Speech Pathologists use behavioural voice therapy to treat a wide variety of patients who suffer from dysphonia. In all cases these voice disorders can result in severe disability, distress and handicap as well as economic hardship and psychological trauma for the individual [1-3] reported on the evidence base for primary speech/voice therapy intervention in five types of voice disorders: Functional Voice Disorders (FVD), Vocal Nodules (VN), Organic Voice Disorders (OVD), Unilateral Vocal Fold Paralysis (UVFP) and Parkinson’s Disease Voice Disorder (PDVD). The authors concluded that there are several areas of voice therapy that have robust methodological evidence of treatment efficacy (i.e. evidence derived from strictly controlled methodological studies). These include voice therapy for FVD, VN and PDVD. Several other areas of voice therapy are judged to be at an early developmental stage of treatment evaluation (i.e. proof of concept). These include voice therapy for OVD and UVFP. Even some of the most advanced studies to date of voice therapy efficacy still present with significant limitations in methodological design. These include: (a) lack of firm and clear diagnostic criteria, (b) non-uniformity of patient cohorts, (c) limited definition of treatment protocols, (d) lack of consistency of outcome measurement across studies and (e) lack of follow-up beyond the immediate end of treatment period. However, there are no studies of treatment effectiveness (i.e. evidence derived from more pragmatic studies in realistic clinical settings) in the voice therapy literature. Therefore, at best our knowledge of whether voice therapy works is limited to evidence from highly controlled environments which only partially reflect clinical practice. Discerning clinicians are left to apply evidence of treatment efficacy (usually delivered by one person in one setting) to their own practice even though their practice may have significant differences to the published studies. Treatment effectiveness studies aim, where possible, to embrace “real life” clinical scenarios and expand the applicability of treatment efficacy evidence to less stringent methodological conditions. These type of studies also aim to refine (expand or reduce) patient selection criteria, variations in treatment delivery and treatment dosage [4]. These research endeavours are necessarily complex and seek a balance between pragmatic reality and methodological rigour. They are, of course, only an option in areas of clinical outcomes research that has already established strong treatment efficacy.

It is also important to appreciate what a well conducted study of intervention efficacy does not tell us. An RCT finding that a voice therapy treatment is effective for a particular disorder supports the conclusion that the treated subjects in the study experienced a relatively greater therapeutic effect than the experiences of control group subjects. It does not, however, mean that clinicians can automatically apply an effective treatment technique and assume that all individuals will benefit [5]. It is also critical to remember that a large majority of prospective group studies involve analysis of results that compare the mean scores of the experimental group against that of the control group. Statistical analysis does, of course, take into account the individual variation around the means (the standard deviation). However, there is also a significant likelihood that the two groups will overlap in the distribution of the scores. Whilst this is inevitable, it is nevertheless the case that some people in the experimental group may actually do worse in treatment than some of the no-treatment control group. Equally, some people in the comparison group may improve more than some people in the active treatment group [6].

Furthermore, results from treatment efficacy studies rarely elucidate on the really important question- which is why. Why was the intervention effective or not effective? Or why was it effective for some subjects and not for others? This depth of research would arguably truly inform clinical practice and enable modification of intervention delivery to maximise its usefulness. Voice therapy is a complex behavioural intervention and success may be dependent upon a multitude of factors including: chronicity, concomitant pathology, presence or absence of secondary gains, clinician’s skill and knowledge, client adherence and the “burden” of treatment [7,8]. Studies of treatment effectiveness are required to begin to analyse the influence of these factors on treatment outcome.

Perhaps the largest danger facing voice therapy efficacy research is the over-zealous application of the principles of evidence based practice. As discussed above, the undiscerning clinician could use a treatment which has proven value and conclude that the patient is to blame for limited improvement.

This is perhaps more of a danger for inexperienced clinicians or those who do not access to more senior clinicians who can help contextualise the evidence around the needs, characteristics and subtleties of any individual case. It is crucial that we remember that it is the professional who is the person who “must determine whether the evidence in the literature is applicable to a particular individual bearing in mind unique circumstances, history and the like” [6]. The over-reliance on the strictest interpretation of the evidence may result in clinical nihilism. Critical appraisal of the literature can too readily become nihilistic, feeling that no study can be believed and that no relevant evidence exists. It is quite easy to find flaws in even the best studies and easy to justify a lack of adaptation to clinical practice. The answer of course lies in the clinician being professional, balanced and informed. There is a huge difference between study limitations and fatal flaws [6]. The experienced clinician is required to judge whether there are study design and implementation problems which jeopardise and invalidate the results or whether interpretation should proceed with caution and realism. It is important to remember that the application of knowledge of treatment effectiveness and the accepted definition of evidence-based practice has always acknowledged that the treatment choice should always be highly individualised and made with expert practitioner discretion [8].

REFERENCES


