Purpose: The purpose of this article was to determine what reasons speech-language pathologists (SLPs) report for patient noncompliance with swallowing recommendations and to determine how SLPs deal with noncompliance.

Method: Eight SLPs working in health care settings were interviewed.

Results: All of the participants reported patient noncompliance with swallowing recommendations due to reasons discussed by Colodny (2005). The reason “dissatisfaction with diet modifications” was reported by all participants. A lack of support from family or staff and a lack of resources were additional reasons cited for patient noncompliance. The SLPs dealt with patient noncompliance using various methods. Education and staff and family involvement were the most frequently reported methods. Methods varied by reason for noncompliance. Training typically involved the patient and sometimes the caregiver; lasted 15–30 min; and included a combination of verbal instructions, hands-on experience, and visual and written materials.

Conclusion: This report supports previous findings related to patient noncompliance with swallowing recommendations and highlights noncompliance as a pressing issue that SLPs regularly face when working with patients with dysphagia.

KEY WORDS: patient noncompliance, dysphagia, swallowing therapy
programs and understand why patients may be noncompliant with swallowing treatment recommendations.

Colodny (2005) studied patient noncompliance with swallowing recommendations and identified eight categories of reasons for such behavior. The most commonly reported reasons for noncompliance by patients with dysphagia were denial of a swallowing problem and dissatisfaction with modified food consistencies (e.g., puree) and thickened liquids. Other reasons included making a calculated risk with noncompliance, making rationalizations for their reported behavior, minimizing or downplaying the significance of the dysphagia, verbally accommodating but not demonstrating compliance, projecting blame on the therapist, and deflecting compliance to another person. Colodny explained these results from noncompliant adults as a “consequence of the difficulty in dealing with the psychological ramifications of their physical disabilities” (p. 67). Because dysphagia can lead to a loss of control and changes in social roles, noncompliance may serve as a coping mechanism for some patients (Colodny, 2005). When developing treatment plans, it is important for SLPs to acknowledge the stress that a dysphagia diagnosis may cause a person. If SLPs consider these factors as possible causes of patient noncompliance, perhaps altering the type of education and training they provide to patients during treatment will increase compliance.

Leiter and Windsor (1996) researched compliance of swallowing treatment recommendations for patients who received intervention that included training, modeling, and observation of safe-swallowing techniques. The patients received intervention until the SLP observed each person “performing the prescribed techniques routinely and successfully” (p. 293) and the person’s health care professional reported no apparent swallowing problems (Leiter & Windsor, 1996). Initial training involved training and modeling of safe-swallowing techniques for at least one 30-min session. Additional intervention consisted of weekly ongoing instruction and observation. Their findings revealed an actual compliance rate that varied from 0% to 80%: Half the patients had low levels of compliance, 25% had fair compliance, and 25% had high levels of compliance. Leiter and Windsor suggested possible reasons for the low levels of compliance, including that intervention was not long enough to stabilize understanding and use of strategies and techniques, or that there was no motivation to use the therapy tools. The authors recommended that all patients with dysphagia be educated about the possible consequences of noncompliance in their therapy program and that SLPs formalize a follow-up plan to monitor compliance with swallowing recommendations.

Compliance with swallowing recommendations following staff training was also studied by Rosenvinge and Starke (2005). These researchers documented compliance with swallowing recommendations before and after a training program for hospital staff. Initial compliance was 51.9% for recommendations such as consistency of fluids, diet modifications, amount of food given, strategies used, use of swallow guidelines, and level of supervision. Reasons for noncompliance included inappropriately thickened liquids by staff, staff lacking knowledge or understanding of recommendations, and insufficient supervision. Based on the observed noncompliance, facility-wide changes were implemented. These changes included formation of a dysphagia compliance group to oversee ways to improve care for patients with dysphagia, establishment of a dysphagia/nutrition link nurse program that provided training sessions on how to supervise the care of patients with dysphagia, improvement of training programs to teach hospital personnel to screen patients for swallowing problems, availability of prethickened liquids throughout the hospital, and placement of updated and improved swallowing advice forms at patients' bedsides. Compliance for the recommendations of consistency of fluids, amount of food given, use of swallowing guidelines, and level of supervision improved significantly after training. Rosenvinge and Starke concluded that the key to improving compliance was related to the level of training. They found that providing their training program on an ongoing basis was needed due to high rates of staff turnover. Research has shown that to increase compliance with swallowing recommendations, SLPs need to include patient training as well as staff training in any treatment program.

Nursing staff compliance with SLP swallowing recommendations was investigated by Colodny (2001). She administered the “Mealtime and Dysphagia Questionnaire” (Colodny, 2001) to nursing staff at a nursing home to determine their attitudes toward compliance with treatment recommendations made by the SLP. She found that barriers to compliance by the nurses were related to knowledge of feeding techniques, additional work from the recommendations, and disagreement with the recommendations. In this study, certified nursing assistants (CNAs) were reportedly more compliant than registered nurses (RNs). The RNs cited lack of knowledge as their primary reason for noncompliance. The CNAs reported disagreement with recommendations as their highest rated reason for noncompliance. Colodny concluded that ongoing nursing staff training as well as staff monitoring is necessary to improve compliance with swallowing recommendations from the SLP.

Research on compliance with swallowing recommendations has focused on patient and staff reports and observations. Reports concerning reasons for patient noncompliance from the SLPs’ perspective were not found in the literature. In addition, evidence of methods for dealing with patient noncompliance of swallowing recommendations to date has included patient and staff training; however, little is known about the type and duration of training provided. Therefore, the purposes of this study were to determine what reasons SLPs report for patient noncompliance of swallowing recommendations and how SLPs deal with patient noncompliance.

**METHOD**

**Participants**

Eight SLPs working in a health care setting were identified through professional contacts and served as participants for this study. At the time of the study, two participants
worked at a skilled nursing facility, three worked at a rehabilitative center, and three worked at an acute care hospital. Average years working in the profession was 18.7, with a range of 8 to 29 years. The participants reported treating patients with dysphagia an average of 12 years (range 5–20 years). Dysphagia was reported to be 63.7% of the SLPs’ caseloads (range 10%–99%). Seven (87.5%) of the participants reported receiving their initial dysphagia training from a university, and one participant learned on the job. All participants had enrolled in dysphagia continuing education while working. The participants reported using workshops, seminars, online courses, and journal reading as sources of dysphagia continuing education.

Questionnaire

We developed a questionnaire that consisted of four sections. The background section contained eight questions asking about the participant’s job title, length of experience, previous employment, dysphagia caseload, and dysphagia continuing education. The second section asked participants their opinion about reasons for patient noncompliance and how they dealt with patient noncompliance. The third section asked participants to explain how they provided training to patients and caregivers, and the final section asked for additional comments regarding patient noncompliance with swallowing recommendations.

To check for clarity and readability of the questions, the questionnaire was piloted with two SLPs who worked in a health care setting. We made minor revisions on the questionnaire secondary to feedback from the SLPs. The final version of the questionnaire is provided in the Appendix.

Data Collection and Analysis

We used the questionnaire to interview each participant. Responses were recorded online as well as with a Marantz tape recorder (Model PMD 201). Each survey and cassette recording was number coded to ensure confidentiality. Responses were verified by the second author after each data collection session by listening to the tape recording. An independent listener also verified 25% of the interview transcripts (i.e., two interviews) for response accuracy. Participant responses were transcribed with 100% accuracy. Objective data were analyzed descriptively using frequency counts and average ratings. The open-ended responses were reviewed by both researchers, who developed categories of responses. We discussed the categories and categorized all responses with 100% agreement.

RESULTS

Reported Reasons for Patient Noncompliance

Participants reported a variety of reasons for patient noncompliance with swallowing recommendations. Results and definitions of each reason are provided in Table 1. In this study, participants reported patient noncompliance for any or all recommendations in a treatment plan; that is, reports of patient noncompliance were not linked to specific recommendations. All of the participants reported patient noncompliance due to dissatisfaction with diet modifications. Open denial, calculated risk, and minimization were reported by 88% of the participants, deflection and accommodation by 63%, rationalization by 50%, and projection by 25%. When asked for other reasons for patient noncompliance, a participant reported cognitive issues affecting patients’ understanding of their swallowing disorder. In addition, two participants cited reasons related to others; that is, lack of support from family or staff and lack of resources. Seven of the eight participants stated that the most frequent reason for patient noncompliance was dissatisfaction with diet modifications. One participant reported that the most frequent reason for patient noncompliance was patients not remembering the swallowing recommendations or that the patients claimed they were never told about swallowing recommendations.

Dealing With Patient Noncompliance

The most commonly used methods to deal with patient noncompliance with swallowing recommendations were education and the involvement of others, such as professionals and family. Table 2 shows the number of participants who used each method to address patient noncompliance. Other methods reported by participants were having patients sign waivers or releases, documenting patient noncompliance,
acknowledging the issue with the patient, substituting other types of food, and compromising with the patient. Methods were not mutually exclusive, and participants did not rate their satisfaction with each method.

Patient Training

Participants reported using several approaches (i.e., hands-on, verbal, visual, written) for patient training of swallowing recommendations using a 4-point scale with 1 referring to never and 4 referring to always. The mean response to using hands-on training was 3.9, verbal training was 4.0, visual training was 3.4, and training with written documents was 3.5. All participants reported using at least two of the approaches together in patient training.

All participants indicated that their training varied depending on the patient. The reported factors that influenced patient training included a patient’s ability to follow directions, memory, overall cognition, learning style, and visual acuity.

The participants were also asked to report who they trained—the patient, the caregiver, or both. Given a choice of always, sometimes, or never, 75% of the SLPs reported always training the patient, 50% always trained the caregiver, and only 37.5% always trained both the patient and the caregiver (see Table 3). None of the participants reported never providing training.

When asked to indicate the amount of time spent on patient training, half of the participants reported spending 15–30 min, 37.5% reported spending > 30 min, and 12.5% reported spending < 15 min. More time was reportedly spent training both the patient and caregiver compared to only the patient (see Table 4). Time spent training only the caregiver varied, with half of the participants spending 15–30 min.

DISCUSSION

Experienced SLPs working in health care settings reported reasons for patient noncompliance with their swallowing recommendations. A majority or all of the SLPs reported the following reasons discussed by Colodny (2005): dissatisfaction with diet modifications, open denial of problem, taking a calculated risk, minimization of problem, deflecting the issue to another person who claimed there was no problem, and accommodating the disorder by saying they were compliant but were not compliant. Additional factors that affected compliance related to the cognitive status of the patient and the level of support from family and staff, as well as availability of resources. The SLPs dealt with patient noncompliance in various ways. The most frequently reported were education and staff and family involvement. Methods varied by patients’ reason for noncompliance. Typically, training of swallowing recommendations involved a combination of hands-on experience, verbal instructions, and visual and written materials; involved the patient and sometimes the caregiver; and lasted 15–30 min.

Reasons for Patient Noncompliance

All of the study participants reported that they had worked with patients who were noncompliant with their swallowing recommendations. The reasons reported for patient noncompliance agreed with those reported by Colodny (2005). Both this study and the Colodny study found that patients reported dissatisfaction with diet modifications as a frequent reason for noncompliance. Mertz Garcia, Chambers, and Molander (2005) surveyed SLPs about the use of thickening liquids for patients with dysphagia and reported that almost half of the respondents found that their patients

| Table 2. Percentage of SLPs who reported methods used to deal with patient noncompliance. |
|-----------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Education | Involve others | Sign waiver | Document | Acknowledge issue | Food substitution | Compromise with patient |
| Dissatisfaction | 62.5 | 25.0 | 25.0 | 12.5 | 12.5 | 75.0 | 25.0 |
| Open denial | 87.5 | 12.5 | | | | |
| Calculated risk | 62.5 | 12.5 | 37.5 | | | |
| Minimization | 87.5 | 25.0 | 12.5 | | | |
| Deflection | 37.5 | 37.5 | 12.5 | | | |
| Accommodation | 62.5 | 37.5 | | 12.5 | | |
| Rationalization | 50.0 | 12.5 | | | | |
| Projection | 37.5 | | 12.5 | | | |

| Table 3. Percentage of SLPs who reported the frequency of training they provided to different recipient groups. |
|-----------------------------------|-----------------|-----------------|
| Always | Sometimes | Never |
| Patient | 75.0 | 25.0 | 0 |
| Caregiver | 50.0 | 50.0 | 0 |
| Both | 37.5 | 62.5 | 0 |

| Table 4. Percentage of SLPs who reported the time they spent training different recipient groups. |
|-----------------------------------|-----------------|-----------------|-----------------|
| 0–15 min | 15–30 min | >30 min |
| Patient | 12.5 | 50.0 | 37.5 |
| Caregiver | 25.0 | 50.0 | 25.0 |
| Both | 12.5 | 37.5 | 50.0 |
had a “strong disliking” for thickened liquids, especially for honey-thick and spoon-thick consistencies, regardless of which thickening agent was used. It is not surprising that dissatisfaction with diet modifications was reported by all of the study participants and as the most frequent reason for noncompliance.

A majority of the participants also reported open denial, calculated risk, and minimization as reasons for patient noncompliance. Colodny (2005) found these reasons to occur in patients with dysphagia with a frequency between 19% and 50%. Leiter and Windsor (1996) also found reasons for patient noncompliance that could be categorized as denial and minimization. Half the patients in their study questioned the relevance of safe-swallowing instructions (i.e., minimization), and one patient stated that the safe-swallowing instructions were not needed because nothing would happen (i.e., denial). Thus, it appears that patient noncompliance with swallowing recommendations is an issue that stems from different reasons that vary from patient to patient.

In addition to the reasons proposed by Colodny (2005), the SLPs in this study also reported that compliance was affected by a lack of support from staff members and a lack of resources. Rosenvinge and Starke (2005) also found a lack of staff support in their study. They reported reasons for noncompliance with recommendations for patients with dysphagia that included staff not thickening fluids to the proper consistency, staff not following guidelines, and staff not providing the necessary supervision during meals. Rosenvinge and Starke also reported resource issues related to noncompliance such as inappropriate food coming from the facility kitchen and no thickening agents available. Colodny (2001) found that both RNs and CNAs were noncompliant because of a reported lack of knowledge and/or disagreement with the SLP’s recommendations. Noncompliance due to a lack of resources was also found by Chadwick, Jolliffe, Goldbart, and Burton (2006). Caregivers in this study cited time constraints, limited staff members, and high staff turnover rates as resource barriers to being compliant with swallowing recommendations. SLPs working with patients with dysphagia need to be aware of all of these potential reasons in order to proactively address barriers to compliance with swallowing recommendations.

### Dealing With Patient Noncompliance

#### Methods

Participants reported using a variety of methods to address patient noncompliance with swallowing recommendations. It is interesting that two or three methods were reported for most of the reasons for patient noncompliance. Seven different methods were cited to address patient noncompliance because of dissatisfaction with diet modifications. The methods used to address most or all of the reasons for patient noncompliance were education and involving others in the treatment plan. This is not surprising given that providing educational services to individuals, families, and groups is considered a professional role of the SLP in the Scope of Practice in Speech-Language Pathology (American Speech-Language-Hearing Association [ASHA], 2007). The participants were not asked why they used each method to address patient noncompliance; however, perhaps the SLPs varied their method based on the individual needs of the patient.

Education and ongoing monitoring were also recommended to address patient noncompliance by Sharp (2005). Sharp stated that if a patient refused to follow treatment recommendations, the SLP should have a direct conversation with the patient to determine why he or she is non-compliant and to understand that person’s perspective. The noncompliant patient should also receive ongoing education and monitoring of his or her health status (Sharp, 2005). Rosenvinge and Starke (2005) dealt with noncompliance at their hospital by providing education and involving others. The education included providing nursing staff with quarterly 2-hr training sessions to qualify staff to supervise care for patients with dysphagia, and providing ongoing staff in-services. These researchers involved others by instituting a multidisciplinary team to improve care for patients with dysphagia. Including other people and providing education appear to be frequent methods used to address noncompliance with swallowing recommendations.

Another method reported to deal with patient noncompliance was signing waivers. This method was used to address dissatisfaction with diet modifications, calculated risk, minimization of problem, and deflection. Sharp (2005) discussed waivers as informed refusal forms that offer limited protection to clinicians and institutions. She advocated for waivers to be used as part of a conversation with the patient with dysphagia and the care team to ensure that the patient understands the treatment plan and has the opportunity to ask any questions.

#### Training recipients

Most participants reported always training the patient with dysphagia on the swallowing recommendations and sometimes training both the patient and a caregiver. Leiter and Windsor (1996) described the direct training they provided to patients with dysphagia, including modeling, reviewing the patient’s videofluoroscopic swallow study with the patient, and education. Other researchers studying noncompliance with swallowing recommendations (Colodny, 2001; Crawford, Leslie, & Drinnan, 2007; Rosenvinge & Starke, 2005) stated that caregiver training was offered to staff who work with patients with dysphagia on an individual basis (i.e., the SLP reviewed specific recommendations with staff for each patient with dysphagia) and/or via formal in-service training sessions. This study found that only 37.5% of the participants always trained both the patient and a caregiver. A possible explanation for this low percentage is that caregivers were not available for training (i.e., family not at the health care facility when the SLP was available; high staff turnover resulted in new staff working with patients with dysphagia without training). Given the complexity of noncompliance, training all invested stakeholders in the wellness and safety of each person with dysphagia is important.

#### Duration of training

Most participants reportedly spent 15–30 min training the patient and/or caregiver; a few participants spent < 15 min in training. According to half of the participants, > 30 min was spent training both the patient and a caregiver. The only study found in the literature that specified the amount of time spent training was...
by Leiter and Windsor (1996). These researchers provided direct training to each patient for a minimum of 30 min in their study—longer than the duration reported in this study. This difference may be due to the participants reporting averaged training time across all of their patients; Leiter and Windsor provided exact training times for specific patients. Given the prevalence of patient noncompliance discussed earlier in this article, 30 min of training may not be sufficient to address all of the issues related to compliance with swallowing recommendations.

In summary, experienced health care SLPs reported numerous reasons for patient noncompliance with swallowing recommendations as well as a variety of methods used to address patient noncompliance. This report supports previous findings related to patient noncompliance and highlights noncompliance as a pressing issue that SLPs regularly face when working with patients with dysphagia.

**Limitations**

There are several limitations of this pilot study. First, the sample size was small and thus results may not be representative. Second, the interview questions asked about dysphagia treatment in general and did not specify compliance based on the etiology or severity of the patient’s dysphagia, the patient’s age, or the specific treatment recommendations. Finally, the researchers did not ask the participants about the success of their training or how compliance was addressed in the training. Future research is needed to clarify patient compliance by dysphagia etiology, age, and cognitive status. Additional research is needed to determine effective training methods with a larger sample of participants.

**ACKNOWLEDGMENT**

This article is based on research conducted by the second author, under the direction of the first author, in partial fulfillment of a master’s degree in speech-language pathology at the University of Wisconsin–Stevens Point.

**REFERENCES**


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APPENDIX (P. 1 OF 2). PATIENT NONCOMPLIANCE WITH SWALLOWING RECOMMENDATIONS: QUESTIONNAIRE FOR SLPs

Work Setting: _________________________________
Date of Interview: _________________________________
Interviewer: _________________________________

Background Information
1. What is your job title? _________________________________
2. How long have you worked as an SLP? _________________________________
3. Where did you receive your dysphagia training? _________________________________
4. How long have you worked with swallowing? _________________________________
5. How long have you been at your current place of employment? _________________________________
6. What other settings have you worked in? _________________________________
7. What percentage of your case load is dysphagia? _________________________________
8. What dysphagia continuing education activities have you participated in? When did you participate?

9. According to Colodny (2005), there are eight reasons for noncompliance of swallowing recommendations. Do you see the following reasons for noncompliance with swallowing recommendations? (Check all that apply)

___Open denial: When patients refuse to acknowledge that they have a swallowing problem.
___Dissatisfaction with the product: When patients indicate that they dislike the preparations such as thickened liquids or pureed foods that were designed to improve their swallowing or safety.
___Calculated risk: When patients are willing to take the chance with deadly consequences of patient* noncompliance.
___Rationalization: When patients provide alternative explanations to justify their patient* noncompliance in the face of contradictory evidence.
___Minimization: When patients acknowledge that they had a problem swallowing but minimized its severity and/or failed to comply with SLP recommendations because they thought that they did not need them.
___Accommodation: When patients suggest that they would alter their behavior in an effort to improve or reduce the severity of their swallowing problems.
___Projection: When patients express anger toward or engage in verbal abuse of the SLP in response to recommendations.
___Deflection: When patients justify their patient* noncompliance by referring to an external authority, such as a doctor or a family member, who putatively claimed that they did not have a problem or need therapeutic interventions.
___Other _________________________________

10. How do you deal with noncompliance for the following reasons?

Open denial _____________________________________________________________
Dissatisfaction with the product _____________________________________________
Calculated risk _____________________________________________________________
Rationalization _____________________________________________________________
Minimization _____________________________________________________________
Accommodation _____________________________________________________________
Projection _____________________________________________________________
Deflection _____________________________________________________________
Other _____________________________________________________________

11. In your clinical experience, what reason(s) is used most often for noncompliance of swallowing recommendations?
APPENDIX (P. 2 OF 2). PATIENT NONCOMPLIANCE WITH SWALLOWING RECOMMENDATIONS: QUESTIONNAIRE FOR SLPs

The following questions ask about your approach to patient training of swallowing recommendations. Please use the following scale to answer the questions. Circle the number that best represents your level of agreement with the training option.

1 = never, 2 = occasionally, 3 = sometimes, 4 = always

12. When providing recommendations, you train the patient by:

   Hands-on training: model the recommended task for the patient and having them imitate the task. 1 2 3 4
   Verbal Training: Explaining the recommended task to the patient using verbal expression. 1 2 3 4
   Visual Training: Providing visual models of the recommended task through videos and/or photographs. 1 2 3 4
   Written Training: Writing out the recommended task for the patient to refer to at a later date. 1 2 3 4

   If you answered Never to any of the training types, please explain why.

13. Do you present more than one training option? Yes No

14. How many training options are used on average?

15. Does training vary with each patient? If so, please explain how.

16. What are the most common types of training that you use?

17. Do you train: (Please check all that apply)

   The patient
   The caregiver
   The patient and caregiver together

Always Sometimes Never

18. How long do you train:

   0–15 minutes 15–30 minutes > 30 minutes

   The patient
   The caregiver
   The patient and caregiver together

19. Do you have any additional comments regarding patient compliance?