A Review of Patient Adherence to the Recommendation for Voice Therapy

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Summary

Voice therapy is a preferred treatment for many voice problems. Many patients referred to voice therapy by their otolaryngologist fail to follow through with the recommendation. Unlike other behavior change therapies, there are no studies documenting the incidence of poor patient attendance in voice therapy. The primary purpose of this study was to document initial patient adherence to the physician's recommendation for voice therapy. A retrospective review of 294 charts was conducted at 2 voice institutions in Atlanta, GA. Reviews included adherence to (1) the physician's referral to the speech-language pathologist and (2) the speech-language pathologist's recommendation for follow-up voice therapy. Thirty-eight percent of patients did not adhere to the physician's recommendation to attend voice therapy. Of those who initiated follow-through, 47% did not return after the initial speech-language pathology evaluation session. There was no significant difference in attendance by gender or by age group. The primary reasons reported for nonattendance were insurance denials, resolution of the problem, and distance to the clinic. The attendance rates described in this study were low but consistent with research published in the fields of otolaryngology, gastroenterology, and psychology. Poor patient attendance is an important area to consider in outcomes research and the cost to healthcare.

Key Words: Voice therapy; Attendance; Adherence

Introduction

Voice problems often necessitate the use of voice therapy to change the way one uses the vocal mechanism. Not unlike other health behavior change therapies, voice therapy involves structured treatment sessions and follow-up work to be completed outside the therapy session to reinforce the behavior change. And, not unlike other health behavior change therapies, voice therapy suffers with the problems of resistance to change and lack of follow-through outside the therapy session. The central question in most behavior change therapies is how to encourage a person's adherence to the behavior change program.

Voice therapy is often initiated by a referral from an otolaryngologist to a speech-language pathologist. There is a discrepancy between the number of patients referred for voice therapy as a treatment modality and those who follow through with the recommendation (J. Orr, personal communication, January 2005; A. Klein, personal communication, August 2005; J. Delgaudio, personal communication, May 2006). Clinicians complain of missed appointments and no-shows, and many voice centers provide their patients with a written attendance policy.[1]

It is well documented in behavior change therapies that consistent attendance and adherence to the treatment program assist people through the behavior change process.[2], [3] and [4] There are costs for nonadherence to voice therapy in that many people with voice disorders are faced with loss of revenue or loss of employment because they are unable to meet the vocal requirements of their occupations.[5] It stands to reason that to benefit from voice therapy; one must attend voice therapy sessions.

There is a large body of literature documenting patient attendance in psychotherapy and its effect on treatment outcome. The general consensus is that psychotherapy patients miss approximately 60% of scheduled appointments.[6] Morris and Stein[7] discussed the issue of patient attendance in a community-based speech-language pathology clinic treating children younger than 4 years. A full 62% of the discharges from this clinic are due to poor attendance. Unlike other behavior change therapies, there are no studies documenting the incidence of poor patient attendance in voice therapy.

Given the cost of cancellations and no-shows to healthcare and the importance of attendance to successful treatment, patient attendance patterns should be studied as a first step in improving voice therapy outcomes. The primary purpose of this study was to document initial patient adherence to the recommendation for voice therapy by the otolaryngologist. The following research questions were addressed: (1) Of the patients referred by an otolaryngologist for voice therapy, how many attended the first speech-language pathology session? (2) Of the patients referred for voice therapy, how many attended one follow-up voice therapy session after the initial speech-language pathology session? (3) Was there a significant difference in attendance by gender? (4) Was there a significant difference in attendance by age? and (5) What were the primary reasons reported for nonattendance?

Methods

Study design

A retrospective review was conducted at two institutions in Atlanta, GA. One research site was a community-based voice and swallowing center staffed by speech-language pathologists. The other site was a university-based multidisciplinary voice center staffed by laryngologists, speech-language pathologists, and singing voice specialists. The first review was conducted at the university-based multidisciplinary voice center and included the charts of 125 consecutive voice patients seen by the laryngologist for diagnosis of dysphonia and referred for voice therapy. The second review was completed at both research sites and included the charts of 294 consecutive voice therapy patients who had undergone a voice evaluation and were referred for follow-up voice therapy (294 total charts including 125 from the multidisciplinary center and 169 from the community-based center).

Participants

Participants included both males and females aged 15–90 years with no known psychological or cognitive problems that would interfere with their ability to participate in voice therapy. All patients presented with a chief complaint of dysphonia. Only those patients for whom voice therapy was recommended were included in the study. The study group included patients with benign vocal fold lesions, vocal fold edema, vocal

fold scarring, muscle tension dysphonia, vocal fold atrophy, unilateral vocal fold paralysis, and paradoxical vocal fold motion disorder.

Procedures

Patients were coded as +/− for attending the first voice therapy appointment (the voice evaluation) and the second voice therapy appointment (the first follow-up voice therapy session). Age and gender were also recorded. After data collection, 20% (24) of the subjects who did not attend the second session were selected randomly for follow-up telephone interview. Only patients who had indicated that they intended to return for follow-up voice therapy after the first session were contacted. An office assistant conducted the interview to avoid conflict of interest. The interview consisted of the following questions: (1) What was the primary reason for not returning for voice therapy? and (2) Were there any other reasons?

Analysis

The statistical package SPSS 14.0.1 (SPSS, Chicago, IL) was used for analysis. Patients were coded +/− for attendance of the first and second speech-language pathology sessions and were further grouped by gender and age. This study focused on adherence with a medical directive; as such, age groupings were based on stage of life.[8] The factors in question were not assumed to have a normal distribution; therefore, nonparametric statistics were used. Chi-square (χ^2) analyses were performed for attendance of the first and second speech-language pathology sessions by gender and age group.

Results

Chart review of the 125 patients seen at the multidisciplinary center and referred by a laryngologist for voice therapy determined that 61.6% (77/125) attended their first speech-language pathology session. Review of 294 patient charts, which included charts from both research institutions, indicated that 53.4% (157/294) attended an additional follow-up session.

Of the 125 patients referred for voice therapy by the laryngologist, 89 were females and 36 were males. Attendance rates were similar across genders (females: 60.67%, males:

63.89%). χ^2 analysis showed no significant difference in follow-through by gender: χ^2 (1, 125) = 0.112, $P > 0.05$. Results for the follow-up therapy session were comparable. Of the females, 53.8% (112/208) attended voice therapy, as did 52.3% (45/86) of the males. Once again, χ^2 analysis did not show a significant difference in follow-through by gender: χ^2 (1, 294) = 0.057, $P > 0.05$.

Participants were grouped by age (Table 1). The group with the highest attendance rate for the first speech-language pathology session was the 21–40-year-old group, with 68.6% attendance. The ≥65-year-old group had the next highest rate, 63.6%. Lowest attendance was found in the 40–64-year-old group, with a 48.1% attendance rate. However, there was no significant difference in attendance by age group: χ^2 (2, 122) = 4.19, $P > 0.05$.

Table 1.

Attendance by Age

	First Session		**Second Session**	
	Attended	**Did not Attend**	**Attended**	**Did not Attend**
<21	2	1	4	4
21–40	24	11	35	36
41–64	26	28	76	64
65+	21	12	42	33

Attendance rates for the second speech-language pathology session are as follows. Results are reported for age groups in order of attendance rate: the ≥65-year-old group, 56.0%: the 41–64-year-old group, 54.3%: the <21-year-old group, 50%: and the 21–40-year-old group, 49.3%. X^2 analysis showed no significant difference in attendance by age grouping: X^2 (3, 294) = 0.766, $P > 0.05$. Interestingly, the group most likely to attend the first session (21–40 year olds) was least likely to return for an additional session.

Of the 24 subjects randomly selected for the follow-up survey, 21 agreed to participate. The most common reason reported for not attending voice therapy was lack of insurance coverage; 48% of respondents indicated this was the primary reason for their nonadherence to the medical directive ($n = 10$). Five respondents (24%) indicated that the voice problem had resolved either spontaneously or with recommendations from the first session. Three patients (14%) said they did not return because the clinic was too far away, but only one of these patients sought treatment with a speech-language pathologist closer to her home. Two people listed difficulties with transportation as the primary problem: one lived in an assisted living community with limited transportation; the other was a 15-year-old girl with poor family support.

Discussion

In this study, 38% of patients did not adhere to the physician's recommendation to attend voice therapy. Of those who initiated follow-through, 47% did not return after the initial speech-language pathology evaluation. There was no significant difference in attendance by gender or by age group. The primary reasons reported for nonattendance in a limited telephone survey were insurance denials, resolution of the problem, and distance to the clinic.

The reason for the lack of follow-through on the physician's recommendation for voice therapy is unclear. Gillespie[9] suggests several reasons that a patient may or may not follow through with the medical directive. These include perception of disease severity, patient-clinician rapport, cultural norms, family support, and self-efficacy. Physician-patient communication may also influence patient attendance. Lloyd et al[10] discussed referrals to otolaryngologists by primary care physicians. Patients are less likely to see an otolaryngologist if they are unable to discuss the need for referral to a specialist with their primary care physician. The clinician-client relationship has often been suggested to determine treatment adherence.[11] Noel and Howard[12] suggest that patient attendance is related to the engagement of the clinician during the initial contact session. Smoller et al[6] have found that the clinician's response to poor attendance and “no-shows” can influence future patient attendance.

Many health behavior change fields face the obstacles of patient nonadherence and nonattendance. The attendance rates described in this study are low but are consistent

with research published in the fields of otolaryngology, gastroenterology, and psychology. This study was a first attempt to document the incidence of voice therapy attendance and describe initial findings of patient reports of the reasons for their nonattendance.

The primary limitation of this study was its multi-institutional structure. By accessing charts at two independent voice centers, it was possible to review a larger number of cases and to include a wider population sample. However, there were differences in the referral pattern and format of the speech-language pathology voice evaluation, which may have skewed results. At the university-based multidisciplinary center, stroboscopy was conducted at the time of the physician's examination, prior to referral to the speech language pathologist. At the community-based center, the speech-language pathologist completed stroboscopy at the initial evaluation. It was unclear if the multidisciplinary nature of one center versus the other made a difference in attendance patterns. This is an area for future research. Additionally, this study looked only at attendance of the first and second speech-language pathology sessions. A complementary study is underway to determine the percentage of patients who complete a full course of voice therapy.

Poor patient attendance is an important area to consider in outcomes research and the overall cost to healthcare.[2], [3], [13], [14], [15] and [16] Full appreciation of the reasons for patient nonattendance will aid clinicians in improving the delivery of healthcare for voice patients. Future research into the reasons why patients disregard the recommendation for voice therapy may be valuable in improving attendance rates. This may include correlating attendance rates with other factors, such as impact on quality of life, severity of the voice problem, insurance coverage, family support, and service delivery methods.

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