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Received: 23 May 2023 | Accepted: 8 September 2023

DOI: 10.1111/tct.13674

RESEARCH ARTICLE

THE CLINICAL TEACHER

Exploring perceptions of factors aiding the development of critical thinking in adult dysphagia: A study among fourth-year speech-language pathology students

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Funding information
The University of the Witwatersrand funded the publication of this article. No additional research funding was granted or used.

Abstract

Background: The assessment and management of adult dysphagia in South Africa is complex as appropriate intervention requires a balance of theoretical knowledge and critical thinking to ensure service delivery is appropriate within a resource-constrained health care system. Critical thinking involves the skilful evaluation of information to make informed decisions for effective assessment and intervention. It is imperative for Speech-Language Pathologists (SLPs) to cultivate these skills from an early stage in their careers. This study therefore aims to investigate the factors perceived to enhance critical thinking to shed light on how students transition theory into clinical decision-making. This is vital to inform future practice in the realm of dysphagia and to enhance Speech Therapy education.

Methods: A qualitative research design was utilised to identify what facilitators assist SLP students to develop critical thinking skills in adult dysphagia. Data were gathered from students across three universities. Fifteen participants answered a self-developed online survey, and of those, four participated in a follow-up focus group. The data were analysed using a top-down approach and reflexive thematic analysis.

Results and Discussion: The results revealed that viewing videos on instrumental assessment measures, case studies and peer learning were perceived to expand critical thinking theoretically. Similarly, critical thinking was best supported in clinical contexts, which provided opportunities to observe expert clinicians at the bedside, obtain individual feedback and access supervision.

Conclusion: The findings yielded recommendations for clinical educators involved in dysphagia training. This is necessary to better prepare SLP students to provide contextually relevant and responsive dysphagia services.

1 | BACKGROUND

Dysphagia can be broadly defined as a swallowing difficulty characterised by challenges moving saliva, liquid, food or medication from the mouth towards the stomach in three stages known as the oral, pharyngeal and oesophageal phases.[1,2] Dysphagia is heterogenous in nature, highlighting that a thorough understanding of the anatomy and physiology of swallowing is necessary for both student and

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qualitied Speech-Language Pathologists (SLPs) to conduct full diagnostic assessments.[3] Similarly, the decision to use direct or indirect dysphagia management techniques is complex as it requires careful consideration of a client's medical status, personal preferences and overall quality of life.[4] A recent South African study on dysphagia by Coutts and Pillay determined that at the bedside, decision-making processes of qualified SLPs are influenced by bedside assessment factors, the patient, the SLP's knowledge and experience in dysphagia, contextual elements and the multidisciplinary team.[5] These factors are important to consider when looking at the development of critical thinking skills in students.

When reflecting on dysphagia intervention in the South African context, it is important to consider the additional challenges placed on clinicians. These include barriers to securing basic utensils required for oral hygiene procedures and limited access to instrumental assessment measures, due to budget and financial restraints.[6] In addition to these resource limitations, there is a mismatch between the number of qualified SLPs and the significantly large caseload of patients requiring services in both the public and private health care sectors.[7] Therefore, the demand on the time and expertise of SLPs is significant. It is important for student SLPs to be aware of these contextual factors and how they can impact on critical thinking and decision making. This needs to be introduced at a theoretical level prior to students moving onto their practical component. Studies that reflect on dysphagia practices are primarily conducted in economically developed countries, which have a different health care context. It is therefore difficult to translate these practice patterns or guidelines into a South African context. This has an impact on teaching and learning and making knowledge and skill development transformative and contextually responsive.

At the time that this research was conducted, SLP caseloads were on the rise with the increasing presence of dysphagia, due to the coronavirus pandemic, which placed added strain on an already fragile health care system.[7] This is because the virus itself led to acute respiratory distress syndrome, which often requires a form of oxygen therapy.[8] In addition, during the peak of the coronavirus pandemic, SLPs were tasked with mitigating the possibility of transmission when carrying out aerosol-generating procedures, such as dysphagia assessments.[8] This meant that the focus shifted from utilising instrumental assessment measures as gold standard to valuing the bedside clinical swallow evaluation (CSE) as a diagnostic tool. This highlights the responsibility that was placed on SLPs to evolve their approach to patients and decision-making processes. It is also important to note that during the peak of the pandemic, student learning made a sudden shift from face to face to online. The findings of this study therefore need to be analysed with this context in mind.

In order to adjust clinical services, abstract thought processing known as critical thinking is required.[9] This describes the continuous process by which a health care practitioner uses their theoretical and clinical knowledge, together with patient-specific information, to define a problem.[10] This problem is then revised as further information is gathered until a final diagnosis and intervention plan is decided upon.[10] To develop critical thinking, research suggests that SLP students move along a continuum from novice to expert level by developing theoretical and clinical knowledge, and integrating these factors with increased clinical exposure.[5] Pre-pandemic, following dysphagia theory lectures, students would move into a practical placement, whereby they would be able to integrate their dysphagia theory into practice. During the pandemic, the majority of lectures at most universities shifted to an online approach to learning, particularly the theory component. Clinical practicals were able to continue but under strict pandemic lockdown level restrictions.

To develop critical thinking, research suggests that SLP students move along a continuum from novice to expert level by developing theoretical and clinical knowledge, and integrating these factors with increased clinical exposure.

In the South African context, transferring learnt concepts in the area of dysphagia into clinical settings has been identified as a challenge by SLP students.[7] This may be owing to reduced engagement with instrumental assessment measures, due to resource scarcity and the pandemic restraints, as well as absent standard dysphagia teaching methods through higher education institutions.[11] Furthermore, the integration of critical thinking frameworks in undergraduate training is not formally addressed.[12] There is no standardised manner in which dysphagia is currently taught, and thus it is difficult to understand how knowledge translation and critical thinking skills develop. This may be attributed to the fact that while it was originally thought that critical thinking develops spontaneously, there is increasing data to suggest that student SLPs develop these skills through explicit instruction and direct teaching as they move along a continuum.[9,13,14] Thus, there is a need to find ways to introduce and develop critical thinking in the curricula to enhance praxis and clinical competence.[7] However, research on the processes and factors influencing critical thinking in student SLPs is limited locally in South Africa and globally. This study therefore aims to explore the student perceptions of critical thinking processes in adult dysphagia and determine factors that facilitate the development of these skills in these students.

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2 | METHODS

2.1 | Research question and objective

This study aimed to determine how fourth-year SLP students in South Africa are developing critical thinking skills in adult dysphagia. One of the primary objectives of this study, which will be the focal point of this article, was to identify the perceived theoretical or clinical facilitators assisting SLP students to develop these skills at an undergraduate level.

2.2 | Research design and context

Data were obtained from students completing their fourth year of study in a Bachelor's Degree in Speech-Language Pathology in the year of 2021. The study focused on fourth-year students, as they stood on the cusp of completing their degrees and transitioning into community service. This juncture provided a unique opportunity to assess their critical thinking skills in dysphagia, offering insights into their readiness for professional practice upon qualification. All South African universities offering the degree were approached but the study continued with three universities who had responded timeously with consent for the data collection process. Two of the universities were situated in the province of Gauteng and one in KwaZulu-Natal. This enhanced diversity and range of participants, given the variations in theoretical and clinical instruction methods pertaining to dysphagia across these different institutions. A qualitative and exploratory research design method was selected for this study. This method of design enabled the collection of rich and meaningful data on critical thinking in dysphagia, which has been underexplored in previous research. Furthermore, it allowed the researcher to delve into the participants' experiences, perceptions and insights in a comprehensive manner.

2.3 | Participants

Participants were selected using criterion-based purposive sampling according to a predetermined criterion. The inclusion criteria stipulated that participants needed to be above 18 years old, be registered as a SLP student at 1 of the 3 South African universities who had consented to participate, have both theoretical and clinical exposure to adult dysphagia, and have access to an electronic device with internet connection, as this was in keeping with the lockdown level requirements at the time.

2.4 | Data collection

The researcher developed an online survey using REDCap, which featured questions aligned with the theoretical and clinical aspects of the SLP students' curriculum. One intermediary from each university was contacted for assistance to distribute the link to the survey to fourth-year students. These were the administrative assistants or staff members within the Speech Therapy departments. A total of 15 participants from the three universities were obtained. There are approximately 30 final year students in each university, thus the number of participants obtained was small in comparison to the total number of possible candidates at the time. However, 15 participants enabled the researcher to conduct a thorough data analysis. The participants' demographics, in terms of their age and university institution, has been detailed in Table 1.

All 15 participants answered the survey, which consisted of three main sections. The first section included a pre-questionnaire to gather information on the participants' number of clinical hours and confidence levels in adult dysphagia. In the second section, a 1-minute video depicting the Fibreoptic Endoscopic Evaluation of Swallowing (FEES) procedure on a patient was provided for analysis. The FEES is regarded as a prevalent assessment method in dysphagia intervention and was thus integrated into the survey to align with the course objectives and outcomes. Consent to use the video was obtained from the patient and the SLP responsible for recording the footage. The final section consisted of six open-ended questions regarding intervention for this patient. The questions aimed to evaluate critical thinking skills by assessing the participants' ability to analyse signs and symptoms of dysphagia, interpret a FEES video for aspiration risk, make informed feeding recommendations, consider assessment approaches, set intervention goals and demonstrate awareness of contextual factors in patient management.

At the end of the survey, participants were invited to take part in a follow-up online focus group by providing their student number email addresses to preserve anonymity. The aim of the focus group

TABLE 1 Participants' demographic information.

Participant	Age	University institution
P1	21	University of KwaZulu-Natal
P2	21	University of the Witwatersrand
P3	22	University of the Witwatersrand
P4	23	University of the Witwatersrand
P5	21	University of KwaZulu-Natal
P6	22	University of KwaZulu-Natal
P7	21	University of the Witwatersrand
P8	22	University of the Witwatersrand
P9	23	University of the Witwatersrand
P10	22	University of the Witwatersrand
P11	22	University of the Witwatersrand
P12	22	Sefako Makgatho Health Sciences University
P13	21	University of the Witwatersrand
P14	22	Sefako Makgatho Health Sciences University
P15	22	University of the Witwatersrand

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was to delve deeper into the participants' perspectives and foster an open dialogue concerning critical thinking in the context of dysphagia intervention. Participant 2, Participant 3, Participant 9 and Participant 10 formed part of the focus group. As the researcher was a fourth-year student at the time, to reduce researcher bias, a research assistant was used to facilitate the focus group and to review the transcriptions. The focus group consisted of nine semi-structured interview questions, which were aimed at exploring the impact of various factors on critical thinking, both theoretically and clinically, and to encourage a debate on the role of explicit teaching in developing these skills. Participants were also given an opportunity to suggest enhancements for learning and teaching critical thinking in dysphagia intervention. The focus group was conducted in English, was 45 minutes in length and was audio-recorded and later transcribed verbatim.

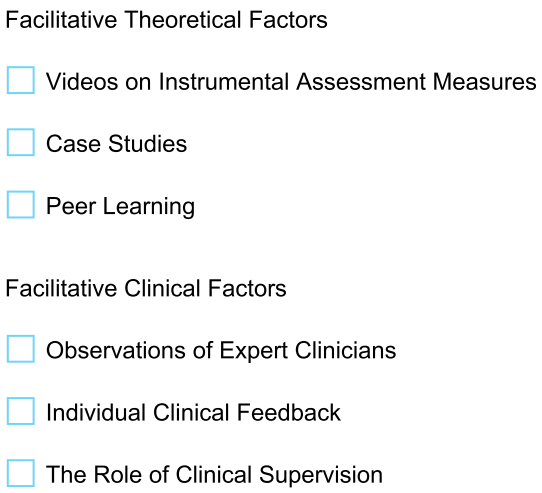


FIGURE 1 Main and sub-themes identified.

2.5 | Data analysis

Prior to data analysis, a top-down approach was applied by the researcher. This approach allowed the researcher to decide on topics or themes of interest that are frequently based on a theory that is being tested. Braun and Clarke's 2012 6-step procedure of reflexive thematic analysis was then employed to analyse the data. The researcher carefully reviewed and identified patterns in the data collected from the surveys and focus group discussion, allowing themes related to critical thinking in dysphagia to emerge naturally and inform the study's findings. The themes were then reviewed, defined and named.

2.6 | Trustworthiness

Trustworthiness was achieved by credibility, transferability, dependability and confirmability. Credibility was ensured through triangulation by gathering data from multiple sources (survey and focus group) and more than 1 location (Gauteng and KwaZulu-Natal). Transferability was achieved by providing descriptions of the research context including the location, socio-economic context, health care system and participants' background information. Furthermore, dependability was attained through auditing to obtain verbal and written peer and expert opinions of the content transcribed. Finally, confirmability was ensured by maintaining an audit trail between the researcher, research supervisor and assistant, which documented the research process and decisions made during data collection, analysis and interpretation.

3 | RESULTS AND DISCUSSION

In investigating facilitators perceived to assist SLP students to develop critical thinking skills, two main themes emerged based on reflexive thematic analysis: Facilitative theoretical factors and facilitative clinical factors. The sub-themes developed under each of the main themes are presented in Figure 1.

3.1 | Facilitative theoretical factors

As part of the online survey, participants were asked to select any factors of the course that they felt enhanced their understanding of adult dysphagia theoretically and developed their critical thinking skills. The following suggestions were provided and participants were allowed to select more than one option: Videos on instrumental assessment measures, peer collaboration to solve clinical cases, PowerPoint presentations with audio-recordings, exposure to case studies, written explanations and visual illustrations. The bar graph presented in Figure 2 highlights the number each variable scored. These variables were discussed during the focus group, which was open-ended, allowing participants to diverge from the main discussion. However, variables scoring a high level were explored in more depth to gather information on the rationale for why these factors were perceived to aid in the development of critical thinking skills the most.

3.2 | Videos on instrumental assessment measures

The results highlighted that exposure to videos on instrumental assessment measures enabled participants to visually observe the anatomical and physiological processes of swallowing, which subsequently enhanced their overall comprehension and critical thinking. These findings were reflected in Participant 10's comment regarding videos: 'It's important to have exposure to what [swallowing] looks like and be able to identify all the landmark features, because you first need to have that down in order for you to develop the critical thinking skills to take what you see, and apply that further'. This was extended by Participant 2, who explained that unlike written

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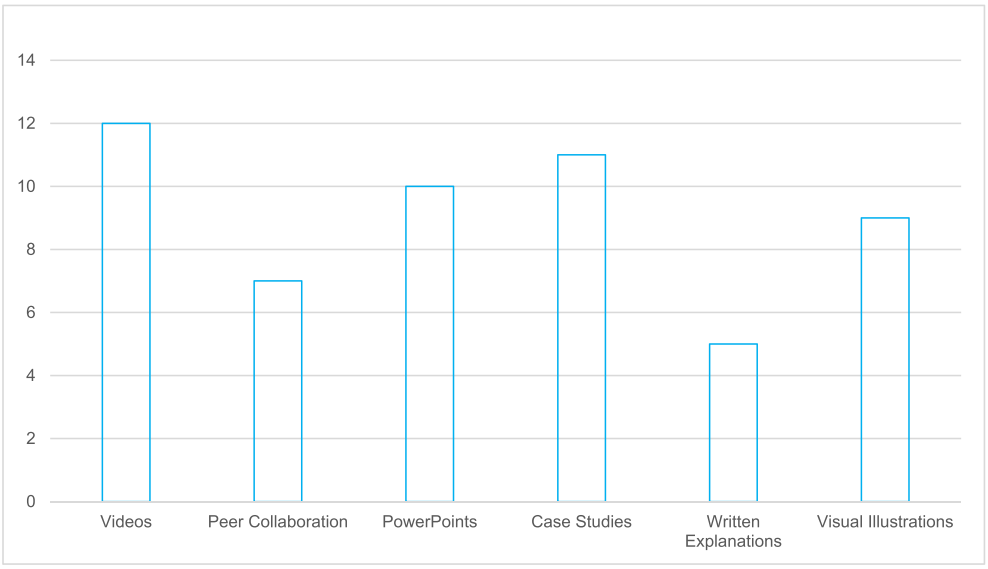


FIGURE 2 Bar graph illustrating facilitative theoretical factors.

explanations, videos increase confidence levels to evaluate what has been observed and think critically. She stated: 'Critical thinking personally for me isn't developing from reading signs and symptoms on a slide, but is emphasized through videos of anatomical features or signs and symptoms of aspiration'. Interestingly, it was determined that in the absence of a lecturer, which can be attributed to the shift to online teaching during the pandemic, participants experienced difficulty recognising and extrapolating what they had observed. For example, Participant 9 stated: 'When we watch the videos, we are on our own and we don't know what we are looking for, whereas when we have guidance and modelling, [we can] focus on what to look for and why, why is it abnormal, or why is it not'.

Videos increase confidence levels to evaluate what has been observed and think critically.

These findings align with existing data highlighting the crucial role of adapting academic course content to align with technological advancements and student preferences.[15] Prior to the pandemic, videos were already incorporated into the dysphagia course; however, the pandemic necessitated a more extensive use of videos, as students navigated modules independently, often in the absence of a lecturer. The heightened reliance on videos aimed to better supplement and explain the information, particularly in instances where complex practices demanded close-up demonstrations and real-life illustrations that were challenging to convey solely through written text.[16] Therefore, the inclusion of videos discussed in the presence of a lecturer is a paramount recommendation to evolve dysphagia teaching methods in future to meet the changing educational landscape.

The inclusion of videos discussed in the presence of a lecturer is a paramount recommendation to evolve dysphagia teaching methods.

3.3 | Case studies

A second factor identified to strengthen theoretical knowledge and critical thinking in dysphagia was case studies. One participant expressed that case studies are comparable to real-life cases, suggesting that the critical thinking skills used to solve clinical cases are similar to those employed in a case study. Participant 9 conveyed: 'A case study gives you a real-life case and through that, even though it is only writing, you are thinking about what if you saw that patient in the bed in the hospital, and you are thinking through that very critically, and that is where the critical thinking comes in'. Additionally, the participants noted that part of successful case-based learning is the ability to interact and collaborate with peers. Participant 10 described: 'When you go through it with your peers, you [are] able to take their responses and build on that so it expands your thinking'. Similarly, participants regarded input and guidance from a lecturer equally essential. Participant 10 conveyed that this is because 'the lecturer who has experience in that area is able to guide [students] on how to take that case study, unpack it and use those clinical and critical thinking skills to take written knowledge and literature further'. However, a suggestion provided by one of the participants was to create naturalistic opportunities to develop critical thinking skills in the

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context of case-based learning. This is highlighted in Participant 2's quote: 'I feel like providing us with those case studies and then working through them with us during lectures, and not just purely including them in assessments where you are tested on that knowledge, but rather speaking through it with your lecturer and with your fellow peers, would be important'. This suggests that case studies should not only be included in examinations but also introduced within a lecture setting to foster discussions aimed at cultivating critical thinking skills.

Case studies are comparable to real-life cases, suggesting that the critical thinking skills used to solve clinical cases are similar to those employed in a case study.

Research has demonstrated that the traditional approach to education of SLPs predominantly uses lecture-based teaching strategies.[17] These strategies refer to the traditional method of instruction where a lecturer imparts knowledge to students through formal presentations, often involving verbal explanations and visual aids like slides or handouts.[17] In this approach, students typically play a passive role in receiving information. However, recently there has been a shift towards adopting problem-based and case-based learning methods in the curricula, which encourage more active participation.[17] This adjustment is essential as data has illustrated that case studies that are problem-based, student-centred and lecturer-facilitated assist students to develop critical thinking skills.[18] A study on undergraduate nursing students in a middle Eastern country found that students exposed to such teaching approaches are better prepared to integrate theory with practice, as they have been given the opportunity to solve case scenarios.[18] Collectively, existing research and this study underscore the role of case studies in fostering active engagement and cultivating critical thinking skills in health care education.

3.4 | Peer learning

Peer learning is an educational approach where students collaborate and learn from each other through shared experiences, discussions and interactions. The research findings portrayed a consensus that peer learning promotes a shielded environment for students to explore content and to develop their critical thinking skills at a theoretical level in dysphagia. Participant 10 stated: 'I think when it comes to dysphagia, peer learning provides so many opportunities to learn from someone without the pressure of having to know everything. You get to see something from someone else's perspective and then build on what they are seeing, to develop your own critical thinking skills'. Participant 2 identified a gap in the current dysphagia teaching framework, being the limited opportunities to engage with peers. This gap became heightened during the pandemic, where face to face interactions between students was limited. This participant highlighted that in future, peer collaboration should not only occur under assignment nature, but should be encouraged through more case discussions, to develop critical thinking skills. This is reflected in the statement: 'When we are given the opportunity for peer learning, it is typically under a project or assignment nature, so you don't really get to hear someone else's opinions on that case. You get a mark back but it's not like you've critically engaged, as you see that 'Oh well, we've either got it or we didn't'. Whereas if we had to do case presentations, where we are given something and we have to work through it and present it to each other, we are able to see not only two people's thought processes but a whole degree's way of working through a case. This allows you to critically apply different information and their perspectives to your own cases, whether paper-based or real-life, in the future'.

Peer collaboration should not only occur under assignment nature, but should be encouraged through more case discussions, to develop critical thinking skills.

The benefits of peer learning are well established in literature.[19] Research shows that peer learning reduces anxiety, increases feedback to develop confidence and mitigates challenges due to peer support.[19] Moreover, it encourages students to generate new knowledge, as working with others promotes verbalisations which increases metacognitive skills.[20] Based on both current research and the results of this study, sound recommendations of ways to implement this approach in dysphagia training have emerged, which can promote confidence and expand students' critical thinking theoretically, which can be later transcended to the clinical space.

Students to generate new knowledge, as working with others promotes verbalisations which increases metacognitive skills.

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3.5 | Facilitative clinical factors

Participants who completed the online survey were also given the option to select factors that positively enhanced their critical thinking skills in a clinical setting. The options provided included: Observations of expert clinicians conducting bedside assessments, observations of expert clinicians conducting instrumental assessments, observations of peers, increased clinical supervision, individual clinical feedback and group tutorials. The results are represented in Figure 3.

3.6 | Observations of expert clinicians conducting assessments at the bedside

This study revealed that expert observations at the bedside during dysphagia clinical training allows SLP students to critically reflect on their skill development and those of the clinician to rethink and adjust their approaches. To illustrate, Participant 9 expressed: 'When you observe an expert clinician, your critical thinking skills are increased because you have your own set of critical thinking skills and your ways of performing therapy, and when you [observe them], you take in what they are doing, and you see if that works for you, what they are doing that you would implement, and what you need to question and re-think'. Participant 3 further highlighted: 'When observing an expert, you are able to critically think, 'Okay so the therapist is doing this and our notes say this, how is this the same, or why is the therapist not doing this?' which develops your decision-making'. These comments highlight that through observations of expert clinicians conducting bedside assessments, the ability to both reflect on personal skills and the skills of the clinician is deemed possible. This was regarded by the participants as a factor that could heighten critical thinking in clinical practice. Thus, clinical course creators should consider implementing a period of expert observations at the bedside for undergraduate SLP students in their adult dysphagia course.

Clinical course creators should consider implementing a period of expert observations at the bedside for undergraduate SLP students in their adult dysphagia course.

Research has highlighted that critical thinking is formulated on the premise of developing clinical instincts, which are essential during the CSE at the bedside.[5] These instincts are developed through clinical experience and observations of others. Particularly observations of expert clinicians have been determined to bridge the gap between academic knowledge and emerging clinical skills.[21] However, the specific reasons for why expert observations aid in dysphagia training appears relatively limited in current research and should be further explored.

Critical thinking is formulated on the premise of developing clinical instincts.

3.7 | Individual clinical feedback

This study further revealed that individual clinical feedback is a leading factor in facilitating critical thinking skills. Feedback from supervisors

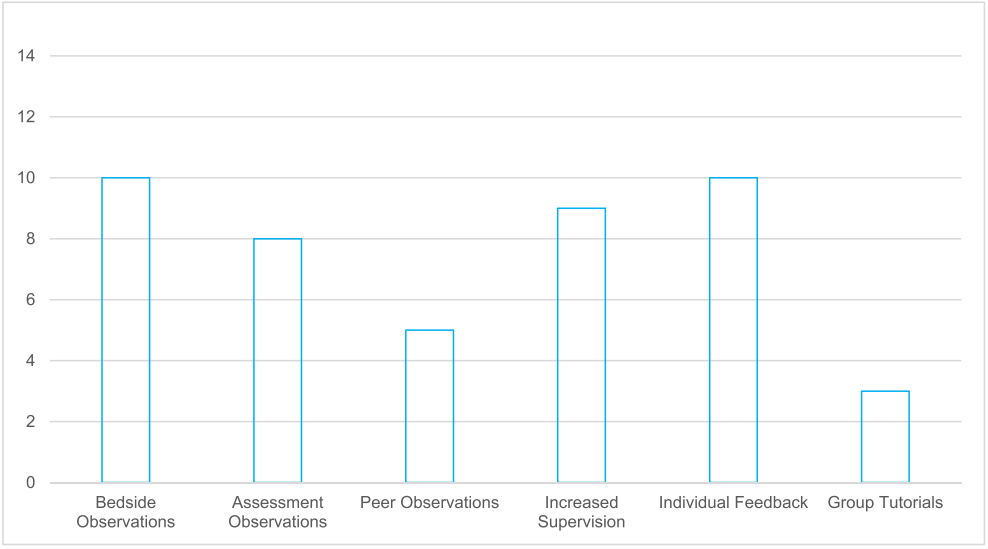


FIGURE 3 Bar graph illustrating facilitative clinical factors.

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across various practical sites exhibits variability, but students noted that receiving comprehensive and frequent feedback enhances their ability to adapt their approaches, engage in critical thinking and independently address cases in the future. First, individual feedback was found to elevate the confidence levels of the participants by providing them with verbal reassurance regarding their actions. Participant 2 conveyed: 'You are being provided with information to reassert what you have done and build your confidence. It shows you that the train of thought that you are currently on is correct'. Moreover, it was deduced that through constructive feedback, participants felt better prepared to adapt and alter their therapy approaches. Finally, it was determined that feedback enables students to reflect on their individual approaches, strengths and limitations, which is a form of critical thinking. Participant 9 explained: 'I think that [individual feedback] increases your critical thinking skills because you are getting feedback based on what you are doing and your therapy style'.

Students noted that receiving comprehensive and frequent feedback enhances their ability to adapt their approaches, engage in critical thinking, and independently address cases in the future.

Some research has shown that to facilitate a gradual transition to expert level on the continuum, SLP students should have access to support systems including a supervisor for mentorship and feedback. One study highlighted that in the absence of a supervisor, students are compelled to develop their own personal and professional abilities.[21] However, in this instance, they lack the opportunity to receive feedback, which is necessary to bridge the gaps in both theoretical and clinical knowledge. In contrast, students who rarely experience working independently without the guidance of a supervisor risk having difficulty developing critical thinking skills and being able to think spontaneously on demand.[22] Thus, a careful balance of feedback and support to develop these skills needs to be provided in undergraduate training.

3.8 | The role of clinical supervision in developing critical thinking

Given the complexity of adult dysphagia intervention, many participants felt hesitant and doubtful of their abilities to manage a case appropriately. However, with adequate supervision they felt more confident in their abilities to apply theoretical information to a case and think critically. This is because access to supervision enabled them to consolidate gaps identified in their theoretical knowledge and translate this information into clinical settings. Participant 2 disclosed: 'As we are still students, being exposed to [dysphagia] physically and then being taught in that process through supervision will help us become more confident to problem-solve to think critically more independently'.

Access to supervision enabled them to consolidate gaps identified in their theoretical knowledge and translate this information into clinical settings.

While supervision is viewed as a facilitating factor, few studies have identified that access to supervision post-graduation upon entering community service is not always deemed possible in the South African context given the broad challenges associated with the public health care sectors, and the demands placed on seniors to effectively manage their teams.[23] Resultingly, supervision should be maximised at an undergraduate level to better prepare SLP students to enter the workforce and function independently during their community service year.[23]

4 | CONCLUSION

In conclusion, this study delved into the factors perceived to facilitate critical thinking development among fourth-year Speech-Language Pathology students in the context of adult dysphagia. The findings align with existing research, emphasising the complex array of considerations SLP students must navigate when making clinical decisions and the continuum of critical thinking skills development from novice to expert. This underscores the need to prioritise the cultivation of critical thinking skills within undergraduate SLP education, particularly within the South African context.

Theoretically, the study recommends a multimodal approach to learning, integrating videos on instrumental assessment measures as well as case studies that mirror real-world medical scenarios. Furthermore, fostering opportunities for peer learning through case presentations and group discussions is advocated. On a clinical front, the study suggests incorporating expert observation periods, followed by supervised practical experience and personalised and regular feedback for students.

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Beyond the Speech-Language Pathology scope, these implications extend to health care education more broadly. The study's insights into the synergy between theoretical knowledge and clinical practice underscore the importance of fostering critical thinking skills across health care professions. Educators can adapt the multimodal instructional approach and scaffolded clinical exposure strategy to other disciplines. This study's outcomes also emphasise the impact of supervision during the transitional period from education to practice, suggesting avenues for enhancing health care training programmes and policy frameworks. In doing so, this research contributes to the broader advancement of health care education, ultimately benefitting patient care and the overall quality of health care practice.

4.1 | Study strengths and limitations

This study's strengths encompass its innovative contribution to the understanding of critical thinking development among undergraduate SLP students, shedding light on a relatively unexplored area within dysphagia. Set in the unique context of South Africa, it highlights theoretical and clinical factors for educators to consider when adjusting the theoretical and clinical dysphagia course content. However, limited data collection time resulted in a small sample size, and the study's focus on specific universities may impact generalizability. Additionally, the researcher's role as a fourth-year SLP student could introduce biases despite mitigation efforts.

AUTHOR CONTRIBUTIONS

Alia Catania conducted the research study and wrote the manuscript. Kim A. Coutts was responsible for the study conceptualization, study supervision and a contributing author. Nancy Barber was the research assistant and contributing author.

ACKNOWLEDGEMENTS

The authors kindly acknowledge the participants of the research study and focus group facilitator for their involvement in the project and their valuable contributions. We further thank each university and the coordinators thereof for granting permission to conduct research with students at their institutions and for their assistance in navigating this process.

DATA AVAILABILITY STATEMENT

Data not yet uploaded but can be made available through the corresponding author.

CONFLICT OF INTEREST

The authors have no conflict of interest to disclose.

ETHICAL APPROVAL

Ethical clearance was granted by the Human Research Ethics Committee (Non-Medical) of the University of the Witwatersrand (ref. no. STA_2020_09).

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How to cite this article: Catania A, Coutts KA, Barber N. Exploring perceptions of factors aiding the development of critical thinking in adult dysphagia: A study among fourth-year speech-language pathology students. Clin Teach. 2024;21(1):e13674. https://doi.org/10.1111/tct.13674

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