

## Exploring the Factors Affecting Speech and Language Pathologists' Decision to Transition from Oral to Non-Oral Feeding in Patients with Dysphagia: A Qualitative Study\*

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### ABSTRACT

**Aim:** Speech and language pathologists (SLP) make decisions regarding the use of alternative feeding methods when oral feeding presents a vital risk for the dysphagia patients or when the patient's food intake is deficient. This decision affects the lives of patients from physiological, psychological, and social aspects. The decision mechanisms of SLPs involve the medical status of the patient and evaluation results. This study aims to explore factors influencing the decision of SLPs to transition from oral to non-oral feeding.

**Material and Methods:** Our study was conducted with a phenomenological design. Nine SLPs who had experience working with dysphagia patients participated in semi-structured interviews. Data were coded on the MAXQDA program using a thematic analysis approach.

**Results:** Six main themes were constructed. In addition to the medical status of the patients, participants described giving importance to the reactions of patients and relatives, the moment of explaining their decision to the patient, interactions with other professionals, work environments, experiences and educational backgrounds, and the assessments and therapies patients underwent.

**Conclusion:** The decision mechanisms of SLPs regarding feeding are not only affected by the physiological condition of the patient, but also by factors regarding patient relatives, the SLP's personal approaches, communication with other professionals, the assessment process, and therapy implementation. Non-oral feeding decisions are also linked to their clinical experience and educational backgrounds. It is recommended that SLPs think multi-dimensionally about feeding transitions and give critical importance to their decision processes.

**Keywords:** Non-oral feeding; dysphagia; speech and language pathologist; phenomenological study.

## Dil ve Konuşma Terapistlerinin Disfajili Hastalarda Oral Beslenmeden Oral Olmayan Beslenmeye Geçiş Kararını Etkileyen Faktörlerin Araştırılması: Nitel Bir Çalışma

### ÖZ

**Amaç:** Oral beslenme disfajili hasta için yaşamsal bir risk oluşturduğunda veya hastanın besin alımı yetersiz olduğunda, farklı alternatif beslenme yöntemlerinin kullanımına ilişkin kararı dil ve konuşma terapistleri belirler. Bu önemli karar disfajili hastaların yaşamlarını fizyolojik, psikolojik ve sosyal açılardan etkilemektedir. Dil ve konuşma terapistlerinin karar mekanizmaları, hastanın tıbbi durumunu ve değerlendirme sonuçlarını içerir. Bu çalışma, dil ve konuşma terapistlerinin oral beslenmeden oral olmayan (non-oral) beslenmeye geçiş kararını etkileyen faktörleri araştırmayı amaçlamaktadır.

**Gereç ve Yöntemler:** Çalışmamız fenomenolojik desende yapılmıştır. Yarı yapılandırılmış görüşmelere disfajili hastalarla çalışma deneyimi olan 9 dil ve konuşma terapisti katılmıştır. Veriler tematik analiz yaklaşımı kullanılarak MAXQDA programında kodlanmıştır.

**Bulgular:** Altı ana tema oluşturulmuştur. Katılımcılar, hastaların medikal durumlarının ve yapılan değerlendirmelerin ve tedavilerin yanı sıra hasta ve yakınlarının tepkilerine, kararlarını hastaya açıklama anlarına, diğer profesyonellerle etkileşimlerine, çalışma ortamlarına, deneyimlerine ve eğitimlerine önem verdiklerini ifade etmişlerdir.

**Sonuç:** Dil ve konuşma terapistlerinin beslenmeye ilişkin karar mekanizmalarını hastanın mevcut fizyolojik durumu kadar hasta yakınları, terapistin bireysel yaklaşımları, diğer profesyonellerle iletişim, değerlendirme süreci ve tedavi uygulaması gibi faktörler de etkilemektedir. Dil ve konuşma terapistleri tarafından verilen non-oral beslenme kararları da klinik deneyimleri ve eğitim geçmişleriyle bağlantılıdır. Dil ve konuşma terapistlerinin besleme geçişleri konusunda çok boyutlu düşünmeleri ve karar süreçlerine kritik önem vermeleri önerilir.

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**Anahtar Kelimeler:** Non-oral beslenme; disfaji; dil ve konuşma terapisi; fenomenolojik araştırma.

## INTRODUCTION

Non-oral feeding decisions are made when sufficient oral food intake cannot be achieved because of some problems such as adverse pulmonary sequelae, choking hazard, and concern for malnutrition/hydration. Non-oral feeding can be provided using tools including a nasogastric (NG) tube or a percutaneous endoscopic gastrostomy (PEG) tube (1, 2). Generally, these decisions are reported to be associated with survival rates, specific nutrition and hydration targets, prevention of aspiration, elimination of complications, and the quality of life. Gauderer (3) also stated that, when a non-oral feeding decision is made, oral intake should be reinitiated as soon as possible.

In the non-oral feeding decision, feeding with a NG/PEG/PEJ (percutaneous endoscopic jejunostomy) tube can be considered, especially in the presence of dysphagia that prevents eating and impacts nutritional requirements, depending on bowel function and the patient's tolerance (4-6). During the making of these decisions, formal/informal assessments such as anamnesis, physical examination, clinical swallowing evaluation, videofluoroscopic swallowing study (VFSS) and fiberoptic endoscopic evaluation of swallowing (FEES) may be carried out. After taking anamnesis, the clinician decides the next steps in the evaluation (7). These assessments are useful in the determination of the prognosis based on regular follow-up and the patient's nutritional status and dysphagia. It is generally reported that the patients do not accept their feeding style as non-oral (8, 9).

Speech and language pathologists (SLP) bear a significant role in the oral/non-oral feeding decisions of patients with dysphagia and/or difficulty in maintaining adequate nutrition (10). SLP can conduct these evaluations either through interdisciplinary collaborations or by undertaking the primary role, however Tippet (11) stresses the necessity of interdisciplinary collaboration in the management of patients with dysphagia. The other professionals who work at this decision-making process are physicians (neurologist/gastroenterologist/otolaryngologist), dieticians, etc. Physicians are usually responsible for patients' acute-term recovery from difficult medical situations. Dieticians have crucial roles such as tracking calories and planning meals, especially patients can have oral intake. SLPs describe performing instrumental evaluations, including additional variables (12, 13). On the other hand, it is also among the points noted in the literature that the medical condition of the patient is not the only consideration for SLP as they make this decision. It has also been reported that, when a non-oral feeding decision is committed, the patients can react negatively and refuse non-oral feeding (14). Beyond these pieces of evidence, limited studies were found in the literature that has considered the factors related to the evaluation and treatment processes that affect the SLP and the patient in combination. As mentioned above non-oral/oral feeding decision can have important effect on life. However, we do not know mechanisms of all aspects of the decision-

making process. The dysphagia team makes decision about alternative feeding ways with SLPs leadership. Thus, the present study aims encompass SLPs decision-making mechanisms in detail.

According to the above-mentioned evidence, the SLP's decision of non-oral feeding is dependent on multiple factors. The aim of this study is to explore the factors that influence the decision of SLPs to transition from oral to non-oral feeding.

## MATERIAL AND METHODS

### Design

Our study was approved by Ankara Yildirim Beyazıt University Ethics Committee. In conducting this study, the phenomenological approach was adopted as a qualitative research method. The stages of our study were defined using the Consolidated Criteria for Reporting Qualitative Research (COREQ) (15) guideline (Appendix-A). We pursued two research questions: 1) What are the factors that SLPs pay attention to as they make a decision regarding oral/non-oral feeding in patients with dysphagia? 2) What are the perspectives of SLPs on the physiological and psychological factors that affect their oral/non-oral feeding decisions in patients with dysphagia?

### Participants

At the data collection stage; the purposive sampling method was adopted by extending an invitation to SLPs that delineated the purpose of the study and the phenomenon. Our inclusion criteria were 1) being a speech and language pathologist, 2) having at least 1 year of experience making feeding decisions. In total, 12 participants were reached from four different cities in Turkey. Three of them were not included due to reporting that they did not meet the second inclusion criteria of the study. A total of 9 participants' approaches were examined in this study.

### Trustworthiness

Lincoln and Guba (16) suggested that credibility, transferability, dependability and confirmability were required to ensure trustworthiness. Concerning credibility, participant responses were encouraged by keeping the interview durations long. Field notes and participant consent to data, and the use of the interview questions as a guide were previously described in the data collection and procedure sections. Also, results that did not support the general idea were also included for credibility. In order to promote transferability, it was paid attention that the participants were experienced with dysphagia and had previously made an oral/non-oral feeding decision, as well as living and working in different environments and provinces. Three participants who stated having very limited experience with oral/non-oral feeding decisions were not included in the study. Participant characteristics are described in the participants section. Quotes from the participants are directly provided in the results section. Practices concerning dependability and confirmability (e.g., field notes, use of interview questions) were included in the procedure and data collection stages. In addition, in order to ensure confirmability, data from a randomly selected participant was re-coded by another researcher experienced in dysphagia and there was a satisfactory level of agreement (80%) between two coders.

## Procedures and Data Collection

Semi-structured interviews were used to collect data. The content was prepared by H.T.U, M.K. and M.U. The main content was composed of seven domains: patient history, assessment, decision making, follow-up process, factors affecting the patient, factors affecting the SLP, and collaborating with the other professionals. The researchers paid attention that the guiding questions were neutral and that the SLPs had positive/negative perspectives, and constructed the questions according to the determined contents (Appendix-B). Expert opinions were sought regarding the prepared questions from two different researchers independent of the current study. Of these researchers, one was a SLP experienced in dysphagia and the other was experienced in qualitative studies. Following the receipt of professional opinion, guiding sub-questions were added to the first, sixth, and seventh interview questions. As the interviewer H.T.U. conducted the pilot application and the subsequent interviews. The interviewer is a male speech and language pathologist experienced in dysphagia and maintained his status as an academic at the university throughout the study period. The interviewer had attended two different training programs on qualitative research. Although H.T.U. was recognized as a professional by some of the participants, they did not have a regular work relationship. Participants were contacted via electronic mail and/or, if possible, by providing information regarding the properties of the study face-to-face. During the interview, the interviewer completed the demographic information form (Appendix C) with the participant prior to starting the voice recording.

After the revisions to the interview questions, the interviewer interviewed three SLPs for a pilot application. Following this pilot stage, coding was performed and the order of the questions was arranged. In all interviews, only the participant and the interviewer was present in the environment. The interviews with the participants were conducted face-to-face or via the Zoom Video Communications, Inc. (ZOOM) online program. As recommended by Cresswell (17), the first section of the interviews included a brief conversation, a description of the purpose of the study, and questions about demographic information. All participants were directed the same questions provided in the appendix. The interviews lasted approximately between 40 and 88 minutes ( $M=56.2$  minutes). Voice and video recordings were obtained with participant consent. Field notes were made during and after the interview. The interviewer observed and reported the behaviors and attitudes of the participants concerning the questions and the topic for the coding process. The interviews were conducted by remaining non-leading, being a good listener, and maintaining neutrality. The approaches of the researcher concerning the interview were also recorded. This stage was completed in a period of four months in total. The interview was repeated for some of the participants. Voice recordings were manually transcribed by two authors of the present study. There was high reliability (97%) between the two transcribers. Next, transcriptions were referred to the participants for approval and we proceed to the coding process.

## Statistical Analysis

The MAXQDA software was used for data analysis. In the analysis of the transcribed text, the steps in the manual

suggested by Kuckartz and Rädiker (18) on the use of MAXQDA were followed. The thematic analysis technique was adopted during coding (19). The coding stage was conducted by one researcher (the third author of the present study). For checking reliability we consulted another SLP who does not have a relationship to this study (refer to trustworthiness section). Thus, the codes, categories, and the themes in the research study were constantly revised and reconstructed according to data. During this process, the data for each participant was coded before proceeding to the next participant. A codebook was made during coding. Data saturation was taken into consideration while coding the data for each participant (20). With regard to data saturation, the data collection stage was concluded only when no new codes were added to the previously obtained data.

## RESULTS

All participants shared their experiences about non-oral and oral feeding decisions. The demographic properties of the participants are presented in Table 1. Based on the data analysis performed on these results, we identified six different main themes: 1) Factors affecting the patients (11 categories), 2) Factors affecting the speech and language pathologist (6 categories) 3) Assessment (8 categories) 4) Communication with the other professionals (4 categories), 5) Decision making (3 categories) and 6) Therapeutic process (3 categories). For each theme and category, every participant mentioned at least one comment. The themes, categories constructed about the experiences of the participants regarding the transition of patients from oral to non-oral feeding are depicted in Figure 1. Sample quotes for the coding stage and the codes are shown in Table 2. Each theme is explored in detail in the following sections.

### Factors Affecting Patients

Under this theme, the participants thoroughly discussed the factors that could affect the patients as they made a non-oral feeding decision, the reactions of the patient relatives, the effects of non-oral feeding on psychosocial life/the quality of life, and the associations the patients had with food.

Concerning the tendency of the patients' and patient relatives' reactions to involve rejection, sadness, and aggressive behavior, one of the participants stated:

*In dysphagia cases, I mostly see a combination of refusal, sadness, and anger. (P4)*

In addition to this, Participant 1 explained that it would be appropriate to obtain written consent stating the patient's refusal of the non-oral feeding recommendation when the patients strongly reject the opinion:

*...There are also some that do not want it because of the external appearance to some extent. At this point, our responsibility is to explain the risks and our recommendations once again. If they still continue to refuse, then, accepting all these risks, we ask them to sign a form stating that they accept the risk of pneumonia, the risk of intensive care, the risk of aspiration (P1).*

The participants also added that non-oral feeding could restrict the social life. It is also thought that the refusal of the non-oral feeding decision could have to do with such situations. Concerning the effect on psychosocial life and

the decline in the independent living ability, one participant stated:

*... (patients feeding non-orally) cannot dine at restaurants as we do, their social lives are directly restricted. They can only invite their relatives and guests home. It is not always possible for them to feed independently (P3).*

The participants also reported that the patients had existing associations with food. One participant explained that they would be hopeful due to such associations, as well as their desire to eat, as follows:

*in non-oral patients, for instance, there can be dissatisfaction, because they really crave food, especially if the patient is conscious. For example, I had a patient feeding with PEG, non-orally, who kept going on about kebabs for three months... will I ever be able to eat adana kebab? This was what the patient was constantly asking. For example, that patient was very willing. (P7)*

Along with all of these negative situations, albeit fewer, some participants reported that the families felt safer and more comfortable with non-oral feeding. This was explained by one participant, drawing from their experience:

*some of the families can also give feedback that PEG was much better. And, at times like that, I actually feel happy. Because, they tell me; we've found PEG to be more comfortable. (P5)*

### Factors Affecting the SLP

This theme is associated with psychological conditions, patient-clinician interactions, and work-, education-, and experience-related factors that can affect SLPs during the decision of transitioning from oral to non-oral feeding. For example, the topics discussed by the participants included summarizing the existing problem before announcing the decision and speaking with the patient relatives in a clear and explanatory manner while explaining the non-oral feeding decision to the patient/patient relative. Participant 6 and Participant 9, who had only worked with pediatric case groups, stated that it could be more appropriate to offer a highly detailed explanation to the patient relatives: *But, I also think that one must show sympathy. Then, I am explanatory (to the family). I explain them whatever we have tried. Aspirated, coughed. I describe the throat area in simple terms... (P6)*

*We tell (them), look, we have given you a detailed test. We have performed VFSS or FEES, checked all your structures, considered everything that affected your swallowing ability, one by one, we tell them that it's risky for you, that's how I think. (P9)*

The participants that predominantly had experience with adult and geriatric patient groups (P1, P2, and P7) reported speaking more straightforwardly, more briefly, and more persuasively about the non-oral decision. Participant 1 described speaking persuasively as follows: *"for some part of it, I adopt a stricter tone. No, you will not do that (about oral feeding). This is risky, this is such..."* In general, however, approaching the patient with understanding was emphasized by each of the participants.

Regarding their own psychological states, most of the participants also stated feeling relieved for ensuring the safety of the patient in terms of swallowing when they made a non-oral feeding decision. The participants also mentioned that they could feel sad or upset about having made a non-oral feeding decision. On the other hand, some of the SLPs reported not experiencing any negative feelings and making the decision in a highly professional context. It can be said that there was a difference between the participants in this aspect. Of the participants that experienced negative feelings after a non-oral feeding decision, P8 expressed this situation as follows: *"Honestly, watching people who have swallowed, enjoyed certain things, and had a certain history with food all their lives unable to swallow later on can be more difficult."* Participant 7 reported sharing their experiences with their colleagues working at the same hospital in order to resolve the negative feelings they experience after non-oral feeding decisions:

*...if I'm very, very sad, for example, I can share this situation with my close friends. And this, for example, is sometimes taking work home, really, or, at times, I do share that we experienced such a thing at the hospital whether or not it's someone from my occupation. of course, within the boundaries of patient confidentiality. (P7)*

The participants described that the work environment had an effect on the non-oral feeding decision as well. For example, Participant 2 reported how their non-oral feeding decisions about patients with dysphagia at the hospital had a relationship with the order in the hospital: *"(about the unit at the hospital) since a specific order has not been set, it is not possible to establish order to form a dysphagia clinic or an order regarding dysphagia yet."* Moreover, Patient 8 reported that the technical equipment for FEES could be lacking (e.g. lack of pediatric probes) and that this influenced the assessment process for patients being considered for non-oral feeding: *"... (about FEES) we don't have the pediatric probe, actually. And, as such, it can be a little more difficult."* On the other hand, other study participants reported being mostly satisfied with the order in their work environments.

### Assessment

The participants described the importance of the clinical swallowing evaluation and/or instrumental evaluation in patients for whom a non-oral feeding decision was made. In addition to this, they discussed patient anamnesis, medical parameters (saturation, hydration, and calorie counting), and symptoms. All participants reported taking anamnesis and associating the patient's swallowing characteristics with the anamnesis in patients they considered for a decision to transition to non-oral feeding. Participant 7 described immediately considering non-oral feeding in order to ensure hydration in a patient with a comorbidity:

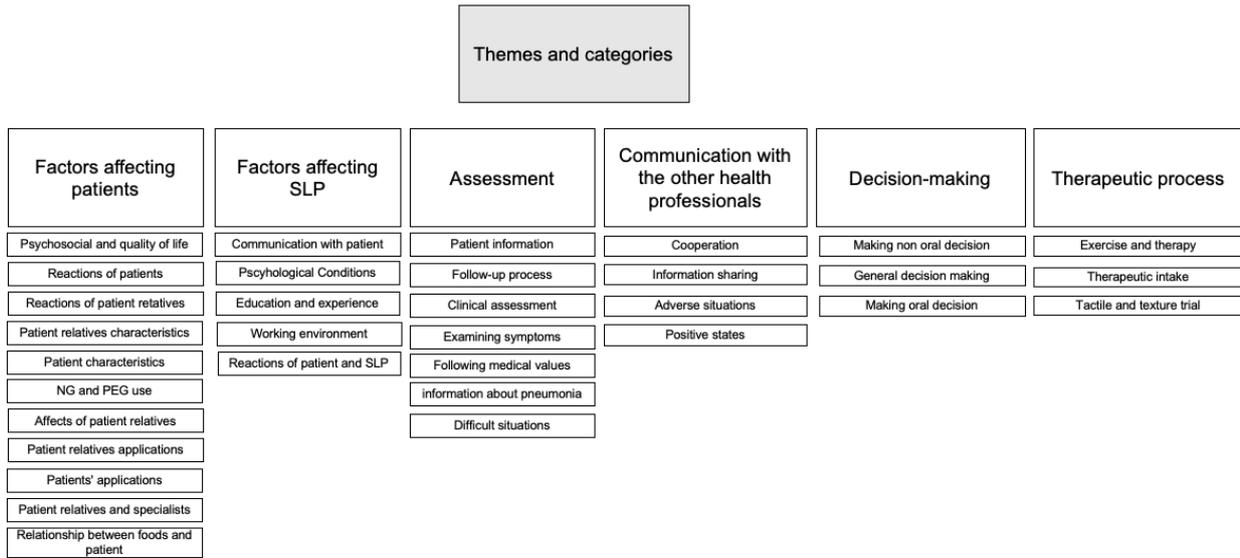
*...(about the patient for whom a non-oral feeding decision was made) a patient we evaluated as an IDDSI Level 0 or 1, for example, is still under risk if renal inflammation or failure is involved, because hydration is incomplete. (P7).*

**Table 1.** Demographic characteristics of participants

Participant	Gender	Educational Level	Experience	Institution	City	Caseload
P1	Female	Master's Degree	3 years	Public hospital	Ankara	Adult
P2	Male	Master's Degree	5 years	Public hospital	Istanbul	Adult
P3	Female	Master's Degree	6 years	Public hospital	Istanbul	Adult/Pediatric
P4	Female	Bachelor's Degree	3 years	Public hospital	Ankara	Adult/Pediatric
P5	Male	Master's Degree	5 years	University hospital	Samsun	Adult/Pediatric
P6	Female	Bachelor's Degree	3 years	Public hospital	Ankara	Pediatric
P7	Female	Bachelor's Degree	5 years	Public hospital	Ankara	Adult
P8	Female	Master's Degree	2 years	University hospital (private)	Istanbul	Adult/Pediatric
P9	Female	Master's Degree	7 years	Public hospital	Ankara	Pediatric

**Table 2.** Examples of coding

Quotes	Code
<i>The child has a history of frequent lung infections. In fact, they go from doctor to doctor. But they are unaware of the situation. When you tell the family that their child will no longer eat by mouth, and that a PEG tube will be placed, a lot of backlash may be encountered.</i>	Rejection of non-oral decision by the patient's relative
<i>In some patients, there may be no compelling side at all. The patient is in a very risky situation, you know, I do not foresee recovery in a very short period of time, and it may happen that I make a non-oral decision, very sadly, in these patients who should definitely switch to non-oral.</i>	SLP feeling sad about making the non-oral decision
<i>If he/she does not have aspiration pneumonia, and if she provides these, I can say the situation is positive for the patient.</i>	Examining symptoms related to aspiration pneumonia
<i>(About a patient who can tolerate oral intake without PEG insertion)...that is, a PEG tube would have been opened for use for two weeks, and that is a very bad situation for this patient, I mean he gets anesthesia and it's a surgical procedure. I mean, I have a lot of problems like this with doctors</i>	Making different (counter) decisions with doctors
<i>..We can continue with NG tube a little longer, or we can switch to a PEG tube, or we can switch to oral intake.</i>	Modifying PEG decision based on post-NG progression
<i>If oral hygiene is not sufficient, I think it is difficult to continue exercising in non-oral cases.</i>	Difficulty of implementing non-oral exercise program



**Figure 1.** Themes and Categories

The participants were in agreement about performing a clinical swallowing evaluation in almost all patients for whom they made a non-oral feeding decision. Meanwhile, some participants described referring to instrumental evaluation in situations where the clinical swallowing evaluation prove insufficient, and that they often did this if their decision was leaning towards non-oral feeding. Participant 5 said the following words regarding the process of referring to instrumental evaluation after a clinical swallowing evaluation:

*After we perform the instrumental evaluations at the hospital, we perform interim evaluations in our unit at our center. After performing another clinical evaluation there, we contact the patient, the hospital, and the physicians if instrumental evaluation is needed.* (P5)

Some of the participants could make a non-oral feeding decision without needing instrumental evaluation. For example, Participant 6 expressed their experience regarding the history they obtained from the patient relative and the medical parameters as follows: *“At that point, if saturation also falls, the idea becomes more concrete in our minds. There are those who cough and those who aspirate. Connecting those dots, and given the child’s history, are we also supposed to perform tests considering the information the mother provided? We only decide if we should give non-oral feeding for some period and continue after that.”*

Although the statements of the participants varied; Participant 1, who experienced difficult situations during moments of evaluation, provided views that diverged from those of the other participants: *“sometimes the patients delay swallowing or directly spit it out because we add a substance like omnipaque into the consistencies we give them, because they don’t like the taste since we use thickeners.”*

Regular monitoring of the follow-up process after a non-oral feeding decision was directly mentioned by Participant 1, Participant 5, and Participant 8:

*Then, after the follow-up after NG, we perform another detailed evaluation. Have these values changed in the two or three days following the cessation of oral intake? Has there been an improvement? We check that.* (P1)

*We provide oral hygiene to all patients, in order to reduce the risk of aspiration we definitely provide oral hygiene. I can say that.* (P5)

*...(after the non-oral feeding decision) the first week, it’s a bit strict like that after.* (P8)

**Communication with Other Health Professionals**

In this theme, SLPs discussed their exchange of information, communication, and collaboration with the other health professionals, and the positive/negative situations they experienced during the process of making a non-oral feeding decision. The participants described the importance of sharing information related to the non-oral feeding decision with the other professionals. Participant 1 described their style of sharing the non-oral feeding decision with the doctors as follows: *“I [write] a detailed report or verbally explain it in detail to their doctor and I also mention this in consultations. I convey it to the doctor in detail, what the risky consistencies are, what kind of route we will follow, oral or non-oral? Which [type of feeding] have we decided on, both verbally and in written form through a consultation?”* Only Participant 6 reported also sharing information with the nurses caring for the patients:

*Since their family members are not there with them, I get that information from their nurses. I observe how the nurse feeds them. I visit at the hour when they’re hungry. I also forward their previous history to the nurses...* (P6)

In addition to underlining the exchange of information with the other health professionals, the participants also discussed the importance of direct collaboration. For example, Participant 5 explained collaborating with the physicians and dieticians in the case of a patient refusing the non-oral feeding decision as follows: *“we had a process of convincing the family by speaking together with the otolaryngologist, the neurologist and the dietician.”*

The majority of the participants mentioned working with otolaryngologists, dieticians, and gastroenterologists. Only Participant 8 stated that it could be necessary to collaborate with psychiatry, providing a different account from the other participants: *“In patients with severe dysphagia, there are usually psychological problems. We personally observe that most of them receive psychiatric support.”* (P8)

The participants described that they could have problems with the physicians while making a non-oral feeding decision. Participant 1 explained that they could have conflicts with some physicians upon making a non-oral feeding decision: *“In some cases we may choose oral feeding, while doctors prefer non-oral feeding and vice versa.”* These kinds of contradictions tend to happen. In addition, Participant 1 also mentioned that the difference between their decisions and those of the physicians could be linked to the additional tests or consultation. Besides the problems experienced by the participants, Participant 1, Participant 2, Participant 3, and Participant 5 described a supportive and positive course by the physicians, albeit less pronounced.

### Decision Making

In this theme, the SLPs included the situations related to the decisions of transitioning from oral feeding to non-oral feeding and from non-oral feeding to oral feeding, as well as decision making in general. The participants described making non-oral feeding decisions in patients with a high risk of aspiration. It was discussed that these decisions could lead to a PEG or NG, that the type of feeding could be changed to PEG based on patient status after NG. In addition, it was described that NG is more commonly used in short-term situations, while PEG is the more appropriate non-oral feeding decision for long-term use. One of the participants spoke of the short-term use of NG as follows: *for example, we send the patient home with NG. But, we give them exercises and I predict that... it's a patient that will stop needing NG in a month and transition to oral. I recommend that they make an appointment with the polyclinic for a month later.* (P9)

Participant 4 described the effects of the symptoms on the non-oral feeding decision as follows:

*You know, the patient is almost not triggered (about the swallowing reflex) by difficult consistencies. And, the patient is not good in cognitive terms, not receiving commands, also not showing any effort about that. For a patient in that condition, I say that oral feeding cannot be continued at that moment.* (P4)

Although fewer, some participants explained making oral feeding decisions based on the medical parameters of the patients without performing tests. As an example of this, Participant 1 described about a patient that only had problems with a single consistency, *“if thickeners are needed to overcome this problem, then I recommend thickeners and follow-up. Oral intake can be resumed without tests.”*

In general, the participants described referring to instrumental evaluation methods in making non-oral and oral feeding decisions. The characteristics of decision making generally included the symptoms and the profiles of the patients.

### Therapeutic Process

The therapeutic process title was comprised by the statements of the SLPs regarding their use of maneuvers and strategies towards supporting the swallowing reflex and the laryngeal elevation of the patients. Under this title, the SLPs were noted to describe oral motor exercises, interventions concerning oral hygiene, and the follow-up period after the non-oral feeding decision. The participants were in agreement regarding regular follow-ups after the non-oral feeding decisions. One of the participants (P7) also described that difficulties concerning the patients' non-oral feeding exercise programs could arise.

Participant 5 described holding a therapy session following the non-oral decision as follows:

*Therapy should be given with NG for a while...and after that, another evaluation should be made to decide whether we will continue with NG or PEG or with a combination of therapy and NG.* (P5)

It was explained that oral motor exercises could be given in addition to maneuvers and swallowing strategies during the therapy sessions held before and after the non-oral feeding decision. Participant 1 described the following about the oral exercises they administered after making a non-oral feeding decision:

*when the reflex reaches the point I desire, when it is becoming stronger, I give the other exercises, too, of course. Tongue-strengthening if there are oral motor deficits. I give exercises, both to improve the range of motion and to increase the strength of the front and the back, I mean, the anterior and the posterior parts of the tongue.* (P1)

It was also emphasized by the participants that it is important to offer therapy before the non-oral decision and monitor the process. In support of this, one participant stated:

*Honestly, in this process, I think there is more of a tendency in the hospital for a quick PEG insertion at the stage of non-oral feeding. My idea is to keep going instead of PEG, working on the exercises and the positions, arranging the diet, and transitioning to oral intake as soon as possible, without inserting a PEG.* (P2)

Most participants consider regular follow-ups and giving exercises after the non-oral feeding decision important. Again, it was described by Participant 4 that it could be difficult to implement regular follow-ups and strenuous regular exercises in patients with diagnoses such as ALS and MS:

*...in diseases associated with muscle deformations such as ALS and MS, we don't transition to non-oral feeding, I mean, not directly. We primarily monitor them. In any case, such patients cannot be included in a very strict exercise program.* (P4)

### DISCUSSION

This study aimed to explore the factors that affect the decisions of SLPs working with dysphagia concerning the transition from oral to non-oral feeding. The results of the present study are considered important as they shed light on multidimensional factors about the decision mechanisms of SLPs with regard to non-oral feeding. Here, it can be stated that SLPs mostly pay attention to the medical parameters and physiological problems of the patients. In addition, the noteworthy themes in the study

included “Factors affecting the patient, Factors affecting the speech and language pathologist, Assessment, Communication with the other health professionals, Decision making, Therapeutic process.”

To our knowledge, there are no reports of patients that were pleased with the non-oral feeding decision declared by the SLP in any study in the literature. Although not extensively, the SLPs participating in our study touched upon this matter, and reported that certain families felt safer and more comfortable due to non-oral feeding. Consequently, the approach of the SLP should be free of prejudice about the patients, as the presence of such groups, albeit a minority, can offer insights for the clinical practices. Furthermore, Robinson et al. (21) mentioned that the psychological states of the relatives of patients with dysphagia also had to be taken into account while making suggestions and that the status of the patient with dysphagia could have variable effects on the family members. As the results of our study indicate that the relatives also react poorly, it is thought that it would be more appropriate for SLPs to include the psychological states of the patient relatives in their evaluations as they declare the non-oral feeding decision.

In the present study, the SLPs highlighted the disapproving reactions of the patients about the non-oral feeding decision, in line with the other studies in the literature. For example, a study by Colodny (8) examined the excuses offered by the patients when they did not comply with the recommendations of the SLP. Some of these reasons were reported as blaming the SLP or denying the swallowing problem. Similarly, Sharp and Bryant (14) and Horner et al. (9) also reported that the patients could refuse the assessments for swallowing or the interventions, even mentioning that it would be useful to obtain a written consent in such situations. The results presented in our study also described that the non-oral feeding decision made by the SLPs could be refused by the patient, at times resulting in moments that leave the SLP in a difficult spot. Both the results of our study and the studies mentioned above emphasize that written consent is an important requirement under such circumstances. Regarding the situations described above, Kelly et al. (22) expressed that SLPs needed to have a high awareness of the legal and ethical frameworks. The common takeaway from the information found in the literature and our study is that SLPs may need to be able to cope with the psychosocial aspect, including the reactions of the patients to the existing problematic situation (especially, situations that significantly impact the quality of life such as transition to non-oral feeding).

Social and cultural differences can have various effects in individuals with dysphagia. Thus, strict dietary restrictions may challenge the patient-therapist compliance (23). Limiting the diet choices of a patient with dysphagia was described to be a serious issue (24). It was also observed in our study that these patients had specific associations with food, even mentioning their thoughts about these associations to the SLP. Accordingly, it is possible to say that it could be important for the SLP to take account of the potential associations these patients have with food during the non-oral feeding decision process. On the other hand, non-clinical factors, the wishes of the patients, cultural matters, and beliefs were also reported to be

related to non-oral feeding (25). For example, as described by Gordon and Alibhai (26), religion can view the alternative methods that include non-oral feeding in the framework of basic care that should not be refused. Here, given the data provided by the SLPs in our study and evidence from the literature, it is thought that individualized approaches that are inclusive of cultural and belief-related factors as well as the patient’s wishes would be more appropriate.

In our study, it was reported that the psychological states of the SLPs themselves could also be affected upon making a decision to transition from oral to non-oral feeding. However, some of the SLPs (e.g., Participant 5) expressed feeling relieved when they made a non-oral feeding decision due to switching the patient to a safer form of feeding. It can be said that there is no agreement suggesting that making this decision has an absolute negative effect on the SLPs. It is thought that the obtained information is important for SLPs working actively with dysphagia in interpreting their clinical experiences as well as for SLP students. Moreover, based on the results of this study, it could be suitable to include the factors that affect the SLP in courses on dysphagia as part of the syllabi of SLP candidates. Although the SLPs reported the presence of positive/negative situations that affected them in making the said decision, they, in agreement, emphasized demonstrating an understanding and explanatory approach towards the patient and the patient relatives as they declared this decision. This information can be viewed as an implication in terms of clinical skills for SLPs working/planning to work with dysphagia.

In the present study, practice from training programs and previously having made this decision i.e. having experience were among the factors that could influence the decision to transition from oral to non-oral feeding. It is possible to state that the factors associated with the educational backgrounds of the SLPs are also important in the decision to transition to non-oral feeding. Hence, enhancing the experiences of intern SLP students regarding the making of critical decisions in patients with dysphagia and/or offering them broader opportunities could entail an easier non-oral/oral decision by SLPs in the future.

It is reported that assessment is highly important in patients with dysphagia and that instrumental/non-instrumental techniques are frequently utilized (11, 27). The SLPs in our study also reported using clinical swallowing evaluation and instrumental evaluations as they made a non-oral feeding decision, as well as modifying the components of the evaluation based on the status of the patient. The SLPs described not only focusing on the physiological processes of the patients, but also on their cognitive processes, as well as evaluating their motivation to do the exercises. This result is thought to be one of the important clues as to the clinical practices of SLPs. In addition to this, it can also be said that the monitoring of saturation was highlighted by the SLPs included in our study, as described in a study by Tippet (11). This was to such an extent that, as one of the striking results under the “decision making” theme, some of the participants (e.g., Participant 1) attested to the importance of the medical parameters and reported being able to make non-oral feeding decisions based on these parameters without further tests in some cases. It was

reported that a clinical swallowing evaluation had been performed for almost all of the patients who were transitioned to or evaluated for non-oral feeding by the SLPs in our study. It was observed that the SLPs made predictions about the further tests (e.g., VFSS, FEES, etc.) after this assessment. It can be said that this stage is shaped by the clinical swallowing evaluation performed prior to the non-oral feeding decision.

In a study by Howells et al. (28) the authors report that there are benefits of SLPs working with other professionals. These results likely indicate the need for improving the physician-SLP collaboration. Although the SLPs in our study reflected their awareness of interdisciplinary studies, it was also expressed that the collaborations with the other professionals included negative experiences along with positive communication, as well as the presence of problems concerning professional boundaries. Accordingly, some of our participants (For example: Participant 8) reported obtaining positive outcomes when multiple disciplines and SLPs worked in unison. Therefore, work can be undertaken towards increasing the awareness of physicians regarding the role of the SLP in the non-oral feeding decision and the awareness of SLPs regarding the benefits of potential collaborations with physicians.

#### Implications

The results of our study revealed the factors involved in the transition to non-oral feeding due to certain necessities (aspiration, oxygen saturation level, intolerance of oral intake, etc.). These factors are also associated with certain clinical implications. The expected involvement of the factors affecting the patient, the decision-making mechanisms, and assessment and therapeutic procedures are in agreement with the aforementioned evidence and appears consistent with the literature. In addition, to our knowledge, the factors affecting SLPs and collaboration with the other professionals, which are included among the results of the present study, have not been extensively studied in the literature before. Therefore, our study indicates that SLPs should also carefully self-monitor during the non-oral feeding decision. It is important for SLPs to be aware of clinical progress, decisions, goals, and patients' internal states throughout the decision-making process. This study shows that SLPs may have negative emotions related to the decision-making process. Regarding communication with the other professionals, the valuable outcomes of this study include that conflicts can be observed in the communication with physicians, dietitians, otolaryngologists, and neurologists. The value of interdisciplinary work is well-appreciated but SLPs should be careful and use common language when sharing their decisions with other professionals. This information can serve as a guide for SLPs working in the field of dysphagia who are not experienced in procedures of making decisions of vital importance for the patients, such as non-oral/oral feeding decisions. It might be linked to the fact that all of the interviewed SLPs were working in Turkey. Because, in the health system in Turkey, there is an order in which the occupational borders of physicians are very broad in service roles, and thus the autonomous capacity of SLPs can be limited. It would not be inaccurate to say that the existing system might have influenced these

results. Therefore, it is likely that conducting inter-cultural studies on these topics would yield more diverse content. This study has certain limitations. In Turkey, the field of SLP is still burgeoning. Therefore, although it was possible to obtain an adequate level of different codes, categories, and themes, it is a fact that there was no heterogeneity in the years of experience our participants had. We think that it would be useful to repeat this study in the coming years. Another limitation is that the present study included nine participants. Although data saturation could be achieved, we cannot overlook the fact that the results are not generalizable in terms of SLP practices. Qualitative studies that will be conducted with participants serving under different healthcare systems can offer more comprehensive data. Our study only used semi-structured interviews. Further studies can also use focus group interviews.

#### CONCLUSION

Speech and language pathologists are involved in an interaction with the patient, the patient relatives, clinicians, and other health professionals as they make a decision regarding transition from oral to non-oral feeding. Although it is not clear whether or not these individuals directly affect the decision of the SLP, it can be said that they are among the important factors at the stage of making this decision. The reactions of the patients/patient relatives to the non-oral feeding decision, the effect of the non-oral feeding decision on the psychosocial life and the quality of life are among the elements that have a place in the decision-making mechanisms of SLPs. These are followed by the communication with the patient, the SLP's own psychology, and the SLP's educational and experiential background. Among the other factors that affect the decisions of SLPs is assessment, while the medical history of the patient, the follow-up process after the decision, the clinical swallowing evaluation are also of importance. These are followed, in order, by the communication with the other health professionals, the decision-making process, and the therapeutic process. The process by which SLPs decide to transition patients from oral to non-oral feeding is multidimensional and dynamic.

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