

## THE USE OF MULTIPLE PSYCHOLOGICAL TECHNIQUES IN THE MANAGEMENT OF STUTTERING: A CASE REPORT

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### Abstract

Stuttering refers to a disruption of the fluency of verbal expression which is characterized by involuntary audible or silent repetitions or prolongation of sounds or syllables. It is often a source of embarrassment and frustration to the speaker and has been reported to adversely impact on quality of life. Stuttering may be classified into developmental, neurogenic and psychogenic types with the developmental being the most common. It cuts across diverse social, economic, ethnic and age groups with a higher prevalence in males than females. This paper presents the use of multiple psychological techniques in the management of stuttering. Although there are existing psycho-therapeutic models for managing stuttering this account provides a fresh perspective. It is not driven by a particular theoretical viewpoint, rather in an eclectic fashion it marries simple techniques that can ordinarily be overlooked. The success of the application of these techniques in the present case is a call to clinical psychologists to look beyond the "tried and tested" and explore new horizons.

### Introduction

The Biblical account of Moses' "slowness of speech and tongue" (Exodus 4: 10-13) probably provides the earliest description of stuttering and its related avoidance behaviour. Stuttering is defined as a disruption of the fluency of verbal expression. It is characterized by involuntary audible or silent repetitions or prolongation of sounds or syllables (Wingate, 1964). Stutterers usually use secondary behaviours such as eye blinking, jaw jerking and head or other involuntary movements to minimize the increasing severity of stuttering, these learned mannerisms often add to embarrassment and fear of speaking. Older children and adults often develop additional secondary

behaviours to hide stuttering. These linguistic escape and avoidance behaviours include word substitutions, use of interjections and sentence revisions.

Stuttering is classified as developmental, neurogenic or psychogenic. Developmental stuttering usually appears in children between the age of three and eight years and often disappears before puberty. It accounts for more than 80 percent of stuttering cases in the general population (Ludlow, 2000). Neurogenic stuttering (also referred to as acquired stuttering) follows a neurologic event such as traumatic brain injury, stroke or other brain damage. A salient differentiating factor between developmental and acquired stuttering is that with the developmental form, stuttering occurs at the beginning of words and the secondary behaviour are more obvious than with acquired stuttering (Prasse and Kikano, 2008). Psychogenic stuttering is rare and involves rapid

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repetition of initial sounds. It usually occurs in adults with a history of psychiatric problems following a psychological event or emotional trauma with no other known etiology (Mahr and Leith, 1992).

Stuttering has a hereditary component as suggested by the report of a concordance rate of about 70 percent for monozygotic twins, about 30 percent for dizygotic twins and 18 percent for siblings of the same sex (Andrews et al, 1983; Fensenfeld, 2000) The prevalence of stuttering is similar across different social, economic, cultural and ethnic groups (Craig, Hancock, Tran, Craig and Peters, 2002). However, research evidence shows that there is a higher incidence of stuttering in males than in females (Yairi, 1992).

Overtime a number of theories about the origin of stuttering and corresponding treatment approaches have been proposed. In ancient Greece "dryness of the tongue" was thought to be the cause of stuttering. In the 19<sup>th</sup> Century stuttering was attributed to abnormalities of the speech apparatus and treatment was correspondingly based on extensive plastic surgery, tongue weights or mouth prostheses (Katz, 1977). In the 20<sup>th</sup> century, stuttering was primarily thought to be a psychogenic disorder. Consequently, psychoanalytical approaches and behaviour therapy were employed as treatment strategies (Plankers 1999). Other theories proposed that stuttering is a learned behaviour usually resulting from a disadvantageous environment particularly parental reaction to normal childhood dysfluencies (Johnson, 1955).

Stuttering presents several burdens; it can lead to physical effects such as tense muscles, emotional effects like embarrassment and frustration. Persons who stutter may also feel stigmatized and perceived as less capable compared to those

who do not stutter. Klein and Hood (2004) in a study of more than 200 adults who stutter found that more than 70 percent of participants believed that stuttering adversely impacted their chance of being hired or promoted, more than 33 percent thought that stuttering interfered with their job performance and 20 percent had declined a job promotion because of stuttering. Other findings indicate that stuttering does negatively impact quality of life in the vitality, social functioning, emotional functioning and mental health status domain (Craig, Blumgart and Tran, 2009).

The management of stuttering has remained challenging and there is a lack of consensus about therapy. A number of pharmacologic intervention studies have proved ineffective or have adverse effects (Brady,1991; Yairi,2005) Non pharmacologic approaches such as self-monitoring of speech and symptom reduction instead of elimination seem to be the current focus (Venkatagiri (2005); Bothe, Davidow, Bramlett, Franic, Ingham, 2006). Families have also been noted to play a significant role in the management of stuttering in children. Ratner and Guitar (2006) reported that providing an environment that encourages slow speech, affording the child time to talk and modeling slowed and relaxed speech helps reduce stuttering events. They found that direct acknowledgement of stuttering in the form of contingencies such as "that was bumpy" or "that was smooth" makes preschool intervention effective. The Lidcombe approach has become popular in this regard; it involves parental praise for fluent speech in the child's daily speaking and occasional correction of stuttering (Woods, Shearsby, Onslow and Burnham (2002). Recent studies show that cognitive behaviour therapy (CBT) may help adults who stutter, it is believed that CBT can effectively decrease anxiety and social avoidance and increase engagement in everyday speaking situations (Menzies, Onslow, Packman and O'Brain, 2009).



### **Case Report**

Dee (real name withheld) is a 23-year-old self-referred male undergraduate of a Nigerian University; he came to therapy with a goal to overcome stuttering. (The client being an undergraduate in the school of Medicine is well informed about existing specialties hence he was able to assess the service directly without a need for a referral). According to him stuttering is a "source of great distress," it affects his confidence to the extent that he often feels like "hiding behind the door," avoiding class discussions because "the little I know, I am unable to say." The resultant effects are numerous; he sometimes claims he is sick to avoid verbal encounter with friends and classmates. More painfully, he claims stuttering leaves him "defenseless" as he cannot refute untrue statements sometimes made against him. In a bid to suppress his frustrations, he eats and sleeps more than he would have loved to and also finds it difficult to concentrate on his studies. Dee has not always suffered from stuttering, he boasts of how he used to make presentations in church gatherings as a young boy. He however, remembers having a friend "who cannot say a word without stuttering" and feels he must have "emulated him unconsciously." Dee's family history did not reveal anything remarkable.

Dee was enthusiastic all through the therapeutic sessions; he never missed an appointment. After a weekly one-hour therapeutic session for eight weeks using the techniques enumerated below, Dee was seen fortnightly for four weeks to check and maintain short-term therapeutic gains after which therapy was mutually terminated. Prior to the commencement of therapy he evaluated his stuttering tendency as 8/10, 10/10 being the worst possible scenario and 0/10 representing an absence of stuttering. At the end of eight weeks he evaluated himself as 2/10. The fortnightly follow-up

contact showed therapeutic gains were maintained.

### **Techniques**

The following techniques were applied in the course of therapy.

1. Deep muscle relaxation
2. Maintenance of eye contact
3. Deliberate slow speaking
4. Looking off the black spot
5. Mesaron technique

Every therapy session comprised of a 10-minute session of deep muscle relaxation training. All other techniques were introduced gradually as the client showed an appreciation of the tenets of the preceding technique. For verification the client maintained a note book where he discussed each technique as he best understood its relevance to the issue of stuttering. This approach to therapy was of tremendous benefit because it gave the client a premise to revisit issues discussed during therapy independently and thus in the therapist's opinion increased mastery of the techniques taught.

### **DEEP MUSCLE RELAXATION**

Deep muscle relaxation is a well-known technique for achieving a relaxed muscle tone; it eases the muscles thereby removing tension from the entire musculature when rightly carried out. The essence of introducing deep muscle relaxation in the present case is borne on the association that exists between stuttering and anxiety. Stuttering naturally evokes tension due to the embarrassment it causes the speaker; physiologically, this introduces a "sympathetic realm." The sympathetic division of the autonomous nervous system (ANS) prepares the body for "fight or flight." The call for action directs secretions of epinephrine and norepinephrine from the adrenal glands. This automatically leads to heightened physiological arousal like dilation of the pupils, faster breathing to allow in more oxygen and increased perspiration to cool the body. This is a



regular feature in the life of a person who stutters.

The introduction of deep muscle relaxation is therefore to bring about a parasympathetic functioning and train the client on the need to maintain this physiological disposition always. The parasympathetic division is the second division of the ANS which ensures that the body returns to its pre-energized state. The activation of this division helps the body to conserve energy. The parasympathetic division can be described as the basic housekeeping and body maintenance mechanism because its primary functions are to slow heart rate, lower blood pressure and increase digestion and elimination.

The basic assumption belying the application of this technique is simple. Stuttering increases anxiety, this stimulates the activation of the sympathetic division which in turn increases stuttering. On the other hand, deep muscle relaxation decreases anxiety as the para-sympathetic division is activated. This decreases muscle tone and in turn decreases stuttering. A simple model to demonstrate this is shown below.

Stuttering → ↑ Anxiety → ↑ Sympathetic activation → ↑ Stuttering  
Deep muscle relaxation → ↑ Para-sympathetic activation → ↓ Muscle tone → ↓ Stuttering

#### **Benefits of deep muscle relaxation**

- It reduces tension and anxiety.
- It makes the individual calm.
- It creates a psycho-physiological environment that enhances a smooth pace of speech.

#### **MAINTAINING EYE CONTACT**

The use of maintaining eye contact as a technique in the management of stuttering stems from the observation that persons who stutter often avoid eye contact when

speaking. Generally anxious persons often avoid eye contact during communication. The reason for this mannerism among persons who stutter may be associated with the embarrassment that stuttering evokes, thus avoiding eye contact becomes a defense and a way of "hiding." This frustrated posture always sends signals of "help me complete the line" to the listener. This further incapacitates the stutterer and his anxiety is heightened due to failure to deliver his/her speech smoothly. Conversely, a bold and confident speaker usually maintains eye contact as a way of capturing the attention of his/her audience. With appropriate maintenance of eye contact, a person who stutters learns to be in control of the situation rather than otherwise, he lets go of his deficiency and engages in something outside himself and so arrests the listener's attention. Based on this premise therefore, maintenance of eye contact in the management of stuttering is borne out of the conviction that a person who stutters will achieve the under listed benefits if he is rightly trained on how to maintain eye contact. It must be noted that the maintenance of eye contact without understanding the necessary psycho-therapeutic implications will not achieve much. Interestingly, when the client was first introduced to this technique it did not achieve much in the required direction. Success was eventually attained as the client got to understand that the maintenance of eye contact was not intended to be used as a "talisman" but rather as a strategy to achieve self confidence.

#### **Benefits of maintaining eye contact**

- It shows that the speaker is in charge and knows what he is saying, thus it keeps the listener attentive to the speaker thereby enforcing self confidence in the speaker.
- An increased self confidence serves as an antithesis to anxiety thereby reducing stuttering.



- The stutterer gets “distracted from the self” and the consciousness of stuttering as he concentrates on his listener rather on himself as hitherto.

### **DELIBERATE SLOW SPEAKING**

It can be observed that most people who stutter engage in rapid speech as a way of speaking up before they are stuck in between words, ironically, this increases the propensity of stuttering. “Fast speech” in this regard increases and reflects anxiety and as earlier stated, anxiety is highly implicated in stuttering. The essence of this technique is therefore to help the person who stutters come to terms with the wisdom of being a slow fluent speaker than a fast stutterer. This technique is buttressed with the popular wise saying which states that “slow and steady wins the race.” With the technique of deliberate slow speaking, the stutterer is trained to articulate his words slowly, when a word is said slowly and with ease it promotes a deliberate self created speaking rate. If such speaking rate is mastered the stutterer takes charge of his world, he is not rushed and he understands that his slowness is not borne out of sheer sluggishness, rather it is a conscious and calculated move to be above the situation.

#### **Benefits of deliberate slow speaking**

- It affords the speaker the privilege to set his own speaking rate.
- It positively aligns with parasympathetic functioning which is desired.
- It reduces the rate of having “stuck words” thereby reducing anxiety.
- It gives the speaker a time to rest in between words without undue attention.
- It increases confidence with its attendant implication as the speaker begins to feel and know he is in charge.

### **LOOKING OFF THE BLACK SPOT**

Stuttering can increase negative self consciousness; the stutterer is regularly reminded of how he has not done well enough. Often the stutterer's self judgment is worse than how on lookers judge him. The basis for the application of this technique is to train the stutterer to look away from the negative and low points in his speech. Rather than count how many times he stumbled on a word in the course of a conversation he is trained to count the success. The stutterer is actually trained to “look off the black spot.” Expectedly, this technique moves the stutterer from the position of a critical pessimist to a hopeful optimist. The benefits of optimism are well documented in the literature. The stutterer makes an objective appraisal of his efforts on an optimistic note. This is akin to seeing the same glass of water from different perspectives, either as half full or half empty. This technique is cognitive in outlook.

#### **Benefits of looking off the black spot**

- It rewards the stutterer for the much he has achieved rather than punish for what was not achieved.
- It gives the stutterer something to look forward to rather than a situation to avoid
- Its gives the stutterer an opportunity for personal self appraisal
- It promotes a positive well being

### **Meseron Technique**

Meseron therapy is a psychological treatment approach developed by Alfred Awaitefe (1995). Its core principle derives from an African custom of actively rejecting negative circumstances of life while accepting the positive. It is driven by the power of the spoken word. Meseron technique has been severally used with



success as reported in the literature. These include, "Meseron therapy in the treatment of depression" (Awaritefe, 1997b); "Meseron in the management of anorexia nervosa" (Awaritefe, 2004); "Meseron techniques in the management of children's fears" (Ofowwe, 2004); "Transactions in Meseron Therapy: Case of a stroke patient with secondary depression" (Awaritefe & Ofowwe 2004), "African originated therapy: Meseron as an antidote to stress" (Ofowwe, 2005); For a full understanding of Meseron technique particularly as it concerns its basic assumptions, aims and goals and therapeutic implications, see Meseron therapy: An African Approach to Psychological Treatment (Awaritefe & Ofowwe 2007).

#### **Benefits of Meseron Technique**

- Meseron therapy is culture friendly and its tenets are easy to adapt.
- It is flexible and enjoys broad spectrum application.
- It challenges the individual's cognitive domain
- It is cost effective

#### **Discussion**

The therapeutic techniques used in this case report have diverse and varied benefits as already highlighted. The decision to use multiple techniques for a single case has the advantage of flexibility; it allows the client to enjoy the resources inherent in each technique as an independent resource as well as the sum of the techniques. The value of a technique like deep muscle relaxation is well documented. In a study on the impact of abbreviated progressive muscle relaxation on salivary cortisol, Pawlow (2002) reported that a brief relaxation exercise led to experimental subjects having significantly lower levels of post intervention heart rate, state anxiety, perceived stress and salivary cortisol than control subjects, as well as increased levels of self-report levels of relaxation. In the present case it can be said that the deep muscle relaxation training the client

received contributed to a decrease in anxiety and invariably to the overall success of the therapy.

The relevance of cognitive therapies cannot be over emphasized in the management of stuttering in the light of its relationship with anxiety. Techniques like 'looking off the black spot' and "Meseron" employed in this case report are basically cognitive in orientation. Other researchers have asserted to the benefit of cognitive behaviour therapy in the management of stuttering (Menzies, Onslow, Packman and O'Brain, 2009). In the present case the client's reevaluation of some inhibiting and anxiety provoking attitudes contributed immensely to a successful therapeutic encounter.

There is a dire need for further exploration and use of seemingly simple techniques as used in the present study particularly Meseron therapy which has been successfully used in the management of varied psychological states. Clinical psychologists are thus encouraged to further explore the techniques used in this report, in our opinion there are more benefits in these techniques than the present work portrays.

#### **References**

1. Andrews G, Craig A, Feyer AM, Hodinott S, Howie P et al (1983) Stuttering: A review of research findings and theories. *Jou Speech Hear Disord*, 48: 228-248
2. Awaritefe A. (1995) Meseron therapy. A paper presented at the first national conference on the practice of psychotherapy in Nigeria held at the Nigerian Institute for International Affairs, Victoria island, Lagos, 8<sup>th</sup> - 9<sup>th</sup> November.
3. Awaritefe A. (1997b): Meseron therapy in the treatment of depression. A paper presented at the National Conference/Workshop of the Nigerian Society for psychotherapy,



4. University of Calabar teaching Hospital, Calabar, Nigeria.
5. Awaritafe A. (2004): Meseron therapy in the management of Anorexia Nervosa. Nigeria Journal of Clinical and Counseling Psychology, vol. 10(1), 29-38.
6. Awaritafe A. & Ofovwe, C.E (2004) Transactions in Meseron Therapy: Case of a stroke patient with secondary depression. Nigerian Journal of clinical and counseling Psychology.vol.10 (2) pp. 71-80.
7. Awaritafe A. & Ofovwe CE (2007) Meseron Therapy: An African Approach to Psychological Treatment. Ife Psychologia vol. 15(2) 71-81.
8. Brady JP (1991) The Pharmacology of stuttering: a critical review. Am J Psychiatry, 148 (10):1309-1316. Bothe AK, Davidow JH, Bramlett RE, Franic DM, Ingham RJ (2006) Stuttering treatment research 1970-2005:11 Systematic review incorporating trial quality assessment of pharmacological approaches. Am J Speech Lang Pathol, 15(4):342-352.
9. Craig A; Hancock K; Tran Y; Craig M; Peters K. (2002) Epidemiology of stuttering in the community across the entire life span. Jou Speech lang Hsaring. 45 980: 1097-1105.
10. Craig A. Blumgart E. Tran Y. (2009). The impact of stuttering on the quality of life in adults who stutter on the quality of life in adult. JFluency Discord 34 (2) 61-71.
11. Felsenfeld S; Kirk KM; Zhu G; Statham DJ; Neale MC et al; (2000) A study of the genetic and environmental etiology of stuttering in a selected twin sample. Behav Genet 30: 359-366.
12. Gordon N. (2002) Stuttering incidence and caussa. Devalop Med child Neurol. 44: 278-282.
13. Johnson WA (1955) A study on the onset and development of stuttering In: Johnson W. Leutenegger RR. Editors. Stuttering: Thirty years of research at the University of Iowa. Minneapolis: University of Minnesota Press. Pp 37-73.
14. Katz M (1977) Survey of patented anti-stuttering devices. Jou commun Disorder (10) 181-206.
15. Klein JF; Hood SB (2004) The impact of stuttering on employment opportunities and job performance. Jou Fluency Disord. 29 94): 255-273.
16. Ludlow CL (2000) Stuttering: dysfunction in a complex and dynamic system. Brain 123(Pt 10): 1983-1984.
17. Mahr G. Leith W. (1992) Psychogenic Stuttering of adults onset. Jou Speech Hear Res. 35(2): 283-286.
18. Menzies RC Onslow M. Packman A; O'Brian, S (2009) Cognitive behaviour therapy for adults who stutter: a tutorial for speech language pathologists. J Fluency Discord 34 (3): 187-200.
19. Miller S. Watson BC (1992) The relationship between communication attitude, anxiety and depression in stutters and non stutters. Jou Speech hear Res 35 (4)789-798.-258
20. Ofovwe CE (2004a) The Application of Meseron techniques in the Management of Children's Fears. Nigeria Journal of Clinical and Counseling Psychology, Vol. 10 No.1, pp. 79-84.
21. Ofovwe CE (2005): African originated psychotherapy: "Meseron", an antidote to press. In Madu N.S & Governder S. (eds.): Mental Health and Psychotherapy in Africa. UL Press for the University of Limpopo (Turloop Campus) Polokwane (Pietersburg): for the World Council for psychotherapy African chapter Polokwane (Pietersburg)South Africa: pp. 165-174.
22. Pawlow AL (2002) The impact of abbreviated progressive muscle relaxation on salivary Cortisol. Biological Psychology, 60:1;1-16.
23. Plankers T (1999) Speaking in the claustrum: The psychodynamic of stuttering. Int Jou psychoanal 80: 239.
24. Prasse JE; Kikano GE (2008) Stuttering: An overview: American Family Physician, 77 (9):1271-1276.
25. Ratner NB; Guitar B (2006) Treatment of very early stuttering and parent-administered therapy: the state of the art. In Ratner NB.,Tetnowski J. Current issues in Stuttering Research and Practice. Mahwah, N.J.: Lawrence Erlbaum Associates; 99-124.

- Venkatagiri HS (2005) Recent advances in the treatment of stuttering: a theoretical perspective. *J Commun Disord*, 38 (5):375-393.
26. Wingate ME (1964) A standard definition of stuttering. *Jou speech Hear Dis*. 29: 484-488.
27. Woods S; Shearsby J; Onslow M, Burnham D (2002) Psychological impact of the Lidcombe Program of early stuttering interaction. *Int J Lang Comm Disord* 37(1): 31-40.
28. Yairi E; Ambrose N. (1992) Onset of stuttering in pre-school children: Selected factors. *Jou speech.Hear res* . 35 (4): 782-788
29. Yairi E; Ambrose NG (1999) Early childhood stuttering: Persistence and recovery rates. *Jou, Speech Lang Hear Res* 42(5): 1097-1112
30. Yairi, E. Ambrose NG (2005) *Early Childhood Stuttering for clinicians by clinicians*. Austin, Tex: PRO-Ed
31. Zimmermann G. Liljebld S. Frank A. Cleland C. (1983) The indians have many terms for it. Stuttering among the Bannock-Shoshoni. *Jou Speech Hear Res* 26:315-318