INTRODUCTION
Dysphonia (hoarseness) is characterized by altered vocal quality, pitch, loudness, or effort that impairs communication or reduces quality of life.1 Approximately 29% of people are affected in their lifetime.2 Voice therapy (VT) is an essential tool in the management of many voice disorders,3 with outcomes highly dependent on compliance. Despite this, 65% of patients fail to complete therapy.4 Understanding patient motivations could provide insight into reasons for non-compliance. The Voice Handicap Index (VHI) and VHI-10 are validated quality of life indices for patients with dysphonia.5 In this study, we examine the cohort of patients in an attempt to identify potential markers for therapy adherence.

RESULTS
• Of the 489 patients referred for VT, 36.2% did not attend, 36.0% partially completed VT, and 27.8% fully completed VT.
• Those electing to not attend VT were older. Otherwise, there were no significant differences between groups regarding demographics or etiology of dysphonia. (Figure 1)
• Patients who fully or partially completed VT were more likely to use their voice for work (p=0.015).
• Patients who did not attend VT had:
  1) Significantly lower total VHI/VHI-10 scores. (Table 1)
  2) Significantly lower score on six specific VHI questions. (Table 2)
• Patient responses for the partially completed and completed groups were similar at time of evaluation and at follow-up. (Table 2)

DISCUSSION
Several studies have attempted to identify barriers to patient participation in voice therapy:
• Financial and logistical issues have been correlated to a higher risk of drop-out.6
• Previous studies were unable to demonstrate a correlation between VHI and drop-out.4
• In this study, patients who did not attend therapy had lower VHI scores.
• Those who did not enroll in VT may not perceive their impairment to be sufficient to motivate them to participate therapy.
• Only three of the individual questions that correlated with therapy compliance are included in the VHI-10. This may affect the sensitivity of outcomes measures if the VHI-10 is used instead of the long-form VHI, and could potentially explain negative results of previous studies.

METODS
• Single institution retrospective cohort study from January 2011 to June 2016.
• All patients had a chief complaint of dysphonia and were referred for voice therapy.
• Data collected included survey data, demographic information, diagnosis, social history, and exam findings. Patients were divided into three cohorts: 1) did not attend VT, 2) partially completed VT, or 3) completed VT.
• Chi-squared tests, Kruskal Wallis tests, and Mann Whitney U tests were used to compare demographic, clinical, and VHI data between groups.

CONCLUSIONS
Understanding occupational voice requirements, as well as specific responses and trends in the VHI/VHI-10 may help providers identify which patients are more likely to attend or complete therapy. The VHI is one tool that can enhance provider understanding of patient motivations to attend/complete VT. This has the potential to improve resource utilization, voice rehabilitation, and patient satisfaction.

REFERENCES
8. In screening for therapy compliance, it is important to identify potential barriers to patient engagement need further examination.
9. When asked prospectively about their intent to participate in VT, 85% indicated they planned to attend therapy, and 85% perceived that they were successful in their endeavor.7
10. Additional barriers to patient engagement need further examination.
11. When non-adherent patients were queried about their reasons for not participating in VT, 46% responded “lack of interest.”9

Table 1. Comparison of VHI, VHI-10 and subdomain scores between treatment groups. Pre- (initial) and post- treatment (final) scores are included for patients that participated in therapy.

<table>
<thead>
<tr>
<th>VHI Question Item</th>
<th>p</th>
<th>N</th>
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<tbody>
<tr>
<td>P1 I feel as though I have to strain to produce voice.</td>
<td>0.031</td>
<td>376</td>
</tr>
<tr>
<td>P7 I tried to change my voice to sound different.</td>
<td>0.007</td>
<td>374</td>
</tr>
<tr>
<td>E1 I am tense when talking to others because of my voice.</td>
<td>0.045</td>
<td>376</td>
</tr>
<tr>
<td>E4 My voice problem upsets me.</td>
<td>0.025</td>
<td>377</td>
</tr>
<tr>
<td>E5 I am less outgoing because of my voice problem.</td>
<td>0.031</td>
<td>377</td>
</tr>
<tr>
<td>E6 My voice makes me feel handicapped.</td>
<td>0.007</td>
<td>378</td>
</tr>
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Table 2. VHI questions for which patients who enrolled in therapy scored significantly higher. Asterisks (*) indicates questions items included on the VHI-10.