Supporting Young Offenders to Communicate in the Youth Justice System: a Scoping Review Protocol

Anna Sowerbutts^{1,2,3*}, Emma Eaton-Rosen^{2,3}, Karen Bryan⁴, Suzanne Beeke¹

¹Language and Cognition, Division of Psychology and Language Sciences, UCL, London ²The Children's Integrated Speech and Language Therapy Service for Hackney and the City, London ³Homerton University Hospital NHS Foundation Trust, London ⁴University of Greenwich, London

ABSTRACT

Background: Young offenders disproportionately present with unidentified Developmental Language Disorder. Successfully participating in the youth justice system demands considerable proficiency in language, and a large proportion of young offenders will thus struggle to engage in the required processes. Although there is emerging evidence regarding the specific communication tasks that young offenders are likely to struggle with, and published guidelines exist for supporting young offenders to communicate, it is unclear to what extent these recommendations are substantiated by evidence. This scoping review will collate what is currently known about supporting young offenders to communicate, identifying gaps and trends in research.

Methods/Design: The review will consider publications which focus on young offenders, describe the communication requirements of the youth justice system, and/or provide guidelines for supporting young offenders to communicate in this context. Publications only concerning victims or witnesses will be excluded. Five databases will be searched, using identified keywords from relevant papers. To identify further studies, reference lists will be scanned and the grey literature will also be searched. Relevant data will be extracted from included publications using a pre-defined tool, and a narrative and visual summary of the findings will be presented.

Discussion: The scoping review will collate literature from different disciplines on supporting young offenders to communicate in the youth justice system. Specifically, it will map the evidence on a) the communication requirements of youth justice interactions; and b) how to support young offenders to communicate in this context.

Keywords: communication, language disorder; young offenders; youth justice.

1. Background

The process of participating in the youth justice system (YJS) requires regular and skilful use of language. From the initial interview with police, through to court appearances, panel

^{*} Correspondence to Anna Sowerbutts, Speech and Language Therapy, Room 31b D Block, St. Leonard's Hospital, Nuttall Street, London, UK N1 5LZ. Email: a.sowerbutts@ucl.ac.uk

discussions, restorative justice conferences and therapy sessions, young offenders (YOs) must navigate a succession of challenging verbal interactions. These are high-stakes encounters; a YO's understanding of the language used, their linguistic dexterity and their ability to articulate the expected responses at the right times may have implications for compliance with bail conditions, the relationship with their legal representation, and even the sentence they are given (Lavigne, Law, Remington, Center, & Rybroek, 2011).

It has been repeatedly shown that YOs are far more likely to have significant communication difficulties than their peers (Snow, 2019), with a substantial number presenting with Developmental Language Disorder (DLD). Developmental Language Disorder is defined by the International Classification of Diseases (ICD-11) as "persistent difficulties in the acquisition, understanding, production or use of language...[that] cause significant limitations in the individual's ability to communicate...[and] are not explained by another neurodevelopmental disorder or a sensory impairment or neurological condition" (World Health Organization, 2018; entry 6A01.2).¹ A systematic review by Anderson et al. (2016) found that across countries and settings, there was a strong association between offending status and DLD, with several studies finding prevalence rates in excess of 50%, compared with the wider population rate of approximately 7% (Norbury et al., 2016). Evidence also suggests that this association cannot be explained by other factors such as socioeconomic status or overall IQ (Hopkins, Clegg, & Stackhouse, 2018). There is thus a fundamental mismatch between the communication requirements of the YJS, and the communicative abilities of many who encounter it.

The challenges that YOs with DLD are likely to face when participating in the YJS have been considered from various angles, with numerous studies having assessed particular linguistic or pragmatic skills in YOs that are deemed relevant to YJS interactions. These have included understanding of key legal vocabulary, such as 'caution' and 'penalty'(Sanger, Moore-Brown, Magnuson, & Svoboda, 2001), the ability to correctly interpret non-literal language (Snow & Powell, 2008, 2011) and comprehension of longer spoken passages (Gregory & Bryan, 2011; Kippin et al., 2018; Winstanley, Webb, & Conti-Ramsden, 2019). Young offenders' expressive skills have also been thoroughly examined. The ability to construct a narrative or explain an event is considered particularly important to successful participation in the YJS (Snow, Powell, & Sanger, 2012), and has been repeatedly shown to be an area of difficulty for YOs (Hopkins et al., 2018; Humber & Snow, 2001; Snow & Powell, 2005). However, assessment of these skills has largely taken place using 'proxy' measures, such as explaining the rules to a game, rather than direct observation of language use in routinely occurring YJS interactions.

In the UK, speech and language therapists (SLTs) are increasingly employed to work with YOs, providing assessment, therapy, and/or staff training (Royal College of Speech and Language Therapists, 2019). Within this role, they may support YOs to participate in YJS interactions, either by providing direct therapy (for example, to develop their understanding of institutional vocabulary that is commonly used) or by training staff to facilitate communication. This may include teaching interactional strategies, such as avoiding open questions, to support access to YJS procedures (Bryan & Gregory, 2013). Initial research suggests that SLT involvement in this setting can be beneficial (Gregory & Bryan, 2011; Snow & Woodward, 2017) and that it is perceived positively by YJS professionals (Bryan & Gregory, 2013; Snow, Bagley, & White, 2018). However, SLT involvement is inconsistent

¹ Language acquisition difficulties also regularly occur alongside known conditions such as autism, in which a diagnosis of 'language disorder associated with X', rather than DLD, would be given (Bishop et al., 2017).

across YJS settings, with many services having no direct access to specialist support. Many YOs are thus reliant on the knowledge and skills of YJS professionals to support them to communicate in this demanding setting.

Attempts have been made to mitigate the impact of communication difficulties on courtroom participation in the UK legal system. Vulnerable witnesses and victims are able to access Registered Intermediaries to assist their communication, and formal published guidance for justice professionals ('Achieving Best Evidence in Criminal Proceedings') outlines how to support victims and witnesses to give evidence. These guidelines include detailed advice on how to establish rapport, how to initiate and support a narrative account, and the type of questions that should be used (Ministry of Justice, 2011). Neither of these initiatives apply to defendants. Judges may, at their discretion, appoint someone to support a defendant with communication, but non-registered intermediaries do not have access to the Ministry of Justice's training and accreditation schemes, and provision is inconsistent (Cooper & Wurtzel, 2013). When communication difficulties are identified in a defendant, special measures may be put into place and a protocol for communicating with the defendant established at a 'ground rules hearing' (Ministry of Justice, 2019). An independent body, The Advocate's Gateway, has published toolkits for communicating with witnesses and defendants (Toolkits - The Advocate's Gateway). However, these initiatives focus on courtroom interactions, with relatively minimal attention given to supporting YOs' communication at other stages of the justice system. Although the Ministry of Justice has published advice for prison and probation staff working with YOs with communication difficulties (Ministry of Justice, 2009), this is far less comprehensive than the 'Achieving Best Evidence' toolkits, with suggestions on communicating more effectively limited to six 'communication principles' and different question types.

Critically, it is unclear to what extent any of the available recommendations are underpinned by research or reflect current evidence regarding what supports interaction. Research into healthcare interactions has analysed genuine patient-provider conversations to discover what strategies are effective in supporting interaction, leading to successful communication training skills programmes for disorders including aphasia, dementia and psychosis (O'Brien et al., 2018). Crucially, some commonly recommended language strategies have been found not to reduce communication breakdown, and may even exacerbate it (O'Brien et al., 2018). Guidelines based solely on 'expert opinion', without a demonstrable grounding in research including systematic analysis of real-life interactions, are thus at risk of being ineffectual or even detrimental.

Existing reviews

A 2016 systematic review of DLD in YOs (Anderson, Hawes, & Snow, 2016) revealed the high prevalence of communication difficulty in this population. However, as an epidemiological review, it did not consider how YOs are supported to access YJS interactions. In addition, two narrative reviews addressed the impact of DLD on participating in YJS interactions (Snow, 2019; Snow & Sanger, 2010), concluding on the basis of YOs' poor performance on language assessment tasks that this population is likely to be disadvantaged in a range of verbal encounters such as police interviews, courtroom processes, restorative justice conferences and psychological interventions. While extremely valuable in outlining the various communicative demands of the YJS, these papers did not clarify their search methodology or inclusion criteria, and so the replicability of their findings are unverified. Moreover, these studies did not report any published evidence regarding the effectiveness of strategies employed to support YOs to communicate in these contexts. A preliminary search of PROSPERO, MEDLINE, the Cochrane Database of Systematic

Reviews and the Joanna Briggs Institute Database of Systematic Reviews and Implementation Reports was conducted and no additional scoping reviews or systematic reviews on language difficulties and YOs were identified.

Given the apparent sparsity of empirical evidence on how to support the communication of YOs with DLD in YJS interactions, a review is warranted to collate current knowledge, sketch out research trends, and clearly identify evidence gaps, thereby guiding the focus of future study. Scoping reviews are routinely used for this purpose, and employ an iterative search process to ensure relevant studies are not overlooked (Arksey & O'Malley, 2005). This method's inclusive approach to literature type is particularly suited to this study's objective, as advice on supporting YOs with communication may be published in professional guidance rather than academic journals.

2. Methods/Design

The proposed scoping review will be conducted in accordance with the Joanna Briggs Institute methodology for scoping reviews (Peters et al., 2017).

2.1 Aims

This scoping review aims to map the available evidence which features, comments on or evaluates a) the communication requirements of YJS interactions; and b) how to support YOs to communicate in this context.

Review question

What evidence exists regarding the communication requirements of YJS interactions and how best to support young offenders to communicate within the range of contexts they encounter in the YJS?

2.2 Inclusion criteria

Participants

This scoping review will consider research pertaining to YOs, including those in secure and community settings. While there is international variation regarding the ages at which a person is considered a young offender, as opposed to an adult offender or a child lacking criminal culpability, there is general consensus in most high-income countries that 'young offender' constitutes a distinct category, one requiring different approaches and policies to adult offenders (Snow, 2019). Rather than imposing participant age restrictions and potentially excluding relevant studies, therefore, the review will thus consider all publications which focus on the category 'young offender' (or a synonymous term such as juvenile delinquent). This review will not include studies which only focus on witnesses or victims, though publications which cover these in addition to YOs will be considered.

Due to the high prevalence of (often previously undiagnosed) DLD in this population, and the fact that many studies featuring YOs may not have assessed their language abilities, the review will not be restricted to literature that specifically mentions DLD, but will include all YOs. Studies involving YOs identified as having conditions known to be associated with language disorder, including autism and brain injury, will not be excluded, given that any communication support recommendations may be applicable.

Concept

The review will consider all publications that feature, comment on, or evaluate evidence regarding a) the communication requirements of YJS interactions; and b) recommendations or strategies to support YOs to communicate in YJS-specific interactions.

Context

The review will consider publications which focus on formal interactions that are an acknowledged and regular part of the YJS. These may include police interviews, court appearances, or routinely occurring sessions in a secure or community youth justice setting (e.g. restorative justice conferences, verbally mediated therapy interventions, panel discussions). All geographical contexts will be considered.

Types of sources

The review will consider any existing primary research studies of quantitative, qualitative or mixed-methods design, as well as reviews, editorials, and relevant grey literature. Given the nascent state of peer-reviewed research in this field, this open approach is essential to capturing and cataloguing the full range of evidence for how to support YOs' communication in the YJS, and is consistent with scoping review methodology. Articles published in English will be included. No date range will be specified.

2.3 Search Strategy

The search strategy will aim to locate both published and unpublished primary studies, review and text and opinion papers, as well as professional guidance documentation. An initial limited search of CINAHL and LLBA was undertaken to identify articles on the topic. The text words contained in the titles and abstracts of relevant articles, and the index terms used to describe the articles were used to develop a full strategy for CINAHL (see Table 1). The search strategy, including all identified keywords and index terms will be adapted for each included information source. The reference lists of articles selected for full text review will be screened for additional papers.

 Table 1. CINAHL search conducted September 2019.

#	Query (Limiters- English Language; Expanders- Apply related words; Also search within the full text of the articles; Apply equivalent subjects)	Results
S 1	(MH juvenile offenders)	1,858
S2	"young offenders" OR "juvenile delinquents" OR "youth offenders"	3,696
S3	S2 OR S3	4,124
S4	(MW Communication) OR (MW Language Disorders) OR (MW Communicative disorders)	96,665
S5	"communication needs" OR "communication difficult*" OR "language impairment" OR "communicat* disorders" OR "communicat* ability" OR "linguistic demands"	16,540
S6	S4 OR S5	98,264
S 7	S6 AND S3	99

As recommended for scoping reviews (Arksey & O'Malley, 2005), the search strategy will be iterative, and so search terms and sources are likely to be revised during the process. Any changes will be documented.

2.4 Information sources

The databases to be searched include CINAHL, LLBA, PsycINFO, Social Sciences Citation Index and the Criminal Justice Database. Sources of unpublished studies and grey literature to be searched include OpenGrey and Google Scholar as well as relevant professional organisation websites including the Royal College of Speech and Language Therapists, the American Speech-Language-Hearing Association, Speech Pathology Australia, Speech-Language & Audiology Canada, the Youth Justice Board Resource Hub (UK) and the youth justice sections of government websites from the USA, Australia, Canada, Ireland and New Zealand.

2.5 Study selection

Following the search, all identified records will be collated and uploaded into Mendeley (V 1.19.4) and duplicates removed. Titles and abstracts will be screened by two independent reviewers for assessment against the inclusion criteria for the review, and then this process will be repeated for the full texts of potentially relevant papers. Reasons for exclusion of full text papers that do not meet the inclusion criteria will be recorded and reported in the scoping review. Any disagreements that arise between the reviewers at each stage of the selection process will be resolved through discussion. The results of the search will be summarised in a Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) flow chart (Moher, Liberati, Tetzlaff, & Altman, 2009).

2.6 Data extraction

Data will be extracted from included papers by two independent reviewers using a reviewer-developed tool, adapted from the *Joanna Briggs Institute Reviewer's Manual* in order to incorporate the distinct criteria and variables under scrutiny (Peters et al., 2017). Data extracted will include details about the population, the type of study (including whether the recommendations are directly traceable to research or are derived from expert opinion), whether particular YJS contexts and YO diagnoses are specified, and a summary of the communication barriers and guidelines discussed. The draft data extraction tool (see Table 2) will be modified and revised as necessary during the process of extracting data from each included paper. Modifications will be detailed in the full scoping review. Any disagreements between the reviewers will be resolved through discussion. Authors of papers will be contacted to request missing or additional data, where required.

Publication Details and Characteristics	
Citation details (e.g. author/s, date, title, journal, volume, issue, pages)	
Type of Study -primary research -review article	

 Table 2.
 Draft data extraction tool.

-guidance for professionals working in YJS -other (specify)	
Country	
Participant details if primary research (e.g. age/sex and number)	
Details/Results extracted from study	
YJS interaction context (can be multiple) -police interview -courtroom -youth offending team -other (specify) -not specified; general advice	
Diagnosis of YOs -(D)LD -autism -learning disability -other neurodevelopmental or acquired disorder -not specified	
Summary of communication barriers discussed	
Summary of communication guidance provided	

2.7 Data presentation

The extracted data will be analysed and presented in two ways. A narrative summary of the overall findings will be provided, drawing out the key themes of the communication skills required in the YJS and recommendations for supporting YOs to communicate in this setting. This summary will distinguish findings according to whether they fall into the category of peer-reviewed research or expert opinion, and will highlight areas where evidence was scarce.

Some aspects of data will also be presented visually, to represent the weighting of evidence across the different variables in the following categories:

- expert opinion vs research
- diagnosis (if provided) of YO
- context of YJS interaction

As stipulated by scoping review guidelines, this review will describe the type rather than judge the quality of evidence. The presentation of results is likely to be refined towards the end of the review, once the content of included studies becomes clear (Peters et al., 2017).

List of Abbreviations

DLD	Developmental Language Disorder
SLT	Speech and Language Therapist
YJS	Youth Justice System
YO	Young Offender

Declarations

Conflicts of interest: The authors declare no conflict of interest.

Funding: The first author is funded by the National Institute of Health Research to complete a Predoctoral Clinical Academic Fellowship [ref. ICA-PCAF-2018-01-102], of which this review is a part. The author acknowledges her employer, Homerton University Hospital NHS Foundation Trust, for hosting the award. The views expressed in this publication are those of the authors and not those of the NHS, National Institute for Health Research or the Department of Health.

Authors' contributions: AS and SB developed the scoping review proposal, and KB provided guidance. AS and EER carried out the review. AS wrote the manuscript. All authors read and approved the final manuscript.

Acknowledgments: The authors would like to acknowledge Dr Steven Bloch for his feedback on this protocol and Professor Priscilla Harries for her guidance on review methods.

References

- Anderson, S. A. S., Hawes, D. J., & Snow, P. C. (2016). Language impairments among youth offenders: A systematic review. *Children and Youth Services Review*, 65, 195–203. https://doi.org/10.1016/j.childyouth.2016.04.004
- Arksey, H., & O'Malley, L. (2005). Scoping studies: towards a methodological framework. *International Journal of Social Research Methodology*, 8(1), 19–32. https://doi.org/10.1080/1364557032000119616
- Bishop, D. V. M., Snowling, M. J., Thompson, P. A., Greenhalgh, T., Adams, C., Archibald, L., et al. (2017). Phase 2 of CATALISE: a multinational and multidisciplinary Delphi consensus study of problems with language development: Terminology. *Journal of Child Psychology and Psychiatry and Allied Disciplines*, 58(10), 1068–1080. https://doi.org/10.1111/jcpp.12721

- Bryan, K., & Gregory, J. (2013). Perceptions of staff on embedding speech and language therapy within a youth offending team. *Child Language Teaching and Therapy*, *29*(3), 359–371. https://doi.org/http://dx.doi.org/10.1177/0265659013482930
- Cooper, P., & Wurtzel, D. (2013). A day late and a dollar short: In search of an intermediary scheme for vulnerable defendants in England and Wales. *Criminal Law Review*, (1), 4–22. http://pennycooper.co.uk/wp-content/uploads/2018/05/Cooper-Wurtzel-2013-Intermediaries-and-Defendants-.pdf
- Gregory, J., & Bryan, K. (2011). Speech and language therapy intervention with a group of persistent and prolific young offenders in a non-custodial setting with previously undiagnosed speech, language and communication difficulties. *International Journal of Language & Communication Disorders*, 46(2), 202–215. https://doi.org/http://dx.doi.org/10.3109/13682822.2010.490573
- Hopkins, T., Clegg, J., & Stackhouse, J. (2018). Examining the association between language, expository discourse and offending behaviour: an investigation of direction, strength and independence. *International Journal of Language & Communication Disorders*, 53(1), 113–129. https://doi.org/10.1111/1460-6984.12330
- Humber, E., & Snow, P. C. (2001). The oral language skills of young offenders: A pilot investigation. *Psychiatry, Psychology and Law, 8*(1), 1–11. https://doi.org/10.1080/13218710109524999
- Kippin, N. R., Leitão, S., Watkins, R., Finlay-Jones, A., Condon, C., Marriott, R., ... Bower, C. (2018). Language diversity, language disorder, and fetal alcohol spectrum disorder among youth sentenced to detention in Western Australia. *International Journal of Law* and Psychiatry, 61, 40–49. https://doi.org/10.1016/j.ijlp.2018.09.004
- Lavigne, M., Law, U. W., Remington, S., Center, F. J. R., & Rybroek, G. J. (2011). Breakdown in the Language Zone: The Prevalence of Language Impairments among Juvenile and Adult Offenders and Why It Matters. UC Davis Journal of Juvenile Law and Policy, 15(1), 37–124. Retrieved from http://ssrn.com/abstract=1663805Electroniccopyavailableat:http://ssrn.com/abstract=166 3805http://ssrn.com/abstract=1663805
- Ministry of Justice. (2009). Crossing the Communication Divide : A toolkit for prison and probation staff working with offenders who experience communication difficulties, (200943), 1–65. Retrieved from

http://www.rcslt.org/about/docs/crossing_the_communication_divide

Ministry of Justice. (2011). Achieving Best Evidence in Criminal Proceedings Guidance on interviewing victims and witnesses, and guidance on using special measures. Retrieved from

https://www.cps.gov.uk/sites/default/files/documents/legal_guidance/best_evidence_in_criminal_proceedings.pdf

- Ministry of Justice. (2019). *The Criminal Procedure Rules and Criminal Practice Directions*. Retrieved from https://www.justice.gov.uk/courts/procedurerules/criminal/docs/2015/criminal-procedure-rules-practice-directions-april-2019.pdf
- Moher, D., Liberati, A., Tetzlaff, J., & Altman, D. G. (2009). Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. *Journal of Clinical Epidemiology*, 62(10), 1006–1012. https://doi.org/10.1016/j.jclinepi.2009.06.005
- Norbury, C. F., Gooch, D., Wray, C., Baird, G., Charman, T., Simonoff, E., ... Pickles, A. (2016). The impact of nonverbal ability on prevalence and clinical presentation of language disorder: evidence from a population study. *Journal of Child Psychology and Psychiatry*, 57(11), 1247–1257. https://doi.org/10.1111/jcpp.12573

- O'Brien, R., Goldberg, S. E., Pilnick, A., Beeke, S., Schneider, J., Sartain, K., ... Harwood, R. H. (2018). The VOICE study – A before and after study of a dementia communication skills training course. *PLOS ONE*, *13*(6), e0198567. https://doi.org/10.1371/journal.pone.0198567
- Peters, M., Godfrey, C., Mcinerney, P., Baldini, C., Khalil, H., & Parker, D. (2017). Chapter 11: Scoping reviews. In *Joana Briggs Institute Reviewer's Manual*. https://wiki.joannabriggs.org/display/MANUAL/JBI+Reviewer%27s+Manual
- Royal College of Speech and Language Therapists. (2019). Justice Overview. Retrieved May 30, 2019, from https://www.rcslt.org/speech-and-language-therapy/where-sltswork/justice#section-2
- Sanger, D., Moore-Brown, B., Magnuson, G., & Svoboda, N. (2001). Prevalence of language problems among adolescent delinquents: A closer look. *Communication Disorders Quarterly*, 23(1), 17. https://doi.org/http://dx.doi.org/10.1177/152574010102300104
- Snow, P. C. (2019). Speech-Language Pathology and the Youth Offender: Epidemiological Overview and Roadmap for Future Speech-Language Pathology Research and Scope of Practice. *Language, Speech, and Hearing Services in Schools*, 50(2), 324–339. https://doi.org/10.1044/2018_LSHSS-CCJS-18-0027
- Snow, P. C., Bagley, K., & White, D. (2018). Speech-language pathology intervention in a youth justice setting: Benefits perceived by staff extend beyond communication. *International Journal of Speech-Language Pathology*, 20(4), 458–467. https://doi.org/10.1080/17549507.2017.1297484
- Snow, P. C., & Powell, M. B. (2005). What's the story? An exploration of narrative language abilities in male juvenile offenders. *Psychology, Crime & Law*, 11(3), 239–253. https://doi.org/10.1080/1068316042000209323
- Snow, P. C., & Powell, M. B. (2008). Oral Language Competence, Social Skills and Highrisk Boys: What are Juvenile Offenders Trying to Tell us? *Children & Society*, 22(1), 16–28. https://doi.org/10.1111/j.1099-0860.2006.00076.x
- Snow, P. C., & Powell, M. B. (2011). Oral language competence in incarcerated young offenders: Links with offending severity. *International Journal of Speech-Language Pathology*, *13*(6), 480–489. https://doi.org/10.3109/17549507.2011.578661
- Snow, P. C., Powell, M. B., & Sanger, D. D. (2012). Oral Language Competence, Young Speakers, and the Law. *Language Speech and Hearing Services in Schools*, 43(4), 496– 506. https://doi.org/10.1044/0161-1461(2012/11-0065)
- Snow, P. C., & Sanger, D. D. (2010). Restorative Justice conferencing and the youth offender: exploring the role of oral language competence. *International Journal of Language & Communication Disorders*, 46(3), 324–333. https://doi.org/10.3109/13682822.2010.496763
- Snow, P. C., & Woodward, M. N. (2017). Intervening to address communication difficulties in incarcerated youth: A Phase 1 clinical trial. *International Journal of Speech-Language Pathology*, 19(4), 392–406. https://doi.org/10.1080/17549507.2016.1216600
- Toolkits The Advocate's Gateway. Retrieved August 30, 2019, from https://www.theadvocatesgateway.org/toolkits
- Winstanley, M., Webb, R. T., & Conti-Ramsden, G. (2019). Psycholinguistic and socioemotional characteristics of young offenders: Do language abilities and gender matter? *Legal and Criminological Psychology*, lcrp.12150. https://doi.org/10.1111/lcrp.12150
- World Health Organization. (2018). *ICD-11 for mortality and morbidity statistics*. *Retrieved June*. https://icd.who.int/browse11/l-m/en#/http://id.who.int/icd/entity/33269655