-year-olds spent time in prison in 2010. In Australia, in 2014–2015, this ranged between 0.09% and 0.24% of young people (Sentencing Advisory Council, 2016). In New Zealand, 3.3% of the total prison population in 2017 was aged under 18 years (Department of Corrections, 2017). In England and Wales in 2016, adults accounted for around 95% of prisoners, 18- to 20-year-olds accounted for 4.4%, and 15- to 17-year-olds accounted for around 0.6% (Allen & Watson, 2017).

Gender

The overwhelming majority (about three quarters) of young people who come into contact with police and the court system as suspects and/or convicted offenders are male youth, and this is the case in all major English-speaking jurisdictions, for example, the United States (Hockenberry & Puzanchera, 2015), the United Kingdom (Youth Justice Board, 2014), Australia (Australian Institute of Health and Welfare [AIHW], 2017), Canada (Munch, 2012), and New Zealand (Ministry of Justice, 2010). Where female adolescents are incarcerated, they typically display some, but not all, of the biopsychosocial risks associated with offending in male youth. Most notably, however, they are likely to be younger than young male offenders, to have experienced sexual abuse, and to have grown up in chaotic, violent households (Baglivio et al., 2014), for which a welfare response is arguably more appropriate than a youth justice one (Sherman & Balck, 2015). Peer rejection and self-harming behavior are overrepresented in the backgrounds of female youth offenders (Shepherd, Luebbers, & Dolan, 2013), whereas male offenders are more likely than female offenders to have witnessed physical violence (Baglivio et al., 2014). In general, the crimes female offenders commit are less serious than those committed by their male counterparts (Wong, Slotboom, & Bijleveld, 2010), but there is evidence that the proportion of female youth

offenders is increasing over time in some English-speaking nations, such as the United States (Sherman & Balck, 2015) and Australia (AIHW, 2012), though not in England and Wales (Ministry of Justice, 2017a, 2017b).

Socioeconomic Status

Young people in the youth justice system overwhelmingly come from what have been described as “crime-prone communities” (Weatherburn, 2011), which are also typically socially and economically disadvantaged compared with other communities, a phenomenon that is borne out across jurisdictions, for example, in the United States (Office of Juvenile Justice and Delinquency Prevention (2015), Australia (AIHW, 2017), and the United Kingdom (Stephenson, 2007). The socioeconomic status (SES) of families and communities is typically considered predominantly in relation to parental education and economic indicators, such as family income, which may be the most reliable indicator of health status (Duncan, Daly, McDonough, & Williams, 2002).

Willingham (2012) emphasized the importance of human capital and social capital, alongside economic capital for families, where *human capital* refers to “skills or knowledge of individuals, usually based on their education and experience” and *social capital* describes “beneficial connections in social networks, such as ties to people with financial or human capital” (Willingham, 2012, p. 34). Obviously, assets such as these have both a genetic and environmental component and reflect multifaceted biopsychosocial determinants of health and well-being. As such, they are interrelated, and it can be difficult in the complex ecology of human communities to disaggregate the impact of genetic endowment, physical and social environment, parental values and life experiences, ethnicity, and economic well-being on SES. What we can say with certainty, however, is that young people in youth justice systems around the world are characterized by disproportionate levels of psychosocial and economic disadvantage and markers of risk for adverse life outcomes.

Ethnicity and Language Background

There are important and consistent differences in youth incarceration rates as a function of ethnic background. In the United States, in 2015, for example, the ratio of detention rates for people from racial minorities to those for Caucasians was 3.2 to 1, and in 22 states, this ratio was more than 4 to 1 (Office of Juvenile Justice and Delinquency Prevention, 2015). Similar patterns are evident in Australia, where Indigenous (First Nation) peoples make up some 2% of the population but account for approximately 38% of youth justice statistics (AIHW, 2017). In England and Wales, in 2016, young people from Black American or Minority Ethnic backgrounds accounted for 41% of the under-18 custodial population (Ministry of Justice, 2017b), while accounting for only 14% of the population (The Lammy Review, 2017).

In addition to the obvious social and political inequities lying behind these statistics, the overrepresentation, in English-speaking countries, of young people from non-English-speaking backgrounds has important implications for the speech-language pathology profession, at practice, policy, and research levels. Although some researchers (e.g., P. C. Snow & Powell, 2008, 2011; P. C. Snow, Woodward, et al., 2015) have sought to control English language status as a variable in this field of research, little is known about the performance on standardized language measures of such groups who share low SES and non-English-speaking backgrounds. The overrepresentation of young people from Indigenous backgrounds is particularly challenging for speech-language pathology, as such groups may speak rule-governed dialectal versions of (for example) Standard American or Australian English but produce responses on standardized measures that do not conform to the dominant language usage patterns. Language form and use that is sociolinguistically “different” is not necessarily “deficient,” yet it may be judged as such by clinicians who are unfamiliar with its phonology, morphosyntax, and pragmatic conventions. Notwithstanding this important point, however, it must be noted that academic curricula are typically transacted via dominant, mainstream, and middle-class language code and its conventions, and it is enormously helpful for children to have been immersed in this code from their preschool years if they are to succeed academically. This thinking has been expounded by Bernstein (1964) in his theory of restricted and elaborated code and by Payne (2005) in her discussion of language use and poverty.

Patterns of Youth Offending

Over the life course, adolescence is the peak period for criminal behavior, with most people “growing out” of crime in early adulthood (Richards, 2011). It is important to consider, however, ways in which youth offending differs from that of adults and the existence of different subgroups of youth offenders, as posited by Moffitt’s (1993) enduring dual taxonomy theory. Moffitt identified the existence of two distinct subtypes of antisocial behavior in the adolescent years: the adolescence limited and the life course persistent. Adolescence-limited offenders are greater in number and, as the name suggests, display antisocial behavior and criminal offending that emerge in the teenage years when otherwise developmentally healthy and typical teenagers succumb to a “maturity gap” (Moffitt, 2006). This makes these young people prematurely seek what they see as the privileges of adulthood, resulting in dysfunctional demonstrations of autonomy from parents and affiliation with similarly minded peers. Life course-persistent offenders, on the other hand, are typically “high risk” from early childhood because of an interaction of biopsychosocial vulnerabilities, resulting in cognitive and temperamental difficulties that work against exposure to prosocial learning opportunities (Moffitt, 2006) and lead to persisting patterns of antisocial behavior.

This thinking about subgroups of youth offenders and youth offending trajectories has informed both cross-sectional and longitudinal research in the past two decades, and further refinements have been offered by international research teams. In Australia, for example, a recent study (Crime Statistics Agency, 2016) identified four trajectory groups of youth offenders: “low,” “adolescent limited,” “late developing,” and “high,” with the great majority falling into the low group. Risk factors for inclusion in one of the three higher rate trajectory groups included being male, identifying as Indigenous, and living in one of the most socioeconomically disadvantaged areas early in their offending period.

Although young people account for the bulk of criminal activity, their offending is, on the whole, less serious in nature than that of adults (Richards, 2011). Youths are more likely to commit offenses against property (e.g., graffiti, vandalism, shoplifting, and public transport fare evasion) than against people and also to fall foul of the law as a result of status offenses, that is, acts that are illegal purely by virtue of the young person’s status as a minor, such as underage drinking or truancy (Richards, 2011). That said, a small but significant proportion of youth offenders do commit violent offenses such as assault, rape, and murder, and these have been represented in some of the recent studies examining language skills in this population (e.g., P. C. Snow & Powell, 2011; P. C. Snow, Woodward, et al., 2015), with significant findings for speech-language pathology as outlined below. It is also important to note that vulnerable young people appear before the law not only as suspects but also as witnesses and victims of crime (Natale, 2010; Richards, 2011), often reflecting the chaotic and unsafe circumstances in which they are living.

International Evidence on the Nature and Prevalence of DLD in Youth Offenders

As outlined in a recent systematic review by Anderson et al. (2016), a number of studies in English-speaking countries over the last two decades have pointed to rates of DLD in youth offenders that are well in excess of those reported in community samples of children and adolescents, which typically suggest DLD rates ranging between approximately 7% (Tomblin et al., 1997) and 12% (McLeod & McKinnon, 2007). It must be stressed that, although the vast majority of children and adolescents with DLD do not engage in criminal activity, DLD is significantly over-represented in youth justice populations. However, recent research also suggests that early speech-language pathology services for children identified as having DLD may reduce their contact with police in adolescence and early adulthood (Winstanley, Webb, & Conti-Ramsden (2018).

In the United States, research on the language skills of youth offenders has been conducted by Sanger and coworkers (Sanger, Creswell, Dworak, & Schultz, 2000; Sanger, Hux, & Belau, 1997; Sanger, Moore-Brown, Magnuson, & Svoboda, 2001) and Blanton and Dagenais

(2007). In the United Kingdom, research has been conducted by Bryan and coworkers (Bryan, 2004; Bryan, Freer, & Furlong, 2007); Hopkins, Clegg, and Stackhouse (2017); Hughes, Williams, Chitsabesan, Davies, and Mounce (2012); Hughes et al. (2017); and Winstanley et al. (2018). In Australia, research has been conducted by Snow and coworkers (P. C. Snow & Powell, 2004, 2005, 2008, 2011; P. C. Snow, Woodward, et al., 2015). In New Zealand, research has been conducted by Lount, Purdy, and Hand (2017). In Sweden, research has been conducted by Mouridsen and Hauschild (2009). Between them, these workers have examined a wide variety of language subskills, spanning expressive and receptive vocabulary, syntactic complexity, understanding and using figurative language, pragmatic language skills, and connected discourse, such as narrative and expository genres, using a variety of standardized and nonstandardized measures and checklists. Although differences in key methodological features (e.g., age, gender mix, selection criteria, community vs. custodial samples, standardized language assessment tools employed, clinical cutoffs used, and comorbidities measured) make direct comparisons across studies difficult, it can be concluded that rates of compromised language skills (if not frank DLD) in the youth justice population far exceed those found in community samples. Rates of identification of DLD range from around 19% in U.S. research (Sanger et al., 2001) to over 60% (Bryan, 2004) in U.K. studies, with Australian research estimating rates between 38% (P. C. Snow, Woodward, et al., 2015) and 52% (P. C. Snow & Powell, 2011).

Research that specifically controls for SES in this field is limited; however, the evidence that does exist suggests that it is not a sole explanatory factor for the language profiles of youth offenders (P. C. Snow & Powell, 2008). SES has an important and particular significance in relation to youth offenders for speech-language pathology as a profession, as it has a strong association with language status in childhood and adolescence, notwithstanding the fact that this is also believed to have a genetic component (Bergen, Zuijen, Bishop, & Jong, 2017). Hart and Risley (1995) reported more than two decades ago that children of professional parents are exposed to adult language that is both quantitatively and qualitatively richer than children of working class parents and parents on welfare benefits. Similar findings have been reported by other U.S. researchers (Hoff, 2003; Weisleder & Fernald, 2013) and also by workers in the United Kingdom (Jordan & Coulter, 2016; Locke, Ginsborg, & Peers, 2002; Roy & Chiat 2013). In Australia, the Australian Early Development Census is used to gauge levels of developmental vulnerability (as per teacher assessment across five developmental domains, including language skills) on school entry, and this is mapped on the basis of geographic location and indicators of socioeconomic disadvantage, such as proportion of single-parent households and parent employment levels. Australian Early Development Census data are collected every 3 years and have been found to predict academic performance across the elementary (primary) school years (Brinkman et al., 2013). This is consistent with the U.K. evidence indicating

that the influence of low SES on expressive and receptive language skills persists into the adolescent years (Spencer, Clegg, & Stackhouse, 2012). Further research on this important background characteristic of youth offenders and its influence on oral language competence is certainly needed.

In keeping with their overrepresentation in the youth justice system and the higher community ratio of DLD in male compared with female youth (3:1 vs. 1.3:1; Beitchman & Brownlie, 2014), most of the research concerning language skills in this population has had a focus on male youth (e.g., Bryan et al., 2007; P. C. Snow & Powell, 2004, 2005, 2008, 2011). The few studies that have examined language profiles in female youth indicate that rates of DLD exceed those found in community samples, but there are inconsistencies with the findings. P. C. Snow, Woodward, et al. (2015), for example, reported the presence of DLD in around 25% of the incarcerated female offenders in their sample, whereas the recent survey conducted by the New South Wales Justice Health and Forensic Mental Health Network (2017) indicated below-average Clinical Evaluation of Language Fundamentals–Fourth Edition Core Language Scores (CLS; Semel, Wiig, & Secord, 2003) in 93.3% of custodial female population (as opposed to 79.1% of custodial male population) and also found a higher proportion of female youth to be in the very low range (CLS < 70). Patterns and prevalence of DLD in young female offenders require focused speech-language pathology research, particularly given the increased prevalence of female youth offending that is occurring in some jurisdictions. A further impetus for careful identification of DLD in vulnerable female youth is the elevated risk this presents with respect to sexual abuse (Brownlie, Jabbar, Beitchman, Vida, & Atkinson, 2007).

Comorbidities With Language Disorders in Youth Offender Populations

Children and adolescents with neurodisabilities (e.g., autism spectrum disorders, intellectual disability, past histories of acquired brain injury) are overrepresented (and underdiagnosed) in youth justice populations (Hughes et al., 2012, 2017; Kenny & Lennings, 2007), but neurodisability cannot be considered the sole explanatory factor for high rates of DLD in youth justice populations (Hughes et al., 2017; P. C. Snow & Powell, 2011). It is to be expected that because participation in research is (rightly) voluntary, young people with neurodisabilities, whether diagnosed or not, will be more likely to decline invitations to take part in research studies that they perceive as highlighting deficit areas (Hughes et al., 2017). For this reason, the results of the recently reported New South Wales Young People in Custody Health Survey (Justice Health and Forensic Mental Health Network, 2017) are noteworthy (a) because they describe a larger ($n = 227$) and more representative sample of young people than generally possible in academic research studies and (b) because they included formal measures of both oral language skills and

literacy skills. In addition to the finding that 80.3% of participants scored below average on the Clinical Evaluation of Language Fundamentals–Fourth Edition CLS (Semel et al., 2003), this survey also identified that 94.1% of the sample scored below average on the Comprehension subtest of the York Assessment of Reading for Comprehension (Stothard, Hulme, Clarke, Barmby, & Snowling, 2012), bringing into sharp relief the extreme level of disadvantage experienced by this population regarding precursors to academic and vocational success. Such findings concerning low literacy levels support earlier reports of, for example, Bryan et al. (2007), Leone and Cutting (2004), and Snowling, Adams, Bowyer-Crane, and Tobin (2000).

An important but still underresearched comorbidity with DLD in youth justice populations is fetal alcohol spectrum disorder (FASD), the most extreme form of which is fetal alcohol syndrome. FASD is associated with prenatal alcohol exposure and has an unknown prevalence due to diagnostic challenges; however, it has been estimated to occur in between 0.2 and 1.5 cases per 1,000 live births in the United States (Riley, Infante, & Warren, 2011). In Australia, this rate is estimated at between 0.26 and 0.48 per 1,000 live births—the higher rate occurring in Indigenous communities (Mutch, Watkins, & Bower, 2015). In spite of higher prevalence rates in Indigenous communities, the Australian Medical Association (2016) cautions that “FASD is an issue that is not confined to a particular community or demographic; it is a disorder that crosses socioeconomic, racial and education boundaries.” FASD is associated with wide-ranging executive function, behavioral and academic difficulties (Kalberg et al., 2013), and an increased risk of contact with the law (Bower et al., 2018; Burd, Martsoff, & Juelson, 2004). In their recent epidemiological study of a sample of young people in custody in Western Australia, Bower et al. (2018) reported that 89% of the sample was shown to have at least one domain of severe neurodevelopmental impairment and 36% were diagnosed with FASD, which the authors caution may be an underestimate, for methodological reasons. Notably, two thirds of the youths diagnosed with FASD also had impaired language skills, as measured by the use of standardized tools. FASD warrants closer consideration in research focusing on language functioning in the youth justice population, as many of its features create additional therapeutic challenges to be accommodated both in intervention studies and in everyday casework.

In recent times, a further important comorbidity has been identified in this population in the form of alexithymia (lack of words for one’s own affective states). Alexithymia has been described in a number of clinical populations, some of which are overrepresented in youth justice settings, such as young people on the autism spectrum and those who have experienced severe emotional trauma early in life (see P. C. Snow, Woodward, et al., 2015, for a review). Its overrepresentation in youth offenders in Snow et al.’s study was not, however, associated with DLD; rather, it showed a significant association with high-prevalence mental health problems, such as depression and anxiety. Alexithymia is

relevant to speech-language pathology because it can be easily missed by clinicians who are providing counseling services to youth offenders who needs to be differentiated from poor language functioning. Its presence may flag emotion identification and labeling as an early therapeutic focus and is an area for interdisciplinary collaboration between SLPs, psychologists, and social workers.

DLD in Youth Offender Populations: Etiological Considerations

As with most other circumstances where DLD is identified, we cannot be certain about its etiology in the youth justice population; however, we do know that, in addition to common comorbidities, risk factors such as exposure to early maltreatment (abuse and/or neglect) are over-represented in the backgrounds of young people in youth justice settings (Stewart, Livingston, & Dennison, 2008). This, in itself, is a factor that jeopardizes early language development and engagement with school (Lum, Powell, & Snow, 2018; P. C. Snow, 2009). Further comorbidities include high-prevalence mental health problems such as depression and anxiety (Hughes et al., 2017; P. C. Snow & Powell, 2011; P. C. Snow, Woodward, et al., 2015), substance misuse histories (Hughes et al., 2017; P. C. Snow & Powell, 2008), and low IQ (though not necessarily intellectual disability; Hughes et al., 2017; P. C. Snow & Powell, 2008, 2011; P. C. Snow, Woodward, et al., 2015). It is possible that these factors, together with the effects of socioeconomic disadvantage and exposure to early maltreatment, conspire to create a “perfect storm” that works against the development of optimal language and literacy skills. This notion was explored by Bryan, Garvani, Gregory, and Kilner (2015), who described a “compounding risk” model for thinking about youth offenders. Notably, an association has been reported between severity of DLD in incarcerated young people and the seriousness of their offending, as measured by convictions for acts of interpersonal violence (P. C. Snow & Powell, 2011), and in the same study, rates of DLD were higher in young people who had experienced periods of out-of-home (foster) care because of child protection notifications. This period in the care system also represents a missed opportunity for developmental assessment and provision of services to children who are at risk for compromised language development (Bryan et al., 2015; Hughes et al., 2017; P. C. Snow, 2009; P. C. Snow & Powell, 2011).

Childhood maltreatment occurs in the wider context of adverse childhood experiences (ACEs; Baglivio et al., 2014). ACEs are relevant to the language skills of young people in the justice system because they work against the establishment of a nurturing, child-centered interpersonal milieu that simultaneously fosters language skills and the development of empathy, emotional attunement, and emotional self-regulation (Cohen, 2001; Cross, 2004; P. C. Snow, 2009). ACEs are cumulative in nature and are overrepresented in the backgrounds of young people in the justice system, as compared with the backgrounds of young people whose trajectories do not involve formal

contact with the law (Baglivio et al., 2014). This has important implications for how interventions should be designed and delivered for such young people to offset the impact of both externalizing (e.g., interpersonal violence and damage to property) and internalizing (e.g., anxiety and depression) mental health problems (including substance abuse), noting that these phenomena often co-occur in high-risk young people (P. C. Snow & Powell, 2011).

In summary, the nature and severity of DLD features in youth offenders, together with their comorbidities with markers of risk such as early maltreatment and/or trauma exposure, low SES, and educational underachievement, make this population one whose difficulties are directly relevant to the expertise and scope of practice of speech-language pathology as a profession. This is particularly so given longitudinal evidence indicating that DLD that has persisted beyond early childhood is likely to be chronic in nature (Beitchman & Brownlie, 2014). These implications, together with aspects requiring further research, are considered below.

Implications for Speech-Language Pathology Scope of Practice

Language Competence and Early Academic Success

Article 28 of the UNCRC (1989) asserts the child's right to an education, which should be compulsory at elementary (primary) levels and based on principles of equitable access and flexible options at secondary level. This has important implications for both promoting early academic success and responding appropriately to the language and literacy needs of youth offenders. There is widespread consensus in the international reading literature that receptive and expressive oral language skills form the developmental bedrock for the transition to literacy (reading, writing, and spelling) in the first 3 years of school for both typically developing children (Nation & Snowling, 2004; C. Snow, 1983; P. C. Snow, 2016; Snowling & Hulme, 2012) and those with developmental language difficulties (Nation, Clarke, Marshall, & Durand, 2004). Linguistic processes such as phonological and phonemic awareness, knowledge of the alphabetic principle, and how this maps to decoding, vocabulary, comprehension, and fluency provide the scaffolding for children to make the developmentally critical shift from talking and listening in the preschool years to reading and writing in the early years² of school, while still continuing to develop overall language skills alongside this transition (Konza, 2014).

In industrialized western nations such as the United States, the United Kingdom, Canada, Australia, and New Zealand, the transition to literacy and optimal ways to support this from a pedagogical perspective have been the subject of fierce and ongoing debate in education policy and practice circles since the 1970s (Hempenstall, 1997;

P. C. Snow, 2016). On one side of this debate, we see advocates of whole language instruction who assert that reading and writing are skills as natural as talking and listening, whereas on the other side, cognitive scientists argue that, for the vast bulk of children, reading is a skill that requires specific instruction across a range of domains, including decoding, in order to understand the complex phoneme-grapheme relationships in a language such as English that has only a semitransparent orthography (Moats, 2010). Resistance on the part of early years' education academics (and by extension, early years' teaching graduates who emerge from their lecture theaters) to providing explicit and systematic phonics instruction to beginning readers has almost certainly created what Lyon (2003) referred to as "instructional casualties," in spite of three international inquiries³ into the teaching of reading recommending against whole language-derived instruction (P. C. Snow, 2016).

This debate about how reading is taught is central to the work of SLPs in early years' classrooms, as evidence indicates that children from less advantaged backgrounds with respect to school readiness derive particular benefit from high-quality explicit instruction (P. C. Snow, 2016). Children who ultimately come into contact with youth justice services have been described as being in a "school-to-prison pipeline," and the low quality of early reading supports for vulnerable children has been identified as a key factor in this trajectory (Christle & Yell, 2008). The comorbidity between poor academic achievement and behavior problems in the early years and beyond is also relevant to SLPs, as many such children, on closer inspection, have undiagnosed DLDs (Cohen, Davine, Horodezky, Lipsett, & Isaacson, 1993) and go on to experience high rates of suspensions and exclusions from school (P. C. Snow, Woodward, et al., 2015), en route to the youth justice system. There is a pressing need for better identification of students with DLD at both elementary and secondary levels, particularly those whose language difficulties may be masked by behavioral and emotional issues, such as attention-deficit/hyperactivity disorder, oppositional defiant disorder, conduct disorder, and/or anxiety disorders. Stringer and Lozano (2007), for example, reported that, in a sample of students with emotional-behavioral difficulties, 74% had a language disorder; however, fewer than half of these were identified as such by their teachers or health professionals. There is also a need for intervention research, which focuses on the contribution of speech-language pathology professional development to education and youth justice staff regarding the language literacy nexus and ways of promoting staff knowledge and practices that foster gains in these domains at school and during custody. Evidence from early years' research suggests that this can be done via small-scale interventions (P. C. Snow et al., 2014) but may be less

²The term *early years* is used to refer to the first 3 years of formal schooling, from an approximate age of 5 years.

³In the United States (National Reading Panel, 2000), Australia (National Inquiry Into the Teaching of Literacy, 2005), and the United Kingdom (Rose, 2006).

successful when taken to scale, for example, at a state level (Piasta et al., 2017).

Success at school derives not only from academic achievements, however, as forming and maintaining friendships is also a critical aspect of thriving at school and of early mental health (Beitchman & Brownlie, 2014; Brinton & Fujiki, 2005). Accordingly, children need to be able to engage verbally in a range of classroom transactions, not all of which are pedagogically focused. Participation in circle time activities, for example, requires children to listen to others, to take turns, to consider the perspective of others, and to express one's own views in ways that are respectful and pragmatically appropriate (Bowen & Snow, 2017). When incidents occur at school, such as conflicts between children and instances of suspected bullying, school staff need to conduct quasiforensic interviews in order to elicit children's narrative accounts of what occurred, and SLPs can support this process by promoting the adoption of evidence-based interviewing principles with children at different developmental stages (Brubacher, Powell, Snow, Skouteris, & Manger, 2016; P. C. Snow, Powell, & Sanger, 2012). Ensuring that at-risk children and adolescents do not enter the notional school-to-prison pipeline requires, therefore, that they are equipped with oracy and literacy skills that mitigate early risk factors and contribute to academic success and retention at school. Collaborative relationships between teaching, welfare, and speech-language pathology staff across all three response to intervention tiers is central to this endeavor (P. C. Snow, 2016). Whole-school approaches to students' speech, language, and communication needs may be effective if adequately resourced with specialist expertise and backed by senior staff (Leyden, Stackhouse, & Szczerbinski, 2011).

Young People's Passage Through the Justice System

The small but significant percentage of young people who do experience formal contact with the police and youth justice system must navigate their way through highly verbal and high-stakes, text-rich processes. In most cases, this begins with interception by law enforcement personnel, sometimes at the scene of an alleged crime and sometimes a period of time later. Whether they are suspects, victims, or witnesses in criminal investigations, young people will be expected to answer specific questions and to provide some form of narrative account of events. This account is unfortunately often disrupted by unhelpful, distracting questions by police (Agnew, Powell, & Snow, 2006), who do not necessarily adhere to best practice guidelines on how to elicit complete and uncontaminated narrative accounts from children and adolescents (P. C. Snow et al., 2012). This is particularly notable in view of the fact that narrative language skills in this population have been shown to be compromised under low-stress experimental conditions (P. C. Snow & Powell, 2005), suggesting that even greater difficulties can be expected in high-stakes situations such as police interviews or courtroom cross-examinations.

In addition to dealing with these interview processes, young people need to understand specialized legal terminology, such as the language contained within the so-called *Miranda Rights*, which comprises low-frequency terms that many young people may not have encountered previously, such as *right*, *appoint*, and *attorney*. Rost and McGregor (2012) examined comprehension of such rights in a sample of adolescents with specific language impairment, but no criminal justice involvement, and concluded that their equitable access to the justice system would be compromised as a result of their poor comprehension of these terms. Young people who are released into the community on bail may have a number of conditions placed on their liberty, and these, too, will be couched in legal terminology. Ironically, a function of bail conditions is to reduce the likelihood of the young person's reoffending (Spratt & Myers, 2011); however, when such conditions are multiple and are expressed in ways that are difficult for a young person (with or without DLD) to understand, they may contribute to a reappearance in court (LaVigne & Van Rybroek, 2011). It has also been argued in the criminal law literature that language difficulties will interfere with the establishment of a functional working relationship between youth offenders and their legal counsel (LaVigne & Van Rybroek, 2013), further compromising the extent to which such young people can expect to be treated fairly as citizens when they come into contact with their justice system. This position was supported by the findings of Lount, Hand, Purdy, and France (2017), who reported that youth offenders (of unknown language status) experienced poor comprehension of courtroom processes and felt that they "lacked a voice" in that setting. Accordingly, there have been recent calls for registered intermediaries (RIs) to be available to people with cognitive (Hepner, Woodward, & Stewart, 2015) and language (O'Mahony, 2010) impairments in the court system. RIs are "registered professional communication specialists specifically trained to advise on how such barriers can be circumvented within the criminal justice system. The role of the RI is to ensure that communication with vulnerable witnesses is as 'complete, accurate and coherent as possible' during police interview and the trial process" (Hepner et al., 2015, p. 456). Speech-language pathology as a profession has an important advocacy role to play in improving knowledge and practices pertaining to oral language competence in the youth justice system and ensuring that young people with language disorders are not disadvantaged in their encounters with the legal system. This can be done through both strengthening the knowledge and skills of court personnel and advocating for the presence of RIs for all vulnerable people who appear before the court, whether as suspects, witness, or victims.

Young people required by the courts to complete custodial sentences may, as a condition of their sentence, be mandated to participate in targeted psychological interventions aimed at improving mental health, reducing substance abuse, and/or reducing particular offending patterns (e.g., anger management programs and sex offender treatment

programs). Such programs may be based on validated psychological theories and be conducted on established evidence-based principles, but these safeguards do not remove the fact that they are highly verbally mediated. As a consequence, such therapeutic interventions may present particular engagement challenges for young people with (invariably undiagnosed) DLD. This is an area requiring investigation by cross-disciplinary research teams between speech-language pathology, psychology, and social work, so that ways of modifying such interventions to improve their accessibility to and efficacy for young people with DLD, while preserving their theoretical integrity and fidelity, can be established.

In recent years, there has been a focus on trauma-informed practice in youth justice settings so that all routines and the staff implementing them are supported by knowledge of triggers for emotional dysregulation (Buckingham, 2016). Buckingham's observation that "Untreated, trauma victims are unaware of their own hypervigilance and are left to misinterpret events, overestimate threats, and respond from a place of misperception" (p. 691) is in keeping with the long-known hostile attribution attached to ambiguous social cues for youth offenders (Dodge, Price, Bachorowski, & Newman, 1990) and highlights the role for SLPs, in consultation with other clinical service providers, in supporting such young people to reinterpret social cues and develop responses that are prosocial rather than hostile. It has also been noted that language difficulties may not be readily identified or understood by education and youth justice staff, resulting in these difficulties "masquerading" as behavioral phenomena such as poor compliance and low motivation to engage (P. C. Snow, Woodward, et al., 2015). SLPs have an important role to play in providing professional learning to youth justice staff to explain the ways in which language difficulties manifest in everyday situations and in supporting staff to respond in ways that promote communication success.

In some jurisdictions, most notably Australia (Daly & Hayes, 2001), New Zealand (McElrea, 1998), Canada (Hillian, Reitsma-Street, & Hackler, 2004), England (Restorative Justice Council, 2015) and, to a lesser extent, the United States of America (Beale, 2003), young people have the opportunity to participate in a restorative justice conference as part of or as a substitute for a sentencing process to a custodial order. Restorative justice has been defined by Zehr (2015, p. 2) as

an approach toward achieving justice that, to the best extent possible, involves all the stakeholders involved in a crime to address the harms, needs, and obligations arising from the crime by putting right and enabling healing to the greatest extent possible. The 3 pillars of RJ are harms, needs, and obligations.

As such, restorative justice aligns with the view that young people should experience diversionary rather than punitive responses to their wrongdoings where possible, if for no other reason that punishment is not particularly

effective at reducing reoffending and, in fact, more sustained contact with juvenile justice services may be criminogenic (McAra & McVie, 2007). The manner in which restorative conferences are convened varies between jurisdictions, and in many cases, they sit alongside, rather than being a substitute for formal legal processes. Their underlying principle is that the harm that has been caused by the offender's wrongdoing is best dealt with through acknowledgement of that harm and determining a mutually agreed way of repairing this, while also seeking to (re)integrate the offender into mainstream society (Zehr, 2015). As described by P. C. Snow and Sanger (2011) and Hayes and Snow (2013), however, restorative justice conferences are highly verbal exchanges, which tax vulnerable language-processing abilities and require higher order pragmatic and social cognition skills, such as dealing with disparities between verbal and nonverbal messaging, displaying genuineness and empathy, and making an authentic apology. High rates of alexithymia, as described earlier, are likely to be disadvantageous to youth offenders in this context, as restorative justice conferences require the identification and discussion of feelings: one's own and those of others. For these reasons, such processes require a speech-language pathology lens to ensure that adequate preparation protocols are in place and that convenors are well versed in the types of language vulnerabilities that are common in this population and ways in which they might impact on conference outcomes for both the offender and the victim.

Language and Literacy Interventions for Young People in Custody

The incarceration of young people embodies the most extreme manifestation of the school-to-prison pipeline, while also offering one of the most important intervention imperatives: the need to improve vulnerable young people's reading and writing abilities. As noted by Leone, Krezmien, Mason, and Meisel (2005, p. 95) in reference to incarcerated youth:

Reading is likely the single most important skill acquired through formal schooling, an essential foundation for educational progress and mastery. In today's world, a basic level of reading proficiency is no longer sufficient for the demands of the workplace.... Reading failure contributes to a host of long-term negative outcomes, including frustration leading to more generalized academic and behavior problems, high rates of suspension, and limited access to employment opportunities in adulthood.... Youth with pronounced reading difficulties are vulnerable to marginalization in their schools and communities and lifelong risk of involvement in the juvenile and criminal justice systems.

Given the high rates of detachment from school prior to incarceration (P. C. Snow & Powell, 2011; P. C. Snow, Woodward, et al., 2015), this period represents a vital second chance opportunity to reconnect with schooling.

Unfortunately, this is made more challenging by a number of barriers, most notably the large discrepancy between chronological age and reading age that opens up in adolescence for youth offenders (Justice Health and Forensic Mental Health Network, 2017) and the commonly occurring comorbid emotional and behavioral difficulties that make academic engagement challenging for this population (Allen-DeBoer, Malmgren, & Glass, 2006). The imperative to address poor reading skills during periods of incarceration takes on greater significance when considered alongside evidence that poor reading comprehension has been shown to be an independent predictor of recidivism (Rucklidge, McLean, & Bateup, 2013).

The literature on remedial interventions for incarcerated youth provides promising evidence supporting the use of systematic, explicit instruction in phonics decoding to enhance reading comprehension, vocabulary, accuracy, and fluency (Allen-DeBoer et al., 2006; Houchins, Jolivet, Krezmien, & Baltodano, 2008). It does not, however, provide an evidence base for the role of speech-language pathology in supporting young people with compromised language and/or literacy skills because of a dearth of such studies. This is a glaring gap in the research literature and is one that needs to be addressed by speech-language pathology research teams, in collaboration with justice and education colleagues.

The need for efficacious literacy screening processes that lead to targeted interventions matched to assessment profiles has also been highlighted in the literature (Wexler, Pyle, Flower, Williams, & Cole 2014). Such processes are central to the expertise and skill base of speech-language pathology as a profession (Ehren & Ehren, 2001; Serry et al., 2017; P. C. Snow, 2016), and SLPs can also play a major role in adapting mainstream response-to-intervention (Hempenstall, 2012) models to improve their fit in correctional contexts to support targeted literacy interventions (P. C. Snow, Sanger, Caire, Eadie, & Dinslage, 2015). Furthermore, SLPs have an important role in the creation and critical review of user-friendly, accessible printed materials that explain justice processes (e.g., the meaning of words used in bail conditions), young people's rights, how they should behave, and what they can expect during their community-based order or period of sentence. Communication is a basic human right, and it is not fair to set young people up to fail (e.g., through rule violation or recidivism) simply because they did not fully understand what was expected of them by authorities at the outset.

There is a small but positive emerging literature supporting the role of speech-language pathology in addressing communication needs of incarcerated young people. Gregory and Bryan (2011) in the United Kingdom and P. C. Snow and Woodward (2017) in Australia have demonstrated that such young people are able to show strong therapeutic engagement and make meaningful communication gains in response to relatively short-term, medium-intensity speech-language pathology interventions. It is also pleasing to note that both research teams have reported a positive response to these services by other members of the custodial youth

justice team (Bryan & Gregory, 2013; P. C. Snow, Bagley, & White, 2018). What is not known, however, is the extent to which gains made are sustained over time and/or make a difference to developmental trajectories on exit from the youth justice system. Caution should be exercised, however, in the selection of outcome variables employed, particularly as this relates to recidivism. As P. C. Snow et al. (2018) have noted, binary variables such as reoffending versus no reoffending fail to take account of the dimensional nature of offending behavior and the fact that, in line with Moffitt's (1993, 2006) dual taxonomy theory outlined earlier, the natural history of many youth offenders' patterns of behavior is improvement over time—a fact that will be lost if recidivism is considered only in binary terms.

In keeping with the school-to-prison pipeline notion, speech-language pathology services should be made available to at-risk young people not engaged with school (Bryan et al., 2007), given the high rates of comorbidity between DLD and literacy difficulties. This will mean providing speech-language pathology services through youth welfare, social service, and child protection agencies, all of which intersect with youth justice and form part of the school-to-prison pipeline. A question that may arise from a review of this literature is that of language screening of young people when they enter the youth justice system. In an epidemiological sense, screening is defined as “the presumptive identification of unrecognized disease or defect by the application of tests, examinations, or other procedures that can be applied rapidly and inexpensively to populations” (Valanis, 1999, p. 313). In biomedicine, screening is used to detect the presence of disease before symptoms appear; however, its role in the human communication sciences pertains more to case identification. This, together with the high base rate of DLD in this population, calls into question the wisdom of screening, as opposed to employing a set of universal assumptions about and approaches to the language needs of this population. It may be more important, therefore, to develop algorithms for determining which young people will derive the most benefit from speech-language pathology services, taking account of individual factors and circumstances pertaining to the nature and period of sentence.

Future Research Directions

Table 1 summarizes the key research challenges and opportunities facing speech-language pathology as a profession, given the current state of the evidence about this population and their communication needs. The field of communication impairment in youth justice populations is in its infancy, and to date, most emphasis has been placed on language functioning. Lount, Purdy, et al. (2017) reported that youth offenders were seven times more likely than nonoffending controls to have some form of hearing loss in at least one ear. Consideration also needs to be given to other aspects of communication, most notably, speech, fluency, and voice disorders, the prevalence of which remains unknown in this population.

Table 1. Research challenges and opportunities for speech-language pathology with young people in the “school-to-prison pipeline.”

- Improving school systems so that speech-language pathologists are better able to identify and advocate for the needs and rights of young people with comorbid language/literacy and behavior difficulties
- Strengthening the evidence base for speech-language pathology interventions for developmental language disorder and other communication disorders at all stages of the “school-to-prison pipeline”
- Improved understanding and identification of the contribution of all forms of neurodisability, notably autism spectrum disorders, intellectual disability, traumatic brain injury, and fetal alcohol spectrum disorder to language functioning in school and youth justice populations
- Increasing the visibility and accessibility of speech-language pathology expertise in police and court processes
- Better understanding and responding to the wider communication profiles (speech, language, hearing, voice, fluency) and needs of youth offenders, both male and female
- Better understanding and responding to the communication needs (speech, language, hearing, voice, fluency) of youth offenders from overrepresented ethnic minorities, including first nation peoples
- Identifying the role that compromised expressive and receptive language skills play in restorative justice conferences, at school and in the justice system
- Better understanding and responding to the communication needs of children in the care of state child protection services
- Identifying ways in which speech-language pathology support to youth justice staff can improve program delivery and day-to-day operations
- Developing tools for validly assessing the language skills of overrepresented ethnic minorities
- Identifying the extent to which speech-language pathology services can enhance literacy outcomes for vulnerable secondary students and youths completing custodial sentences
- Developing collaborative speech-language pathology–psychology research aimed at making adjustments to “talk therapies” to improve their accessibility to and effectiveness with youth offenders with developmental language disorder
- Gaining a clearer understanding of the contribution of low socioeconomic status to the language profiles of youth offenders and the nature of family-level protective factors for language development that exist across the socioeconomic status spectrum

In addition to the need to better understand the broader communication needs of youth offenders (beyond language), there is a pressing need for research identifying ways of tailoring speech-language pathology interventions to the communication needs of youth offenders and determining the extent to which gains made (a) are maintained and (b) contribute to prosocial engagement in the community after sentence completion. As noted earlier, little is known about the communication profiles and needs of young female offenders, and there is a need to widen the normative frames of reference on standardized measures in order to accommodate the needs of overrepresented ethnic minorities in youth justice populations. Speech-language pathology research is also needed about the role of compromised receptive and expressive language skills in restorative justice processes, and an evidence base for speech-language pathology interventions for youth offenders with both

language and literacy difficulties is also needed. Because young people with DLD who enter the youth justice system were almost invariably once in school, it is critical that they are identified and given access to speech-language pathology services while still in school, notwithstanding the fact that behavior, rather than language difficulties, may be what teachers see as the primary trigger for referral to specialist services (Beitchman & Brownlie, 2014; Cohen et al., 1993; P. C. Snow & Powell, 2011).

Conclusion

When considered as part of the “school-to-prison” continuum, youth offenders as a group are not remarkably different from those included in the caseloads of SLPs working with vulnerable secondary-school students, some of whom have comorbid neurodisabilities and experience internalizing and externalizing mental health problems (Joffe & Black, 2012). Differences lie perhaps in severity of impairment and the perspective of the profession and policy makers who determine which services are available to youth offenders. The international data attesting to the high prevalence of DLD in this population should leave no uncertainty that speech-language pathology services need to be viewed as essential in youth detention facilities. Providing evidence-based assessment and intervention services to youth offenders needs to be embedded in speech-language pathology scope of practice.

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