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Chapter 3: Considering Commonalities in Stuttering Therapy

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Abstract: There has been much discussion about whether one treatment approach is better than another approach. In this chapter, we propose that the quest for the 'best therapy' is unlikely to provide us with the knowledge we seek. Instead, we suggest that it is better to ask ourselves why a treatment approach is effective and why certain approaches appear to work better with particular clients. We argue that this might be explained by the contextual model, which suggests that it is the similarities between treatment approaches, rather than the differences which account for successful outcomes.

Introduction

There has been much discussion within our field about whether one treatment approach is somehow better than another approach. For example, there have been differences of opinion about so-called 'stutter-more-fluently' versus 'speak-more-fluently' approaches with teens and adults, counselling versus direct speech work, and indirect versus direct approaches with young children. Underpinning all of these discussions is the assumption that one therapy is or will be more effective than another. In this chapter, we propose that the quest for the 'best therapy' is unlikely to provide us with the knowledge we seek. Instead, we suggest that it is better to ask ourselves why a treatment approach is effective and why certain approaches appear to work better with particular clients.

In their systematic review, Baxter et al. (2015) concluded that even though there has been much research into stuttering treatment efficacy and effectiveness, there is no evidence that one programme yields better results than another. In this chapter, we argue that this might be explained by the contextual model, which suggests that it is the similarities between treatment approaches, rather than the differences which account for successful outcomes. We will use programmes that are currently researched and widely available for treating young children who stutter to provide examples of why this view may be applicable in our field. Finally, we will conclude with some important implications for both researchers and clinicians.

The Contextual Model

A medical model perspective is often used to explain why something works in treatment, where specific treatment techniques or methods are regarded as the reason for change. This medical model has been the centre of debate because in the field of clinical psychology, the treatment itself was found to account for little outcome variance. While a

series of meta-analyses showed that therapy is better than no therapy, to the surprise of many researchers, they also showed that one approach does not lead to a significantly better outcome than another (Wampold, 2015).

With rare exception, research has uncovered little significant difference among different psychotherapeutic approaches, an observation that has been described as "the dodo effect". Herder et al. (2006) found similar results in a meta-analysis of behavioural treatments for stuttering. Their results support the claim that intervention for stuttering results in an overall positive effect, but also show that no one treatment approach demonstrates significantly greater effects over another treatment approach.

Although specific techniques or methods were not found to be associated with the success of psychological treatment, Wampold et al. (2015) did identify four specific factors that are common across a variety of treatment approaches; these factors account for much of the variance in treatment outcome. These "common" or "therapeutic" factors that facilitate and sustain change are: (a) the nature of the working alliance formed between the client and the clinician (e.g., emotional bonding, shared goal-setting, agreement on methods); (b) the characteristics of the client and his/her environment (e.g., temperament, family support); (c) the client's and the clinician's hopefulness that change can happen (e.g., belief that treatment will work); and (d) the specific treatment techniques (in stuttering treatment, these may include desensitization or easy onsets, etc.). Wampold et al. have argued that the first three factors contribute more to outcome of treatment than the specific techniques used.

[Figure 3.1 here]

The contextual model, a relationship model based on these common factors, states that there are three pathways through which treatment effects (i.e. symptom reduction and better quality of life) can be achieved (see Figure 1). These pathways or relationship factors

integrate common factors and specific factors. Although some treatments may emphasize one pathway over another, to be optimally effective, any treatment should utilize all three pathways (Wampold, 2017). The first pathway is based on the fact that an understanding relationship between an empathic and caring clinician and clients and their environment adds to the client's well-being. Critical to the expectation pathway is that the client and client system genuinely believe that the explanations provided by the clinician about the disorder and the related treatment actions will result in addressing the problem. This also entails that the clinician and the client (system) need to agree on treatment goals and specific treatment actions, two critical components of therapeutic alliance. Finally, the contextual model states that specific therapeutic actions (third pathway) with clearly structured (sub)goals not only create certain expectations but also result in changes remediating existing problems.

Several components of this contextual model have been studied in the stuttering field. For example, the importance of a trusting therapeutic alliance was documented both in adults who stutter (Sønsterud et al., 2019) and in young children who stutter (Coleman & Kaplan, 1990). Limited understanding of the clinical process or a mismatch between child and family expectations resulted in a poor therapeutic alliance and a higher risk for dropping out of therapy. Children and their families were also found to respond more positively to treatment when informed about various topics, including the nature and etiology of stuttering, the content and structure of therapy, specific roles for the client and clinician, and expected outcomes from intervention.

Could this contextual model be relevant and applicable to stuttering therapy?

A number of therapies and approaches are recommended for stuttering across the lifespan, with differing levels of empirical evidence to support them (Baxter et al., 2015; Brignell et al., 2021). The programmes that are most well-known and widely available for clinicians to study, and those with the greatest amount of efficacy and effectiveness research,

are focused on young children. In order to consider the potential relevance of the contextual model, we have selected four of these programmes as a basis for discussion. The published details of each should be explored further by the reader; the summaries below highlight the main features:

1) The Lidcombe Program (LP; Onslow et al., 2020)

Theoretical underpinning: stuttering is a behaviour that can be reduced through operant conditioning principles.

Aim: For young children who stutter to achieve no stuttering or almost no stuttering.

Methods: Parents are taught to provide 'verbal contingencies' to their children's speech, beginning in structured practice sessions and then in conversation. When children are fluent, parents praise and request self-evaluation and/or acknowledge fluent speech. When children stutter, parents may acknowledge the stuttering or request that the child self-corrects. There should be substantially more praise for fluency than requests for self-correction. Parents collect daily severity ratings, and when the child achieves zero or little stuttering they enter a maintenance phase.

Evidence: Children who receive the LP show significantly reduced stuttering frequency compared to those who do not and the intervention is as effective when delivered in groups and via telehealth (see Brignell et al., 2021 for review).

2) RESTART-Demands and Capacities Model (RESTART-DCM; Franken & Putker-de Bruijn, 2007)

Theoretical underpinning: Stuttering is a consequence of a mismatch between the demands and capacities that a child experiences at each moment in time.

Aim: To decrease demands in the environment and increase the child's capacities for speaking fluently, creating a balance that results in fluent speech (de Sonneville-Koedoot et al., 2015)

Methods: A multifactorial assessment is conducted to identify the child's capacities for fluent speech and the communication demands placed on them. In Step 1, parents are taught, through observation of the clinician, to reduce linguistic and emotional demands so that they match the child's capacities for fluency. Parents change their interaction style, firstly during clinic sessions and then at home during Special Times. In Step 2 (if necessary) the focus is on increasing speech motor, language, and emotional capacities. A small proportion of children go to Step 3, when they are taught strategies to modify the moment of stuttering and increase tolerance to stuttering.

Evidence: RESTART-DCM is as effective and as cost-effective as the LP (de Sonneville-Koedoot et al., 2015) across a range of outcomes (including stuttering frequency, speech attitude, and quality of life), with a similar number of sessions for each (mean 22 and 19 for LP and RESTART-DCM respectively).

3) Palin Parent-Child Interaction Therapy (Palin PCI; Kelman & Nicholas, 2020)

Theoretical underpinning: Stuttering is a multifactorial condition, with physiological, linguistic, emotional, and environmental factors interacting with the genetic predisposition to stutter.

Aims: To reduce stuttering frequency and/or struggle; to reduce the impact of the stuttering on child and parents; to increase parents' knowledge of stuttering and confidence in how to support their child.

Methods: A comprehensive assessment is conducted to identify factors that influence fluency, stuttering, and confident communication. Therapy is made up of Interaction, Family,

and Child Strategies. Parents first identify interaction strategies that are relevant for their child through video-observation of parent-child interaction, then practise these in five-minute play sessions (Special Time) at home. The more indirect components (Interaction and Family strategies) are introduced over six therapy sessions, with more direct Child Strategies introduced if necessary afterwards.

Evidence: The therapy is effective in reducing stuttering frequency and impact, as well as increasing parents' knowledge and confidence to support their children. Benefits are maintained for up to one year post therapy (Millard et al., 2008; 2009; 2018).

4) Comprehensive / Family-Focused Treatment Approach (Yaruss & Reeves, 2017)

Theoretical underpinning: Stuttering is the result of the interaction of child factors, interpersonal stressors, and environmental stressors, influenced by underlying genetic and neurological differences.

Aims: To provide parents with counseling and support; to support the development of fluent speech; and to develop healthy attitudes to stuttering in both parent and child.

Methods: There are three elements within this programme: 1) In parent-focused treatment, parents are educated about stuttering, how to reduce communicative stressors, and how to establish a fluency-facilitating environment. 2) Parent and child understanding and acceptance of stuttering is addressed through counselling, education, and desensitization to stuttering. These less-direct components provide the foundations for 3) direct child communication modifications, if needed, which include speech modification, stuttering modification, and communication skills development.

Evidence: Children demonstrated a significant reduction in stuttering frequency post treatment which was maintained over time, with a mean number of 12 sessions. Parents rated high levels of satisfaction with the programme (Yaruss et al., 2006).

Differences in the approaches

Programmes are described and taught with an emphasis on features that the authors consider to be important and which make each programme identifiable and distinct from others. Treatment fidelity (how closely the clinician adheres to the programmes principles and methods) is emphasised within the research and is considered to be critical. Once the efficacy and effectiveness of an intervention has been established, the next stage in the research process is to explore the critical components of the therapy, a stage that only the LP researchers have achieved thus far. Unsurprisingly, the critical components are assumed to be those that are the key characteristics of the programme that set it apart from others.

Certainly, there are differences between these approaches, e.g., in their theoretical perspectives. While the LP considers stuttering within a behavioural framework, others programmes take a more multifactorial view of stuttering. This requires a more comprehensive assessment process and a more flexible approach to the content of the therapy.

The goals of the approaches also differ. The LP seeks to eliminate or reduce stuttering to a low level. Both RESTART-DCM and the LP continue until 'acceptable fluency levels' are reached. Palin PCI and the Comprehensive Approach seek to reduce struggling and increase fluency, but there is a greater emphasis on communication and participation. A reduction in stuttering *impact* is considered critical for successful outcome, both for parents and children, in these two approaches, and the importance of addressing the needs of parents is explicit and evaluated as part of therapy outcome.

The methods have their origins in differing counselling methods, including operant conditioning, behaviour modification, family systems therapies, strengths versus deficit-focused approaches, and Cognitive Behaviour Therapy. How parents are supported differs in style, with parents being 'taught', 'instructed', 'shown' or 'facilitated to find their own' targets within therapy. Palin PCI is notable in its inclusion of both parents in therapy being usual practice.

Regarding direct work on speech production: in the LP, "children are not instructed to change their customary speech pattern in any way;" however, in the other programmes, the changes that children make are explicit. Activities for desensitisation and acceptance of stuttering are explicitly included in both Palin PCI and the Comprehensive Approach, and the value of the therapy for developing skills to manage stuttering are discussed throughout.

Similarities in the approaches

Although it is true that numerous differences can be identified in the various treatment approaches as reviewed above, it is also true that similarities exist. These similarities are in the goals of the treatments, the methods employed to achieve those goals, the adaptations that clinicians are taught to make to ensure the success of treatment, and also in the measured outcomes and demonstrated efficacy of the treatments. For example, we have noted that the approaches described above differ in the degree to which they emphasize increased fluency and decreased stuttering in the broader context of effective communication. Still, the fact remains that all of the approaches do address these aspects of speech production, either as primary goals or as part of a broader set of desired outcomes. This is not surprising, given that the overarching purpose of all of these therapies is to alleviate stuttering and the problems that may be associated with stuttering. What is notable, however, is that all four programmes highlighted take as a fundamental assumption the notion that it *is* possible for

children to increase their fluency and improve their communication and that it is possible to achieve positive change through intervention. None of the programmes automatically presume that a young child who stutters will necessarily continue to do so into adulthood, and all of the programs presume that therapy can be beneficial for the child and the parents.

In addition to starting with the assumption that change in children's fluency *is* possible, all four programmes favour early intervention instead of taking a "wait and see" approach to determining the appropriate timing for therapy. The approaches may differ in terms of the specific triggers that they use for determining that the time is right to initiate therapy (e.g., assessment of "risk factors"). Still, none of the four approaches advocate lengthy periods of observation or waiting to see if a child happens to "outgrow" stuttering on their own, as was once the case, and all four emphasize the importance of accounting for parental concerns in deciding in favour of treatment. These programmes also prefer early intervention in an attempt to prevent the development of chronic stuttering and/or the potential long-term consequences of stuttering and to ensure that the child and parents are supported as the child's fluency development unfolds over time.

Even more to the point, the treatments all share similarities in how they go about achieving their goals of improved speech fluency and communication. For example, all of the treatments are founded on significant involvement of the parents. In fact, all of the treatments are essentially parent-administered, at least in the early stages. Though what the programmes ask or teach parents to do may differ based on the orientation the programmes hold toward the nature of stuttering, they still all have significant parent training and counselling components. This is particularly seen in Palin PCI, Restart-DCM, and the Comprehensive Approach, each of which devote extensive time and effort to helping parents learn about stuttering and the factors that may affect their child's speech fluency and communication as a whole. These programmes also involve ample attention to exploring parents' own feelings

and attitudes toward stuttering and to helping parents come to terms with their fears and concerns about their child's present and future stuttering. The programmes also rely on this parent foundation to support the child's own development of positive communication attitudes, so that the child will continue to speak freely and without fear even if the stuttering should persist. Clearly, the LP approaches parent involvement differently. There, the focus is on helping parents learn to provide contingencies in the appropriate fashion and on the correct schedule (although recent research has questioned the necessity of such contingencies; see Donaghy et al., 2020). Still, the fact that parent participation is fundamental to the treatment highlights the fact that parent involvement and time spent focused on talking and communication with the child is a consistent, common factor in a range of different early childhood stuttering therapy approaches.

Another key similarity - and one that stands out in light of historical views about stuttering therapy for young children - is the fact that all four approaches highlighted in this paper directly acknowledge, discuss, and address stuttering with both the parents and children at some point in the therapy process. In the LP, for example, parents are taught early in therapy to identify moments of stuttered versus fluent speech, so that they can provide appropriate contingencies. In the Comprehensive Approach, parents are taught to acknowledge moments of stuttering in a supportive and open way, directly letting the child know that stuttering is nothing to be afraid of or ashamed of. Parents are taught to provide similar supportive comments as appropriate in the other approaches, as well. This is notable, because such direct discussion of stuttering would not have been favoured in so-called "indirect" therapy approaches that were common in the later portion of the 20th century. Again, the specific messages provided to children by parents differ depending upon the programme: LP involves praise for fluency whereas other programmes may involve praise for communication attempts, regardless of whether or not they are fluent. Still, none of the

approaches shy away from addressing speaking or stuttering directly, as needed, thereby highlighting the now-common, but once less-accepted belief, that it is okay to talk about stuttering with young children.

Further commonalities can be seen in the everyday application of the treatments: e.g., all of these approaches highlight the importance of individualizing treatments for each unique child's and family's needs. In addition, each approach involves making changes to the child's communication environment (whether in the short term or long term) in order to increase the likelihood that the child will produce more fluent speech. This latter point is interesting, because changes in communication environment are explicitly included in the Palin PCI, RESTART-DCM, and Comprehensive Approach. In apparent contrast, earlier writings about the LP excluded changing the child's linguistic context to enhance fluency; however, more recent writing has shown that clinicians may indeed make changes to the child's communication environment (e.g., the use of closed or binary questions, language contingent with the situation, and the impact of the choice of toy, all possible areas of focus in the more indirect components of other therapies) in order to elicit more fluent speech which can then be reinforced via appropriate contingencies (Onslow et al., 2021).

Another key commonality across approaches is one that matches what has been learned from studies of the commonalities in various psychotherapeutic and counselling approaches: all four approaches described involve the development of a therapeutic alliance between the parents and the clinician and, as more-direct aspects of therapy are incorporated, between the child and the clinician. Fostering this therapeutic alliance involves building a supportive relationship between client and clinician; one in which the client feels comfortable sharing their fears and concerns while the clinician provides understanding, validation, support, and, as needed, guidance. Again, the ways in which this alliance are accomplished differ depending upon the specific approach, but relationship-building is still at the heart of

the clinical interaction. For example, the Palin PCI, RESTART-DCM, and Comprehensive Approach explicitly focus on identifying the needs of parents (and, again as needed, children themselves) for counselling and support. This is accomplished through various counselling strategies including scaling activities, guided interviewing, and discussions about hopes and dreams for the child. Although the LP appears to focus more on educating parents about the steps involved in providing contingencies, it is clear that parents still develop a trusting relationship with their clinician, who provides a sounding board and guide as the parent seeks to learn how to support their child's speech production. As shown in common factors research outside of our field, the therapeutic alliance is the factor that contributes most to the positive changes associated with therapy, so the development of this relationship in these therapy approaches is particularly important and relevant for our consideration of commonalities across approaches.

What does this mean for clinicians and researchers?

The empirical evidence and the understanding of factors that contribute to successful outcomes within the Contextual Model suggest that any of these therapies has potential to be 'successful' for an individual child who stutters. The Contextual Model would suggest that the clinician should pay particular attention to factors that are similar across the programmes to maximise outcomes. All the therapies emphasise the need for training; the Contextual Model also highlights the need for clinicians to be knowledgeable and have confidence in the approach they are using. Having a strong rationale, experience in using a programme, and the belief that it will be helpful for the client are linked to improved outcomes. Therefore, proper training in one approach that fits a clinician's philosophical perspective is the first step.

Working with parents is a clear similarity across the therapies, so any intervention with this population should involve parents as key participants in the process. Parents are

involved to deliver the therapy and support the child *and* to address their own needs, worries, and confidence. Reinforcing the parent-child relationship, encouraging openness in the family, and fostering a positive attitude to stuttering will also be key.

Working with families to foster a positive therapeutic relationship is critical. Clinicians can help parents understand and believe in what they are doing by developing shared and realistic goals modified and adapted according to the child's need, temperament and response to treatment; helping parents explore and understand the rationale for the goals and methods; and providing a learning environment that is supportive, motivating, and reinforcing will facilitate child and parent engagement and help parents become increasingly less reliant on the clinician.

Conclusion

The most important message to take away from this review is that there is choice: choice for clinicians in terms of which approach they are educated to practise in and use, and choice for parents about which therapy they think will best meet the needs of their family. This does not mean that whatever a clinician will do will necessarily work. Method and procedure are still important, but regardless of the method or procedure, a strong therapeutic alliance is a prerequisite for therapy. Clients and parents need to be informed about the nature and the aetiology of stuttering, as well as the specific treatment goals and actions involved in the treatment. In addition, they need to be cogently guided through the different treatment steps. When one approach is not having the expected or desired effect, there are options to consider. In the future, we may have better data to help us determine whether one approach will be better than another for an individual child At present, we can be confident in the knowledge that we can help children communicate with greater confidence and more ease while also meeting the needs of parents, and we should not expect to achieve this in just one

way.

References

Baxter, S., Johnson, M., Blank, L., Cantrell, A., Brumfitt, S., Enderby, P., & Goyder, E. (2015). The state of the art in non-pharmacological interventions for developmental stuttering. Part 1: a systematic review of effectiveness. *International journal of language & communication disorders*, *50*(5), 676-718. https://doi.org/10.1111/1460-6984.12171

Brignell, A., Krahe, M., Downes, M., Kefalianos, E., Reilly, S., & Morgan, A. (2021). Interventions for children and adolescence who stutter: A systematic review, meta-analysis, and evidence map. *Journal of Fluency Disorders*, 105843. https://doi.org/10.1016/j.jfludis.2021.105843

Coleman, D. & Kaplan, M. (1990). Effects of pretherapy video preparation on child therapy outcomes. *Professional Psychology: Research and Practice, 21(3),* 199-203. https://doi.org/10.1037/0735-7028.21.3.199

de Sonneville-Koedoot, C., Stolk, E., Rietveld, T., & Franken, M. C. (2015). Direct versus indirect treatment for preschool children who stutter: The RESTART randomized trial. *PloS one*, *10*(7), e0133758. https://doi.org/10.1371/journal.pone.0133758

Donaghy, M., O'Brian, S., Onslow, M., Lowe, R., Jones, M., & Menzies, R. G. (2020). Verbal Contingencies in the Lidcombe Program: A Noninferiority Trial. *Journal of Speech, Language, and Hearing Research*, *63*(October), 1–13. https://doi.org/10.1044/2020_jslhr-20-00155

Franken, M. C., & Putker-de Bruijn, D. (2007). Restart-DCM method. *Treatment protocol developed within the scope of the ZonMW project: Cost-effectiveness of the Demands*

and Capacities Model based treatment compared to the Lidcombe programme of early stuttering intervention: Randomised trial.

Herder, C., Howard, C., Nye, C., & Vanryckeghem, M. (2006). Effectiveness of behavioral stuttering treatment: A Systemic Review and Meta-Analysis. *Contemporary Issues in Communication Science and Disorders*, 33, 61-73. https://doi.org/10.1044/cicsd_33_S_61

Kelman, E., & Nicholas, A. (2020) *Palin Parent-Child Interaction Therapy for Early Childhood Stammering (2nd Edition)*. London: Routledge. https://doi.org/10.4324/9781351122351

Millard, S. K., Edwards, S., & Cook, F. M. (2009). Parent-child interaction therapy: Adding to the evidence. *International Journal of Speech-Language Pathology*, 11(1), 61-76. https://doi.org/10.1080/17549500802603895

Millard, S. K., Nicholas A., & Cook F. M. (2008). Is parent-child interaction therapy effective in reducing stuttering? *Journal of Speech, Language and Hearing Research*, 51(3), 636-650. https://doi.org/10.1044/1092-4388(2008/046)

Millard, S. K., Zebrowski, P., & Kelman, E. (2018). Palin parent–child interaction therapy: The bigger picture. *American journal of speech-language pathology*, *27*(3S), 1211-1223. https://doi.org/10.1044/2018_AJSLP-ODC11-17-0199

Onslow, M., Webbeter, M., Harrison, E., Arnott, S., Bridgman, K., Carey, B., Sheedy, S., O'Brian, S., MacMillan, V., Lloyd, W., & Hearne, A. (2021, December 6). The Lidcombe Program treatment guide. Retrieved from https://www.uts.edu.au/sites/default/files/2021-

04/Lidcombe%20Program%20Treatment%20Guide%202021%20v1.3%202021-04-27.pdf

Onslow, M., Webber, M., Harrison, E., Arnott, S., Bridgman, K., Carey, B., Sheedy, S., O'Brian, S., MacMillan, V., Lloyd, W., & Hearne, A. (2020). *The Lidcombe Program Treatment Guide November 2020 (Version 1.1)*. Downloaded from https://www.uts.edu.au/sites/default/files/2020-12/Lidcombe%20Program%20Treatment%20Guide%202020%20v1.1%202020-12-07_1.pdf

Sønsterud, H., Kirmess, M., Howells, K., Ward, D., Feragen, K. B., Halvorsen, M. S. (2019). The working alliance in stuttering treatment: a neglected variable? *International Journal of Language and Communication Disorders,* 54, 606-619. https://doi.org/10.1111/1460-6984.12465

Wampold B. E. (2015). How important are the common factors in psychotherapy? An update. *World psychiatry*, 14(3), 270–277. https://doi.org/10.1002/wps.20238

Wampold, B. E. (2017). What should we practice?: A contextual model for how psychotherapy works. In T. Rousmaniere, R. K. Goodyear, S. D. Miller, & B. E. Wampold (Eds.), *The cycle of excellence: Using deliberate practice to improve supervision and training (pp. 49–65).* Wiley-Blackwell. https://doi.org/10.1002/9781119165590.ch3

Yaruss, J. S., Coleman, C., & Hammer, D. (2006). Treating preschool children who stutter: Description and preliminary evaluation of a family-focused treatment approach. *Language, Speech, and Hearing Services in Schools*, 37, 118-136. https://doi.org/10.1044/0161-1461(2006/014)

Yaruss, J. S., & Reeves, N. (2017). *Early childhood stuttering therapy: A practical guide.* McKinney, TX: Stuttering Therapy Resources, Inc.