



"Getting Back Into School Mode": Experiences Of Former Speech-Language Pathology Assistants In Graduate School

By: **George W. Wolford**, Laura L. Wolford, Schea Fissel Brannick,
Emily N. Anderson, and Kaitlin McCloud

Abstract

The purpose of this article is to describe the speech-language pathology master's program experience for two groups of students: students with former speech-language pathology assistant (SLPA) experience (fSLPA) and students without SLPA experience (nSLPA). Results are relevant to current SLPAs who are considering attending graduate school and university faculty members involved in program design. Method: A survey was distributed electronically to students nationwide. The survey included both Likert-style questions and open-ended responses. A total of 85 student responses were included in data, 43 fSLPAs and 42 nSLPAs. Qualitative and quantitative results were analyzed separately and then synthesized together in a mixed-methods analysis. Results: Although the study was not designed to directly measure stressors, bottom-up qualitative analysis resulted in a framework of internal and external stressors, internal and external supports, and learning and growing. Stressors and supports were described by participants as intertwined, and a given event (e.g., the start of clinical rotations) did not map neatly to stressors or supports for all participants. fSLPAs reported higher perceptions of clinical success, feeling different than their peers, and the perception that fSLPAs were more successful in graduate school. Taken together, these results converged to develop seven findings. For instance, one finding was that, although both groups reported external and internal stressors, the specific stressors somewhat varied by group. Conclusions: Findings are discussed in relation to transformational learning theory and prior works on stress within the field. Implications for program development and prospective speech-language pathology graduate students are discussed.

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“Getting Back Into School Mode”: Experiences of Former Speech-Language Pathology Assistants in Graduate School

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ABSTRACT

Purpose: The purpose of this article is to describe the speech-language pathology master’s program experience for two groups of students: students with former speech-language pathology assistant (SLPA) experience (fSLPA) and students without SLPA experience (nSLPA). Results are relevant to current SLPAs who are considering attending graduate school and university faculty members involved in program design.

Method: A survey was distributed electronically to students nationwide. The survey included both Likert-style questions and open-ended responses. A total of 85 student responses were included in data, 43 fSLPAs and 42 nSLPAs. Qualitative and quantitative results were analyzed separately and then synthesized together in a mixed-methods analysis.

Results: Although the study was not designed to directly measure stressors, bottom-up qualitative analysis resulted in a framework of internal and external stressors, internal and external supports, and learning and growing. Stressors and supports were described by participants as intertwined, and a given event (e.g., the start of clinical rotations) did not map neatly to stressors or supports for all participants. fSLPAs reported higher perceptions of clinical success, feeling different than their peers, and the perception that fSLPAs were more successful in graduate school. Taken together, these results converged to develop seven findings. For instance, one finding was that, although both groups reported external and internal stressors, the specific stressors somewhat varied by group.

Conclusions: Findings are discussed in relation to transformational learning theory and prior works on stress within the field. Implications for program development and prospective speech-language pathology graduate students are discussed.

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Little is currently known about the experiences of former speech-language pathology assistants (fSLPAs) in graduate school. Students in speech-language pathology master’s programs enter at varying states of their adult lives. Some come directly from undergraduate programs, which they entered directly from high school. Others matriculate after working professionally, either in a related field (e.g., nursing or education), an unrelated field (e.g., banking), or the field of speech-language pathology

itself (often as an SLPA). Contemporary adult learning theories (Taylor & Hamdy, 2013) all posit that a person's prior experience shapes how they gain new knowledge and learn new skills. If this is the case, then these students' disparate backgrounds might have distinct impacts on how they experience the stressors of graduate school and how they develop into speech-language pathologists (SLPs). Specifically, their history practicing in the field may lead fSLPAs to have a very different graduate school experience from their peers and matriculate with different strengths and weaknesses. Understanding these differences may help speech-language pathology graduate programs tailor supports for students or identify strong candidates in the admissions processes.

SLPAs

SLPAs are a diverse group. SLPA licensure requirements vary state to state (American Speech-Language-Hearing Association [ASHA], 2022) but frequently include a bachelor's degree with related coursework or completion of an SLPA program. Additionally, ASHA has recently established a certification program (ASHA, n.d.) that provides more standardized requirements. Although an SLP is an autonomous provider who can diagnose and treat a wide variety of disorders (ASHA, 2016), SLPAs work under the guidance and supervision of an SLP (ASHA, 2022). They cannot diagnose disorders or independently guide the course of treatment.

Prospective speech-language pathology students have historically been advised that experience in the field boosts their chances of being admitted to a speech-language pathology master's program (Cleeland & Gregg, 1998). It stands to reason that fSLPAs might have several potential advantages in their master's programs in comparison to peers without experience in the field. They have worked under an SLP's direct guidance and have practiced completing tasks that SLPs also complete. For example, Ostergren and Aguilar (2015) found that practicing SLPAs' assigned tasks were primarily implementing treatment plans and documentation: two skills that speech-language pathology graduate students also practice during their clinical rotations. Another potential advantage is experience with the supervisory process. Although the supervisory process is different in graduate school, SLPAs have experienced a supervisory relationship where they have received feedback and direction on their practice.

However, the supervisory and practice experiences of SLPAs are heterogeneous, partially depending on workplace and state regulations. In a survey of SLPs (Ostergren & Aguilar, 2015), participants described numerous concerns related to how SLPAs are trained and supervised, as well as the quality of their service

provision. One key area of concern was the "misuse of SLPAs" (p. 238), which described SLPAs being asked to practice outside their scope by taking on responsibilities solely under the purview of the SLP, such as assessment. These concerns highlight a potential disadvantage for SLPAs entering graduate programs: If they have received inadequate training, supervision, and support, then the reported advantages described above may not be realized. Indeed, these results imply that fSLPAs may even have more difficulty in graduate programs than their peers because of habituated patterns of ineffective practice, which then must be unlearned.

Adult Learning Theory and the Impact on fSLPAs

Adult learning theories may also inform our understanding of how fSLPAs may learn in graduate school. Humanist and constructivist ideas about learning were applied to adult learners in Malcolm Knowles' (1978) andragogical model of adult learning (Mukhalalati & Taylor, 2019). This model indicates that adults are self-directed learners for whom learning is built on past experience, with new knowledge being incorporated into pre-existing heuristics. Adults learn by building upon their preexisting knowledge and adding increased understanding based on new information. Andragogy posits that adults are self-directed and intrinsically motivated learners who ask questions and seek out the answers themselves.

Transformative learning theory (Mezirow, 1997) further builds on this, indicating that learning happens when learners come across a new experience or piece of information that contradicts their current world view. This confusion is referred to as a "disorienting dilemma" (Mezirow, 1993), and it triggers a process that leads to a new understanding. When confronted with this disorienting dilemma, learners reflect or use reasoning skills to shift their understanding of the world to one that incorporates the new information/experience. They also seek consensus from others and solidify their new beliefs and actions. The very act of learning is a transformative experience because it changes the way the person views the world and provides new information. The exact nature of this transformation, of course, is reliant on the learner's prior conceptualization of the world, self-reflection, and past experience.

If prior experience impacts how people learn new information, it follows that fSLPAs might have a different graduate school experience than their peers. Given their prior experience with administering speech-language therapy, the andragogical model (Knowles, 1978) would indicate that they should learn more readily and comfortably than their peers, particularly in areas where they already

have practiced. Transformative learning theory (Mezirow, 1993) would indicate that fSLPAs might experience disorienting dilemma less frequently or in different contexts than their peers. However, researchers have yet to study this directly.

Graduate School Is Stressful

A speech-language pathology master's program is often considered a time of great stress (Beck et al., 2020; Malandraki, 2022). Graduate students' stress and anxiety are on the rise across fields and within speech-language pathology specifically (Malandraki, 2022). Prior studies of graduate student experiences have found that a student's stressors vary depending on their overall locus of control (Abouserie, 1994). Individuals with an external locus of control (Rotter, 1966) attribute results to external forces and describe having little control over how their lives play out. Individuals with a more internal locus of control believe that they are responsible for outcomes. Though other variables certainly impact stress and locus of control can vary based on the scenario, an external locus of control is associated with reports of higher stress (Abouserie, 1994; Karkoulian et al., 2016). Within the speech-language pathology literature, students have described stressors as internal or external as well. External stressors indicate a focus on events or circumstances that the student perceives as causing their feelings of stress or anxiety; internal stressors consist of negative feelings, thoughts, and emotions that students experience. When discussing internal stressors, students often describe how they feel or what they do using terms like *anxiety* (e.g., DiCristofaro, 2018), *surviving* (e.g., Killian, 2017), or *juggling* (e.g., Riland & Gardner, 2017). Although stress within speech-language pathology programs is well documented (e.g., Beck et al., 2017; Beck et al., 2020), the effects of these stressors on the students' overall well-being are not necessarily all-encompassing. Researchers have also found that many students appropriately cope with the stress of graduate school (Beck et al., 2021) or describe the stress as manageable (Lincoln et al., 2004).

Speech-language pathology graduate students experience new stressors that were often not in their undergraduate programs (Beck et al., 2020). Supervised clinical practice is a key part of their graduate education and may be entirely new to the student, as it is not a component of many undergraduate programs (Riland & Gardner, 2017). Such clinical practice is a major source of stress, particularly at the beginning of students' programs. Though students report continuously increasing expectations and standards throughout their graduate programs (Rapillard et al., 2019a), their anxiety tends to decrease after their first clinical experiences (Chan et al., 1994; Plexico et al., 2017; Sleight, 1985). Beck et al. (2020) examined stress

and perfectionism in graduate and undergraduate students. They found that although "school" was a top stressor for both groups, "clinic" and "managing time" appeared as top stressors for just graduate students (p. 11). This stress may stem from students' awareness that clinical education is crucial to becoming competent practitioners. Student participants have noted that "academic coursework is a foundational and overwhelming aspect of graduate training that cannot fully prepare a student clinician for all clinical problems" (Rapillard et al., 2019a, p. 7). Despite the known interplay between clinical experience and students' stress, studies usually do not control for or assess the effects of students' clinical experience prior to matriculation. As such, it is not clear whether fSLPAs experience the stress of new clinical experiences similarly to their peers.

The start of clinical experiences also has a major impact on novice clinicians' personal growth and self-concept. Supervised clinical practice has a truly transformational learning goal: to develop the student from a novice to an autonomously practicing clinician. This is sometimes conceptualized as shifting into a new professional identity (Cardell & Bialocerkowski, 2019; Cruess et al., 2015). For many students, this new role may not be the only novel experience; they may also be new to receiving supervision. The supervisory relationship is important to their transformational learning; students' relationships with their clinical mentors impact clinical growth (Rapillard et al., 2019a) and overall emotional well-being (Plexico et al., 2017). The clinical educator serves as an evaluator and a mentor, providing guidance and role-modeling (Higgs & Mcallister, 2007), which appear to extend beyond direct clinical practice. Clinical educators model what it is like to be a clinician, and they may teach unintentional lessons. For example, Malandraki (2022) found that most students believe that their clinical educators do not model good self-care strategies. Students may be learning about stress and time management from their mentors as well.

Performance in Graduate School

While studies have not directly assessed whether fSLPAs perform differently in graduate programs from their peers as a central focus, some have included SLPA experience as a variable. In a recent scoping review of predictors of SLP student success in graduate school (Johnson et al., 2021), only two of the 21 studies reviewed included SLPA experience as a factor. Neither found strong links to performance. Richardson et al. (2020) found that students with prior SLPA experience tended to have lower undergraduate grade point averages (GPAs), but they considered this effect weak and did not find a clear link to student performance. Halberstam and Redstone's (2005)

study included prior work experience, including SLPA experience, as a variable related to graduate school success. They did not find a link between the two.

While SLPA experience may not have a clear impact on specific grades or outcome measures, this does not inherently mean that the graduate experience of an fSLPA is the same as their peers. This subjective experience of fSLPAs has not been directly studied, yet it is valuable knowledge. Prior research has illuminated the importance of understanding the student perspective so that university faculty may support their students' learning (e.g., Plexico et al., 2017; Wolford et al., 2021). Additionally, it may add valuable nuance to programs' admissions' decisions and give current SLPAs insight into what their graduate school experience might be like.

Purpose and Research Questions

The purpose of this article is to describe the experiences of fSLPAs in graduate school relative to students without SLPA experience (nSLPAs). Of primary interest was how the fSLPAs described their experiences in supervised clinical experiences because they have had more clinical interactions than nSLPAs. Our two research questions were as follows:

Research Question 1: How do current speech-language pathology master's candidates describe their graduate school experiences?

Research Question 2: Are there differences between fSLPAs and nSLPAs in their perceptions of supervised clinical experiences?

Method

Ethical approval for this study was obtained from the Midwestern University Institutional Review Board, and all students consented to participate in the study procedures.

Participants

Participants ($n = 85$) were adult students, over the age of 18 years, who reported having or not having fSLPA experience. All participants were either current SLP graduate students or had graduated but not yet started their clinical fellowship year. The criteria for categorizing a student as an fSLPA were necessarily broad given the different pathways by state for becoming an SLPA. Students were identified as fSLPAs if they (a) reported having ever worked as an SLPA in any state, (b) reported being licensed as an SLPA in any state, or (c) reported being an SLPA.

Design

In this survey study, a mixed-methods convergent parallel design (Creswell et al., 2011; Schoonenboom & Johnson, 2017) was used to analyze both quantitative data from Likert-style questions and qualitative data from open-ended question types. All data were collected from the same survey instrument to ascertain a more complete picture of the graduate student experience, which matched the exploratory nature of the research questions.

Participants

Participants were recruited nationally via an electronically distributed survey on various social media sites, including Facebook, Reddit, GradCafe, and the ASHA Community Boards. The research team answered questions from potential participants on those boards if a response was posted or directly messaged. A secure web application for online survey and database management, REDCap (Harris et al., 2009, 2019), was used to host the survey and store the data. Participants were entered into a raffle for the possibility of receiving \$25 to complete the survey.

Survey Development and Distribution

In total, the survey (see Appendix A for full survey) was 60 questions and included three sections: demographic information, Likert-style questions, and four open-ended questions. The demographic information section asked students to self-report scores on academic metrics (e.g., Graduate Record Exam (R) [GRE] scores, grade point average [GPA]), fSLPA experience/licensing, characteristics of their graduate school experience to date (e.g., length of time, whether they were doing clinical work yet), and timing of their graduate education relative to their graduation from an undergraduate program.

Most survey questions were Likert-style questions that were developed based on prior literature on SLP graduate student experiences (Rapillard et al., 2019a, 2019b) and professional transitions in allied health fields (Chachula et al., 2019). The scale ranged from 1 = *strongly disagree*, 2 = *disagree*, 3 = *slightly disagree*, 4 = *neutral*, 5 = *slightly agree*, 6 = *agree*, and 7 = *strongly agree*. Broadly, the survey questions were designed to investigate student perceptions of their preparedness for graduate school; stress and coping skills; perceptions of class and clinic; growth in graduate school, if fSLPAs have a different graduate school experience; and critical thinking skills. Four questions were free response questions, from which qualitative data were extracted. These questions asked about their perception of performance on academic coursework, clinical rotations, experiences with supervision, and the transition to graduate school.

Quantitative Data Analysis

In this study, we were interested in how participants perceived a particular construct (e.g., their own “stress” or “critical thinking skills”) described above. We evaluated the internal consistency of all the questions within each of eight a priori survey categories to create composite scales for each category. Strong internal consistency means that all survey questions within a category measure or represent the same theoretical idea, also called a construct. Strong internal consistency also suggests it is possible to aggregate individual survey questions into one composite scale. We calculated Cronbach’s alpha values for each of the eight survey categories, and interpreted values greater than .70 to indicate strong internal consistency. For survey categories that showed strong internal consistency, we aggregated individual question data into a composite scale that represented a category or construct. When the questions within a category showed internal consistency below .70, the individual questions were either tested within a related logical category (e.g., a question about feeling prepared for clinic may have been grouped into the “clinically successful” category instead of “preparedness”) or analyzed in isolation. This approach resulted in eight composite scales (see Appendix C), and four questions that we analyzed in isolation (Questions 1, 9, 24, and 31).

The quantitative data were assessed for normality and found to be left skewed, which is a common of count data (Hutchinson & Holtman, 2005). Therefore, these data were analyzed with descriptive and nonparametric analyses. A Mann–Whitney *U* test does not require a normal distribution of data and was chosen to assess for differences between the two independent groups on Likert-type question responses. These analyses were carried out using the *groupedstats* package (Patil, 2018) in R Version 4.0.5 (R Core Team, 2020). The alpha was set at .05, and the multiple tests were adjusted for error using the *p.adjust* function.

Qualitative Data Analysis

Open-ended responses from participants were uploaded into NVivo (QSR International Pty Ltd., 2020). Since the first author had some knowledge of the results of the quantitative data, initial coding was primarily completed by two other coders (the second and fourth authors) so as not to unduly influence the qualitative analysis. The first author provided assistance and direction as requested and then joined during the axial coding phase, described below. Both coders were blind to participants’ responses to Likert-style questions. They were also blinded to group assignment; neither author knew whether a particular open-ended response came from an fSLPA or nSLPA participant at the time of the coding. Therefore, all qualitative responses were coded without respect to fSLPA or

nSLPA status or any quantitative response before finalizing the coding system to examine differences. This eventually led to some codes being endorsed by only the fSLPA or nSLPA group, but the coders were blind to the participant membership at the time of coding.

Coders used an initial “descriptive code,” also called a “topic code” (Saldaña, 2009, p. 70), to summarize the meaning of each participant’s free responses, using an open-coding framework (Glaser et al., 1968). Codes were organized per coder into a codebook. Based on the different focus of each of the four open-ended questions, we predicted that the topic codes for each would be different. Therefore, topic codes were generated by coders from one question at a time, instead of generating one master list of topic codes from all four questions. After a question was coded, the coders discussed their codebooks to find codes with similar meanings and generated a common code with a clear definition. The wording of the codes was derived verbatim from participant responses whenever possible.

Once the topic coding for each question was complete, the coders met to discuss and combine coding frameworks through a consensus coding process where coders would arrive on a common codebook. Then, each coder coded the answers again, applying this new joint framework. During this process, the codes that emerged from the data were similar across all questions, so they were ultimately combined into one framework. This cycle occurred twice before reaching saturation, where all elements expressed by participants had been assigned a code. Then, axial coding was conducted whereby coders met to group the codes into related sets. Axial coding (Strauss & Corbin, 1990) traditionally involves grouping similar codes into two higher order sets: Collections of conceptually related codes are “concepts” and collections of conceptually related “concepts” are mapped to larger “categories.” The coders and the first author grouped the codes into “categories” with tentative comments about the potential “concepts.” The first author determined potential concepts, completed a final technical check that NVIVO combined the files correctly, and completed a conceptual check to verify each code was consistent with the operational definitions. These data were then presented to two SLP master’s candidates—an nSLPA and an fSLPA—for member checking, a technique to evaluate whether the results derived from an analysis resonate to those from the group being described (Merriam, 1998). They examined the codebook and example responses, commenting on goodness of fit. After the member checking, the first author made minor modifications and sent the coding back to the other two coders to verify. After the final coding system was verified, counts of codes, concepts, and categories were delineated by group to describe potential similarities and differences between groups.

Credibility of qualitative analysis was established along numerous dimensions (Gerlach & Subramanian, 2016; Plexico et al., 2005). While all qualitative data are inherently subject to the biases and views of the coders, steps were taken to reduce the impact of any biases. All three coders came from different educational and clinical backgrounds, which provide multiple perspectives or interpretations of the data. This aligns with the idea of triangulation, using multiple avenues to arrive at a conclusion. Multiple participants provided data, and multiple coders provided their perspectives. Coders discussed their own biases openly during meetings in the coding phase as well. Member checking was also employed with two current graduate students to account for fSLPA and nSLPA perspectives on the codes themselves.

Presentation of the qualitative data not only includes the categories, concepts, and codes, but also the counts of participants who responded for each. Of note, if a single response contained multiple codes (e.g., “confident” and “grateful”) that fit within a single concept (in this case, “positive feelings”), the participant was counted once for each code but only once (not twice) for the encompassing concept. When discussing the counts of participants, we followed typical qualitative conventions and did not “test for significance” between group counts. However, in the convention of Lim et al. (2013), we describe common codes that both groups endorse and differences when one only group endorses that code (e.g., five fSLPAs endorse an idea in contrast to zero nSLPAs). We also describe suggestive differences when there are more than 3 times as many in one group than the other (e.g., a suggestive difference would be found if five fSLPAs endorsed a code in contrast to one nSLPA, but not two nSLPAs). For clarity, examples of responses are presented by group (fSLPA, nSLPA) without individual identifiers.

Results

Differences in Respondent Demographics

Eighty-six participants responded to the survey. Of the 86, one was an exact duplicate in both the quantitative and qualitative responses and was removed, leaving $n = 85$. All responses are detailed in Appendix B. Roughly half of the respondents (43/85, 50.6%) were fSLPAs, which was fortunate though unanticipated. Only 11.6% of the fSLPAs entered graduate school directly after their undergraduate degree, a sharp contrast to the 61.9% of nSLPAs. While the majority of fSLPAs (67.4%) entered graduate school between 1 and 5 years after their undergraduate degree, around 9.3% entered graduate school after being out of the field for more than 5 years. No nSLPAs reported having been out of school for more

than 5 years. In their graduate programs, both groups reported working with similar populations and settings (see Appendix B).

Some of the demographic responses by the fSLPAs were unanticipated. For example, the majority of fSLPAs (88.37%) reported having clinical experiences prior to attending their graduate programs while fewer of the nSLPAs (23.81%) reported clinical experience. The research team had anticipated that all fSLPAs would report having prior clinical experience. This may represent a subgroup that completed an fSLPA training program followed by direct entry into graduate school, as two of the fSLPAs reported matriculating to graduate school immediately after undergraduate graduation. Additionally, most (81.4%), though not all, SLPAs hold a state license. Perhaps this was because they directly matriculated to a graduate program after training or hailed from a state that did not require SLPA licensure. Those participants reported working with clients during the qualitative portion of the study, so it is also possible they misinterpreted the question. These participants were retained because they met other inclusion criteria, though the group is clearly heterogenous.

Since the survey was completed before the launch of the American Speech-Language Hearing Association Certified SLPA program, no respondents were certified. Most fSLPAs reported practicing for at least a year, and the great majority (79.1%) reported working with the preschool and school-aged pediatric populations. Most practiced in the disorder areas of language (88.4%), speech (86.1%), social communication (81.4%), augmentative and alternative communication (72.1%), and fluency (53.5%). Though self-reports of GRE score and GPAs were also collected, 15/85 participants reported a GRE that was outside the possible range (e.g., 230), which led the research team to question the validity of the responses to the GRE and GPA questions. The GPA data were also strongly left skewed such that most participants answered in the highest (3.6–4.0) category. These data were therefore not included in further analyses.

Quantitative Results

A summary of the medians and Mann–Whitney U test values are presented below in Table 1. Composite scales are reported first followed by individual questions. The names of the composite scales refer to the type of questions that participants would agree with. For instance, the “Clinically Successful” scale is composed of questions like “I’m comfortable with clinical problem solving” or “I know the best interventions to use for my clients.” Appendix A also reports Cronbach’s α for the given scale and the questions that comprise the scale. The specific questions that are not a part of any composite scale are printed in the table verbatim.

Table 1. Quantitative data.

Composite scales	Median score		U	p value
	fSLPA	nSLPA		
Clinically successful**	5.2	4.4	1311	.002
Academically successful	4.75	4.75	840	1
Positive clinical education Experiences	6	6.125	834	1
Managing well	4.8	4.65	978	1
Classes prepare me for clinic	5.5	5	1058	.86

Question	Median score		U	p value
	fSLPA	nSLPA		
<i>Q1: My undergraduate coursework prepared me well for graduate school</i>	5	6	695	.35
<i>Q9: I think my experience is pretty similar to other students in my program*</i>	5	6	586	.03
<i>Q24: I feel more confident providing therapy than writing appropriate therapy goals</i>	6	5	978	1
<i>Q31: I feel that students with prior SLPA experience are more successful in graduate school***</i>	5	4	1408	< .001

Note. fSLPA = students with former speech-language pathology assistant (SLPA) experience; nSLPA = students without former SLPA experience. *Denotes $p < .05$. **Denotes $p < .01$. ***Denotes $p < .001$. Italicized font indicates that this is a single question rather than subscale. The scale ranged from 1 = *strongly disagree*, 2 = *disagree*, 3 = *slightly disagree*, 4 = *neutral*, 5 = *slightly agree*, 6 = *agree*, and 7 = *strongly agree*. For instance, a response of 6 to the “Clinically Successful” subscale indicates that, on average, the participant agreed with statements that they were successful in clinical practice.

One composite scale, “Clinically Successful,” and two questions, Q9 and Q31, were statistically significantly different between groups. These are discussed below with histograms to illustrate the trends. In terms of perceived clinical success, both groups clustered around the middle, though the students who perceived themselves as the least clinically successful were nSLPAs, and the students who perceived themselves as the most clinically successful were

fSLPAs. See the histograms below of responses in Figures 1, 2, and 3.

The nSLPAs more frequently agreed that their experiences in their program were similar to peers’ (Q9). More fSLPAs reported very low levels of agreement with this question, in contrast to very frequent agreement from nSLPAs. See Figure 2 below.

Figure 1. The ratings scale ranged from 1 = *strongly disagree*, 2 = *disagree*, 3 = *slightly disagree*, 4 = *neutral*, 5 = *slightly agree*, 6 = *agree*, and 7 = *strongly agree*. fSLPA = former SLPA; nSLPA = without SLPA.

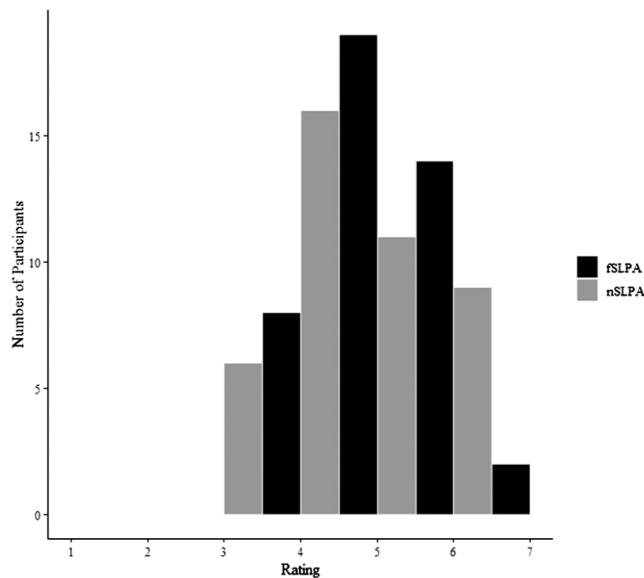


Figure 2. *Q9: I think my experience is pretty similar to other students in my program.* The rating scale ranged from 1 = *strongly disagree*, 2 = *disagree*, 3 = *slightly disagree*, 4 = *neutral*, 5 = *slightly agree*, 6 = *agree*, and 7 = *strongly agree*. fSLPA = former SLPA; nSLPA = without SLPA.

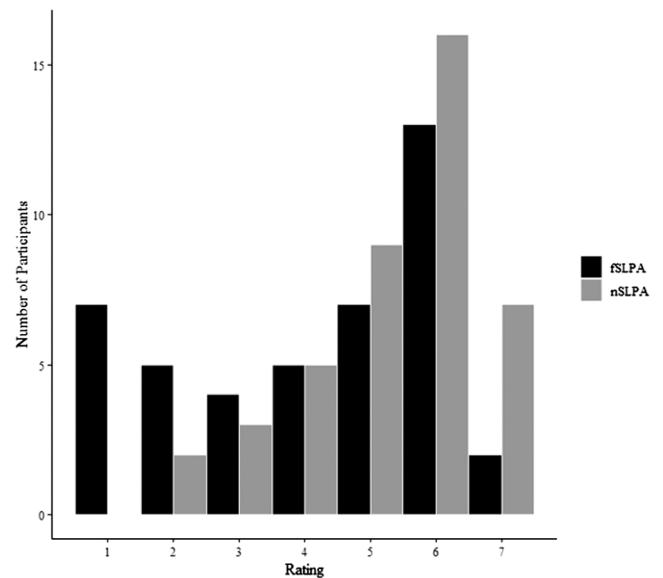
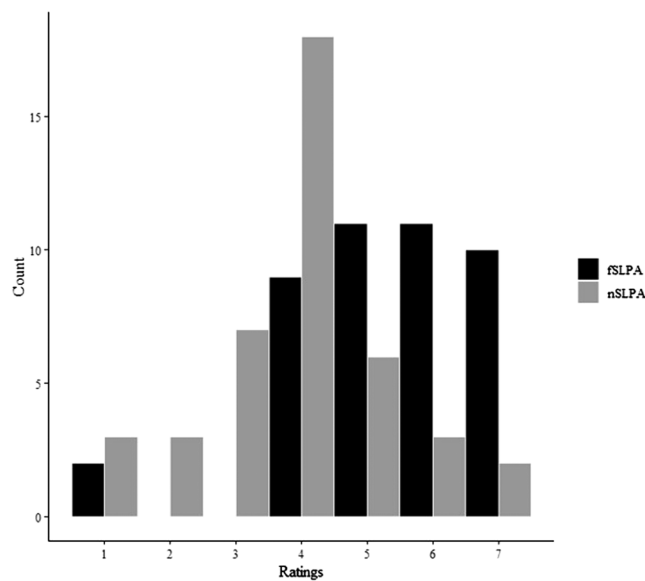


Figure 3. The ratings scale ranged from 1 = *strongly disagree*, 2 = *disagree*, 3 = *slightly disagree*, 4 = *neutral*, 5 = *slightly agree*, 6 = *agree*, and 7 = *strongly agree*. fSLPA = former SLPA; nSLPA = without SLPA.



More fSLPAs highly agreed that prior SLPA experience leads to success in graduate school. Most nSLPAs' responses clustered in the neutral range. See Figure 3 below.

Both groups averaged between “neutral” (4) and “slightly agree” (5) to the “Academically Successful” and “Managing Well” subscales. Both groups averaged between “slightly agree” (5) to “agree” (6) on the “Classes Prepare for Clinic” subscale and the “Undergraduate Preparation” subscale. Both groups averaged around the “agree” (6) mark that their clinical education has been positive.

Qualitative Results

Table 2 presents counts of all concepts and categories. Selected codes are also included that are further discussed in the text. A full table—including operational definitions and a full list of codes—is presented in Appendix C.

Axial coding procedures resulted in categories of codes, including *internal/external stressors*, *internal/external supports*, and *learning and growing*. *Internal stressors* described concepts that were intrinsic to the participant’s mindset or worries and reflected sentiments of an internal locus of control (e.g., concerns with being adequately prepared for real practice), whereas *external stressors* were described as circumstances that happened to the participant that caused stress (e.g., the cost of graduate school or working with a new client population). Similarly, *internal supports* described concepts that described a positive mindset or skillset that was intrinsic to the participant

(e.g., feeling prepared or grateful), and *external supports* were circumstances that occurred to the participant that were perceived as positive (e.g., receiving positive feedback or having the opportunity to work with a new population for which the participant was excited). *Learning and growing* described some of the outcomes of these stressors and supports the participant’s perception of personal growth and change that was occurring (e.g., learning new techniques or growing as a clinician).

External Stressors

Equal numbers of nSLPAs and fSLPAs described external stressors. However, the stressors that the groups reported differed. More fSLPAs identified external stressors of cost (fSLPA $n = 4$, nSLPA $n = 0$), having a limited social life (fSLPA $n = 5$, nSLPA $n = 0$), and needing to balance work and school schedules (fSLPA $n = 5$, nSLPA $n = 1$). While students reported other external stressors, they were observed in both groups.

Both groups reported the external stressor of “new learning experiences,” though the specific experience they described as “new” varied by population. Needing to balance class and clinic and beginning clinic immediately were common codes, whereas fSLPAs more commonly reported stressors of working with adult clients/parents (fSLPA $n = 5$, nSLPA $n = 0$) and needing to complete more comprehensive paperwork and planning (fSLPA $n = 11$, nSLPA $n = 3$).

External Supports

Similar external supports were found between groups. The singular difference observed was the support of a “strong peer network.” fSLPAs were the only group that described having a strong peer network as an external support, though this was reported infrequently (fSLPA $n = 3$, nSLPA $n = 0$).

Internal Stressors

Internal stressors were frequently reported across groups (fSLPAs $n = 29$, nSLPAs $n = 19$). fSLPAs were more likely to be stressed about needing to adjust and return to “school mode” (fSLPA $n = 11$, nSLPA $n = 1$). Some participants described this transition broadly: “*I worked as an SLPA for three years and it was definitely an adjustment to get back into ‘school mode’;*” whereas others were more specific about particular academic skills: “*remembering how I used to study as I had taken a 4 year break.*” A code shared by both groups (fSLPAs $n = 6$, nSLPAs $n = 2$) was the concern that graduate school was not preparing them for real-world practice. When describing the biggest change transitioning to graduate school, one fSLPA described, “*Making the switch from ‘real life’ and ‘practical’ clinical practices in my work-life to ‘ideal’ and ‘unpractical’ clinical practices in graduate clinic.*”

Table 2. Qualitative data.

Concept	Code	n of fSLPA responses (total n = 43)	n of nSLPA responses (total n = 42)
Category: external stressors			
External personal stressors		38	38
		20	14
	<i>Cost</i>	4	0
	<i>Limited social life</i>	5	0
	<i>Needing to balance work & school schedules</i>	5	1
Frustration with the educational system		7	6
New learning experiences		32	30
	Adjusting to balancing class & clinic	8	14
	<i>Experiences with adult clients & parents</i>	5	0
	<i>Paperwork & planning</i>	11	3
Category: external supports			
External learning supports		41	36
		38	35
	Feedback	14	10
	Supervisor mentorship	10	11
External validation		12	13
<i>Peer relationships</i>		3	0
Category: internal stressors			
Adjusting		29	19
		11	4
	<i>Returning to “school mode”</i>	10	1
Challenged		7	7
Concerns with clinical preparation		8	5
	Grad school isn’t real life	6	2
Overwhelmed		14	10
Drawing on previous experience		18	7
	<i>Prior SLPA experience</i>	9	0
	<i>Working with children</i>	5	1
Category: internal supports			
Managing		43	40
Positive feelings		16	17
		39	37
	Doing well	35	36
Category: learning & growing			
Different kind of learning		24	31
Growing professionally		9	15
N/A (haven’t started clinic)		18	21
		3	2

Note. Italics indicate a code considered to be endorsed differently between groups. fSLPA = students with former speech-language pathology assistant (SLPA) experience; nSLPA = students without former SLPA experience; N/A = not applicable.

Spending hours on the planning and administrative components of graduate clinic is not at all feasible in real-life practice, and that was a frustrating adjustment.”

Internal Supports

The groups reported internal supports and noted general feelings of “doing well” or at least “ok” at similar rates. However, the fSLPAs often explicitly identified their prior experiences as an SLPA experiences and working with children as being helpful, such as: “*With the pediatric population, I feel at home and rely on my previously learned skills as an SLPA to be successful*” and “*I find pediatrics (where I have the most experience to be the easiest)*” [sic].

Learning and Growing

The more neutral category of learning and growing was described as a common code (nSLPAs $n = 31$, fSLPAs $n = 24$). Within the category, the most common concept was a “different kind of learning,” which described a feeling

of more in-depth clinical preparation or greater breadth of learning than the participant had previously experienced. For example, descriptions from nSLPAs included, “*the shift from learning facts and background information to applying foundational knowledge and critical thinking*” and “*there’s more material to cover in classes compared to undergrad classes.*” Similar codes were endorsed between groups.

The Relationship Between Stressors and Supports

Stressors and supports were often intertwined and should not be conceptualized by the reader as separate responses. Rather, they were separate dimensions of a cohesive experience. Several of the following examples demonstrate how a stressor presented as a disorienting dilemma, which led to transformational growth. Although the counts within categories differed, individual participants often reported multiple stressors and supports within a single response, describing them as related or interdependent experiences. For instance, participants dually

reported stressors with supports or learning opportunities, such as the following:

- (In describing the most effective part of their clinical education) *Large, diverse caseloads and externships. It was hard to manage both with classes, but they taught me the most.* (fSLPA)
- *There is a lot more independence and in my program they started us off with clinic right away which was stressful and overwhelming but overall beneficial.* (nSLPA)
- (In describing the most effective part of their clinical education) *Having different supervisors. It may seem stressful, but they all have different clinical backgrounds, which is helpful to learn what a certain setting is like.* (nSLPA)

Participants frequently attempted to reconcile their internal stress with external validation or by contrasting it to an internal support.

- *My GPA is higher in grad school than it ever was in undergrad. My stress levels are higher than they ever were in undergrad, too, so that GPA boost comes with a price* (fSLPA)
- *During graduate school, I constantly felt like a failure. But, in my externships I found I knew more than I thought.* (fSLPA)
- *I am actually doing excellent (3.88) even though sometimes it does not feel like I am.* (nSLPA)

However, at other times, they reported that their external validation did not match up with their internal stressors:

- *My supervisors say that I do very well, but I don't feel confident in my own skills* (nSLPA)

There was sometimes a combination of both:

- *I still feel unsure of myself at times, but my supervisors have given me consistently positive feedback and decent clinic grades. I therefore think I have done well even if it doesn't feel like it!* (nSLPA)

Findings and Integration

Because this work is exploratory in nature, many different findings emerged as a result of the qualitative and quantitative results. Although the qualitative and quantitative data have been presented separately, the data are now brought together to identify the most meaningful take-away messages in the convention of Classen et al. (2007), which can be characterized as a

weaving approach (Fetters et al., 2013). Discussion points are organized by findings, which are conclusions synthesized from the integration of both qualitative and quantitative sources. The qualitative and quantitative data that support the findings are described in brief. This is followed by the integration of those two sources, which describes how the data converge or diverge. Of the seven findings, one is considered much more preliminary, though all warrant further examination. As noted in the methods, findings that appear in one group but not the other were also considered of interest and are highlighted below.

Finding 1: fSLPAs Believe Their Clinical Experiences Working With (Mostly Pediatric) Clients Are Helpful in Graduate School

Quantitative. fSLPAs reported higher levels of perceived clinical success when compared to nSLPAs (fSLPAs $Mdn = 5.2$, nSLPAs $Mdn = 4.4$, $p < .01$). fSLPAs generally agreed that fSLPAs were more successful in graduate school than their nSLPA peers (fSLPAs $Mdn = 5$, nSLPAs $Mdn = 4$, $p < .001$).

Qualitative. fSLPAs frequently reported that drawing on their previous clinical experience was beneficial. They also more frequently reported being able to work with children as an internal support and needing to work with adult clients as an external stressor.

Integration. fSLPAs' feelings of clinical success in graduate school may be linked to their prior clinical experiences. Given that comparatively few (28%) fSLPA respondents had worked with adult clients in the past, and the majority had worked with children, fSLPAs' feelings of comfort and stress appear to map onto their prior clinical experience. This analysis is likely to fit with fSLPAs' self-perception, as they believe their prior experience makes them more likely to be successful in graduate school.

Finding 2: Both Groups Report "Doing Well" Despite Numerous Stressors

Quantitative. Both groups reported, on average, between neutral and "slightly agree" to the "Managing Well" (fSLPAs $Mdn = 4.8$, nSLPAs $Mdn = 4.65$) and "Academically Successful" (fSLPAs $Mdn = 4.75$, nSLPAs $Mdn = 4.75$) subscales. Both groups reported between "slightly agree" to "agree" on the "Class Prepares Me for Clinic" subscale (fSLPAs $Mdn = 5.5$, nSLPAs $Mdn = 5$). These quantitative data imply mixed endorsement of feelings related to managing in graduate school and academic or clinical achievement.

Qualitative. Both groups frequently reported the broad concepts of doing well (fSLPA $n = 35$, nSLPA $n = 36$) and feeling challenged (fSLPA $n = 7$, nSLPA $n = 7$). More specific internal and external stressors were frequently endorsed within the data set. Furthermore,

students frequently reported stressors and supports within a single thought.

Integration. The quantitative and qualitative data converge. For any given participant, both the numeric and descriptive data would support a mixture of stressors and supports, positive and negative feelings about their experience. Both data sets support the idea of “doing well” despite graduate school being a time of great stress. Some events were also described as both stressors and supports. For instance, the code of “beginning clinic right away” was a support if the student described enjoyment or excitement, but “starting clinic right away” was the same event when described as a stressor—sometimes for the same participant.

Finding 3: Stressors Differ by Group. Many Stressors Are Specific to the Early Portion of the Program

Quantitative. On the “Managing Well” subscale, a series of questions asked whether students felt they could access sources of resilience, such as having enough time and managing stress. Both groups averaged between “neutral” (4) and “slightly agree” (5) (fSLPAs *Mdn* = 4.8, nSLPAs *Mdn* = 4.65) and were not significantly different ($p > .05$).

Qualitative. Both groups reported the code of doing well (fSLPA $n = 35$, nSLPA $n = 36$) and also reported many external stressors. However, personal stressors, such as cost (fSLPA $n = 4$, nSLPA $n = 0$), limited social life (fSLPA $n = 5$, nSLPA $n = 0$), and having to balance work and school (fSLPA $n = 5$, nSLPA $n = 0$), were reported more commonly by fSLPAs. Similarly, fSLPAs were more likely to describe the internal stressor of “returning to school mode” (fSLPA $n = 10$, nSLPA $n = 1$). These real-world expectations may also be related in part to paperwork and planning, which more fSLPAs ($n = 11$) than nSLPAs ($n = 2$) reported as external stressors. Conversely, nSLPAs more commonly reported the external stressor of beginning clinic right away (fSLPA $n = 1$, nSLPA $n = 4$). Both groups reported feeling challenged and being overwhelmed.

Of note, several of the stressors that students endorsed were timed at the beginning of a program. For instance, moving to a new location, beginning clinic immediately, and experiencing different expectations from their undergraduate programs are all adjustments at the start. For fSLPAs, these early stressors were also related to changed paperwork expectations and returning to “school mode.”

Integration. The quantitative data suggest that although students are “managing,” they may not be managing “well” or comfortably. The qualitative data support this picture, with frequent references to being overwhelmed and descriptions of numerous external and

internal stressors. The qualitative data provide more details about the particular stressors each group faces. fSLPAs may more commonly experience personal external stressors.

Finding 4: All Students Found That Academic Coursework Is Useful for Clinical Experiences

Quantitative. Both groups report between “slightly agree” (5) and “agree” (6), on average, on the “Classes Prepare for Clinic” subscale. Additionally, they average “agree” on the “Clinical Education has been Positive” subscale, indicating that students enjoyed working with their supervisor and grew in clinical skills during the supervised clinical experiences. Lower scores might have implied that students felt unprepared even with supervision.

Qualitative. Both groups report learning and growing professionally (fSLPA $n = 24$, nSLPA $n = 31$) and that graduate school is a different kind of learning (fSLPA $n = 9$, nSLPA $n = 15$). Students also reported that they were applying their academic knowledge clinically (fSLPA $n = 3$, nSLPA $n = 8$).

Integration. The quantitative and qualitative data both support that students find their academic coursework useful for their clinical work.

Finding 5: Both Groups of Students Report Positive Experiences With Clinical Education and Note the Importance of Skilled Clinical Teaching

Quantitative. Both groups report, on average, around the “agree” (6) range on the “Clinical Education has been Positive” subscale (fSLPAs *Mdn* = 6, nSLPAs *Mdn* = 6.125), and the mean scores were the highest of any subscale. This indicates high positive regard for the clinical education experiences, including interactions with their clinical educators, relative to their other experiences in graduate school.

Qualitative. Both groups reported benefits of on-campus and off-campus clinical education experiences, useful feedback, hands-on experiences, and supervisor mentorship. Furthermore, some students stressed the need to promote practical rather than theoretical knowledge, which was often attributed to clinical teaching.

Integration. Regardless of SLPA experience, graduate students appear to feel similarly about how well their clinical education is progressing. They also describe the importance of clinical teaching, including varied learning and feedback opportunities.

Finding 6: fSLPAs May Be More Likely to Feel More Out of Place Than the nSLPAs

Quantitative. fSLPAs reported, on average, a “neutral” agreement that they had a similar graduate school experience to their peers whereas fSLPAs were significantly lower than the nSLPAs on the Similar Peer

Experience subscale (fSLPAs *Mdn* = 5, nSLPAs *Mdn* = 6). Figure 2 depicts low extreme scores for the fSLPAs but not the nSLPAs.

Qualitative. fSLPAs were the only group to report the stressors of a limited social life ($n = 5$) and the only group to report positive peer relations as a support ($n = 3$). These codes were not endorsed by the nSLPA group.

Integration. The qualitative data indicate that students may see peer relationships as important, and both data sets indicate that some fSLPAs may feel separate from or left out of their peer groups.

Preliminary Finding 7: nSLPAs May Have More Financial Ability to Access Graduate School

Quantitative. Within the corpus, only 11.6% of fSLPAs transitioned directly to graduate school, and 37.21% reported practicing as an SLPA for over 2 years before making the transition. nSLPAs reported fewer clinical or related professional experiences, and most (61.9%) transitioned directly to graduate school after their undergraduate programs.

Qualitative. Though preliminary due to the low numbers, fSLPAs were the only group to report the cost of graduate school as a change or stressor ($n = 3$). They also described needing to balance their work schedules more frequently (fSLPA $n = 5$, nSLPA $n = 1$).

Integration. Though not conclusive due to the low numbers, more fSLPAs reported the cost or loss of income involved with attending a graduate program as a stressor. No nSLPAs endorsed that code. In addition, fSLPAs more frequently reported working during graduate school and were more likely to have worked in a different profession as well. Though the evidence is only suggestive, codes related to money were repeatedly observed in the fSLPA responses. For a subset of students, cost was an ongoing concern, and that may be more common for fSLPAs than nSLPAs. Further investigations are needed.

Discussion

Results of this study yielded six primary findings and a seventh preliminary finding. Findings indicated that students experienced high levels of stress, though they generally reported they felt they were doing well. fSLPAs and nSLPAs reported some differences in their stressors, with the primary observation that more fSLPAs reported the stressor of transitioning back into a student mindset. Both groups reported positive experiences with clinical education, but fSLPAs reported more confidence in their clinical skills overall. fSLPAs also reported qualitative differences in their stressors when working with familiar versus unfamiliar populations.

Stress

This study found that fSLPAs and non-SLPAs both experience internal and external stressors in graduate school, though the specific ways they describe those stressors differ. These findings align with similarly nuanced findings in the literature about stress in speech-language pathology (e.g., Beck et al., 2020, 2021; Malandraki, 2022; Rapillard et al., 2019a). This study was not designed to focus on stress; it was composed of several open-ended questions about the student experience at large. Yet descriptions of stressors and supports made up the bulk of responses. These results indicate that stress is top-of-mind for SLP graduate students.

Though stress was an overarching theme across groups, there were differences between the fSLPAs and nSLPAs in the sources of stress and support that they described. Differences in sources of stress implies that two students both talking about “being stressed” may be referencing very different stressors. The same language may not describe the same internal states. A support that helps with one “stressed” student may not address the problem for another. It is important for graduate programs to not assume they are aware of the source of stress for a given student based on another student’s experience. What constitutes a disorienting dilemma for one student may not for another, yet the overwhelming stress responses suggest that students in graduate school face a series of such dilemma.

The timing of the stress also varied, a finding that was consistent with other studies (e.g., Chan et al., 1994). Several of the transitions that students are going through at the beginning of their programs (such as moving or loss of income) are stressful events for anyone. nSLPAs, who mostly came directly from their undergraduate programs, are sensitive to changes in educational expectations and new clinical experiences. However, fSLPAs made more references to changes that indicated they were acclimated to having an income, clinical responsibilities, and perhaps a social life outside of their employment setting. For them, the salient disorienting dilemma is re-orienting to a school lifestyle, in addition to the new learning tasks. The internal and external stressors that fSLPAs reported spoke to a stressful shift of identity from professional to student. They described a change not only in activities but also in mindset. Therefore, programs attempting to provide resources to students to manage stress might do well to consider stressors reported in the fSLPA experience, including assistance with social group integration, shifts in professional identity, and consideration of work schedules. Programs should also not assume that the same events or clinical placements are equally stressful for all students.

While some of this stress may be necessary for the sort of rapid professional growth that is required for a time-limited master’s program, programs and students

should be aware of the growing concerns with student mental health within graduate school and take appropriate steps to facilitate external and internal supports. Programs should also be aware of the degree of stress that students are under (e.g., Evans et al., 2018), even when they state they are doing well. The results of this study indicate that feelings of success, learning, and stress often co-occur and intermingle. Even students who are excelling in their programs may benefit from readily available mental health supports built into the curriculum and schedule. Cardell and Bialocerkowski (2019) describe success from a workshop experience for all students after a practicum experience that focused on professional identity development, self-efficacy, and resilience. Such a program was reported to be easily transferable and could be useful for programs interested in promoting student comfort as they assume a new professional identity in the workplace. Other strategies proposed in the literature include managing maladaptive perfectionism (Beck et al., 2020), practicing contemplative pedagogy (Chapman, 2021), and providing targeted instruction on emotional resilience (Malandraki, 2022).

Though positive peer relations and supportive social networks may promote happiness in graduate school, the data from the qualitative and quantitative measures suggest that peer relationships are a struggle for some of the fSLPA group. It is possible that fSLPAs may feel like they are in a different place in their life than their peers, having worked professionally for several years before returning to graduate school. If fSLPAs feel like their peers are largely different than they are, they may find it difficult to fit in or be more hesitant to develop a trusting relationship. This has been observed in other fields; Fettig and Friesen (2014) studied a program designed for licensed practical nurses to become registered nurses. They found that the nontraditional students in their sample reported seeking out friendships with peers they perceived as similar to themselves, whereas they were mistrustful of those who were not. They also found that students reported that the encouragement from friends was “invaluable” (p. 100) during their time in the program and suggested that faculty ought to strive to create inclusive group work and assignments. Taken with the findings of this study, it may be true that fSLPAs, who are considered nontraditional students because they are returning to school after working, may benefit from purposeful integration with their peers. fSLPAs may wish to seek out programs that are designed to support students with an SLPA background or simply ones with more nontraditional students.

Clinical Education

Reaffirming findings in the work of Rapillard et al. (2019b), the students frequently reported the importance

of clinical education, in addition to didactic or theoretical coursework, as being pivotal in their growth as a clinician. Part of the reason for such positive sentiments could be related to the mentorship that is a part of their clinical education experience. Although graduate students have experience being students, neither group has stepped into a role where they need to make course of treatment decisions for a client. Through clinical education, programs help students begin to develop a professional identity (Cardell & Bialocerkowski, 2019), which “is fostered by the authentic experiences of students in the workplace” (Trede et al., 2012, p. 379). This identity formation is important; perhaps students truly see themselves becoming SLPs once they are working with a clinical mentor, rather than only taking classes.

Although it was expected that students would report generally positive clinical education experiences, the homogeneity between groups was surprising. Given their experiences with supervision, transformative learning theory would posit that fSLPAs should react differently to the supervisory process; such supervision might not present a disorienting dilemma for them as it would for a student without experience in supervised clinical practice. One might expect clinical education to be less of a salient stressor/support for fSLPAs in comparison with nSLPAs. Yet this disparity between groups was not observed in the results. Perhaps fSLPAs’ new experiences with unfamiliar adult populations played heavily into the answers about clinical education, or perhaps clinical education in graduate school provides an appropriately different sort of supervision than of an SLPA clinical practice.

This similarity between groups is particularly interesting in light of the field’s widespread use of Anderson’s continuum model of supervision (Anderson, 1988; McCrea & Brasseur, 2020). This model indicates that as a student gains more experience with an area of clinical practice, they require fewer supports. Anderson’s (1988) model would indicate that fSLPAs might need or benefit from fewer supports, particularly with clients similar to their prior caseloads. Yet, if this was true of the student respondents, it was not clear from the results; both groups of students ascribed substantial importance to the clinical education process in developing into a practicing SLP. It is perhaps possible that fSLPAs have different clinical education needs, but they are being met at the same rate as nSLPAs because clinical educators are proficient in adjusting to the needs of different students. Historically, though, research has found that this is unlikely (McCrea & Brasseur, 2020). It is also possible that, regardless of prior clinical experience, students need similar amounts and types of feedback and teaching when they assume new clinical responsibilities. This would also align with prior findings that students value high degrees of direction regardless of their self-reported needs (Wolford et al.,

2020) and theory that posits minimally guided approaches are not efficacious (Kirschner et al., 2006).

Some differences emerged between the two groups in their clinical education. fSLPAs believed that they were doing better in clinic than nSLPAs did on average. fSLPAs were also more likely to experience working with a new population as a clinical stressor and working with a familiar population as a source of confidence. Nuances in the qualitative data suggest that fSLPA confidence is derived mostly from having work experience in similar areas to their current clinical practice in graduate school. Stressors appear to occur when fSLPAs need to engage in areas of clinical practice with which they are not already familiar. This is consistent with transformational learning theory. Students may experience these stressors with new populations as more of a disorienting dilemma, given their past experience. Shifting the students' clinical practice patterns from one that is appropriate for children to one appropriate for adults may be more disorienting than simply adding technical tools and clinical reasoning skills to their repertoire. This may also explain why the stressors and supports coexist in an almost paradoxical pattern. Transformational learning theory would predict that some of these acute stressors may be disorienting dilemma from which transformation learning arises. A more in-depth back and forth interview protocol might be able to better explore some of these reactions and nuance.

Conclusions

Students and programs alike should consider the impact of past experience when interpreting new clinical experiences on student growth and development. If transformational learning and the transition from student to clinician is to take place, then both groups ought to consider the skills and experiences that the student brings with them when they matriculate into a graduate program. Students are not blank slates; they are building new knowledge upon prior experience, and not all students' experiences are alike. This impacts how they experience graduate school, their sources of stress and resilience, and their overall ability to integrate into their graduate programs.

Implications for Clinical Educators

Based on information gathered in this study, a few implications on instruction for fSLPAs can be postulated. First and foremost, a clinical educator working with an fSLPA should be aware of their experiences with clinical populations and their responsibilities when they were an SLPA. This can help guide the educator in understanding likely areas of student confidence and needs. Additionally, linking information to past student experiences may help the fSLPA learn new information more efficiently.

Clinical educators may also wish to be aware of fSLPAs' perceptions of the "real world" applicability of the paperwork and planning requirements that are common in the graduate system. Some educators may use detailed lesson plans and session notes as more of a way to check student understanding and scaffold students' learning in a concrete way—rather than as a model for "typical" paperwork. However, some students (particularly fSLPAs) appear to view these paperwork requirements as simply unrealistic busywork that would be impossible in the field. It can lead to the impression that clinical educators are out of touch with real-world practices. It may therefore behoove educators to describe the purpose of this paperwork to their students, particularly fSLPAs. Additionally, prior research has indicated SLPAs do not always receive sufficient training in how to document effectively (Ostergren & Aguilar, 2015); it is reasonable to expect that some fSLPAs may have been taught poor documentation practices. In that case, the responses noted in this study may be grappling with the dissonance between what students thought they knew versus what they are now learning as best practices for documentation. Clinical educators may wish to address this dissonance directly and provide a rationale for their expectations.

Finally, there may be a group of professionals at the assistant level who are interested in making a career change but are more limited by cost or location. Supports to assist this population in making this professional transition may benefit the field in the long term. Programs geared toward working professionals, which offer night, weekend, summer-only, or asynchronous options, may support this population.

Implications for fSLPAs

fSLPAs enrolling in graduate school should be aware of and prepare for the change in lifestyle. Much of their personal life may change due to a switch from the professional mindset to the student mindset, in addition to the new school responsibilities and learning experiences. Of note, nSLPAs also report lifestyle changes, particularly ones involving increased time commitments, although they may not notice them as acutely. In their graduate education, fSLPAs should be prepared to encounter somewhat familiar pediatric experiences but also recognize that the breadth of the field is wide, and they will encounter new experiences in graduate school for which they may not feel as comfortable. fSLPAs should also be looking to draw on their experiences but embrace openness in new learning opportunities in graduate school even for populations with whom they have worked before.

Limitations and Future Directions

Demographic information within this study was undersampled, which limits replicability. More work

needs to be done to determine the different demographic makeup of these two groups. This limitation is substantial and conveys an important future direction—the understanding of the fSLPA experience in graduate programs ought to take into account racial, ethnic, and linguistic positionality. This is particularly noteworthy because the demographics of SLPAs may be different from the demographics of SLPs. While no known ASHA professional survey exists with demographic information for SLPAs, Ostergren and Aguilar (2012) indicated that approximately 40% of SLPAs in California are bilingual. Recruitment sites such as Zippia (n.d.) suggest that approximately 45% of SLPAs identify as an ethnicity other than “White,” whereas the ASHA (2021) Annual Demographic & Employment Data survey reported that only 8.7% of ASHA members and affiliates identify as racial minorities. Given the known importance of increasing diversity in the field, one avenue to achieving this goal could be the recruitment of SLPAs into master’s programs. A more intersectional understanding of fSLPAs’ experiences in graduate school might help programs support these students.

A second major limitation of this study is the reliance on perceptual scales, though the qualitative data made some attempts to triangulate these findings. For instance, although fSLPAs feel more confident treating pediatric clients, it is possible that fSLPAs are not actually more successful in clinical practice with this population. This study only evaluated the students’ perception. This warrants more investigation. Future studies should include links to clinical educator perceptions of fSLPA performance and concrete measures of clinical skill. A third limitation is the low national sample size.

The results of this study might also be notable for speech-language pathology clinical doctorate (SLPD) programs. The students matriculating into an SLPD program are also often working professionals returning to school for further education. Similar to fSLPAs, SLPD students might have a similar more difficult first term, need to adjust back into school mode, and draw on their own diverse experiences in different ways that would change their subjective experience within the program. This is an interesting avenue for future research, as it was not the population evaluated in this study.

Data Availability Statement

A limited de-identified data set is available from the authors upon reasonable request.

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Appendix A (p. 1 of 4)

Demographics Section

How many months have you been enrolled in SLP graduate school? (choose best answer)

- a. 1–6
- b. 7–12
- c. 13–18
- d. More than 18

What was your undergraduate major?

What was your undergraduate GPA? (choose best answer)

- a. < 3.0
- b. 3.0 to 3.3
- c. 3.4 to 3.7
- d. 3.8+

What is your current graduate GPA? (choose best answer)

- a. 2.0 to 2.5
- b. 2.6 to 3.0
- c. 3.1 to 3.5
- d. 3.6 to 4.0

Appendix A (p. 2 of 4)

Demographics Section

What was your quantitative GRE score?

What was your verbal reasoning GRE score?

What was your analytical writing GRE score?

Have you ever worked as an SLPA in any state? (choose best answer)

- a. Yes
- b. No

Have you been licensed as an SLPA in any state?

- a. Yes
- b. No

How long were you an SLPA BEFORE entering graduate school?

- a. < 6 months
- b. 6–12 months
- c. 13–24 months
- d. 24+ months
- e. I have not been an SLPA

As an SLPA, what population did you work with?

- a. Early Intervention (B-3)
- b. Pediatrics (3+)
- c. Adults (18+ years)
- d. I have not worked as an SLPA

Which of the following do you have experience with as an SLPA? (select one or multiple)

- a. Articulation/Speech
- b. Fluency
- c. Voice/Resonance
- d. Language
- e. Hearing
- f. Swallowing
- g. Cognition
- h. Social Communication
- i. Communication Modalities/AAC
- j. I have not worked as an SLPA

What types of clinical experiences did you have before entering into graduate school? (choose one or multiple)

- a. Observation only
- b. Clinical experience (undergraduate clinic, SLPA, etc.)
- c. Habilitation, ABA Therapy, or other related profession
- d. Other clinical experience
- e. I have had no prior clinical experiences

Appendix A (p. 3 of 4)

Demographics Section

What, if any, other work or clinical experience did you have that is relevant to your future career as an SLP?

Did you begin graduate school directly (within 6 months) after completion of your undergraduate degree?

- a. Yes
- b. No

If not, how long was it between undergrad and graduate school?

- a. 6–9 months
- b. 9–12 months
- c. 1–5 years
- d. More than 5 years

Are you providing services to clients as a graduate student?

- a. Yes
- b. No

How many months have you been providing supervised speech therapy services in graduate school?

- a. 1–6
- b. 7–12
- c. 13–18
- d. More than 18

What clinical populations have you provided services to as a graduate student clinician? (select one or multiple)

- a. Early intervention (birth–3 years)
- b. Pediatrics (3–18 years)
- c. Adults (18+ years)

Which of the following do you have experience with as a graduate student clinician? (select one or multiple)

- a. Articulation/Speech
- b. Fluency
- c. Voice/Resonance
- d. Language
- e. Hearing
- f. Swallowing
- g. Cognition
- h. Social Communication
- i. Communication Modalities/AAC

Appendix A (p. 4 of 4)

Demographics Section

Quantitative Questions

The following statements describe some ways a person may feel about graduate school.

To what extent to you agree or disagree with each of the following statements? Please select the choice that matches your opinion most closely.

Strongly Disagree – Disagree – Slightly Disagree – Neither Agree nor Disagree – Slightly Agree – Agree – Strongly Agree

1. My undergraduate coursework prepared me well for graduate school
2. My graduate coursework has prepared me for clients in the clinic
3. My graduate coursework did not prepare me for unexpected situations in the clinic
4. I enjoy the classes that I am taking
5. I find it difficult to solve clinical problems during my clinical assignments/client interactions ***
6. I have a strong work ethic that has served me well in graduate school
7. Academic coursework prepared me well for the clinic
8. Adjusting to graduate school life was difficult
9. I think my experience is pretty similar to other students in my program
10. I have good time management skills
11. Class is pretty easy for me
12. Graduate school clinic is stressful
13. I feel prepared for classes in graduate school
14. I find the topics in my courses to be easy
15. I feel prepared for clinical experiences in graduate school
16. Graduate school classes are stressful
17. I am able to manage stress in graduate school
18. I have enough time to spend with my family
19. Throughout my training, graduate school is becoming easier
20. I feel that I have enough time to complete all assignments during graduate school
21. I feel that I have made growth in my clinical skills after coming to graduate school
22. I do not feel confident in my clinical skills ***
23. I'm comfortable with clinical problem solving
24. I feel more confident providing therapy than writing appropriate therapy goals
25. I know the best interventions to use for my clients
26. My supervisor is helpful and does their job well
27. I like my supervisor
28. Courses are easier for me than clinical skills
29. My supervisors in graduate school helped me understand clinical practice
30. I find it difficult to choose appropriate assessments for potential clients ***
31. I feel that students with prior SLPA experience are more successful in graduate school

Qualitative Subsection

Please answer the following questions with complete sentences:

- 1) What was the biggest change coming to graduate school?
 - 2) How do you feel like you're doing in graduate school classes?
 - 3) How do you feel you're doing in graduate school clinic?
 - 4) What was the most effective part of your clinical education?
-

Appendix B

Demographics

Variable	fSLPA (%)	nSLPA (%)
<i>N</i>	43 (100)	42 (100)
UG SLP major	31 (72.09)	33 (78.57)
UG different major	12 (27.91)	9 (21.43)
Previous clinical experience		
Observation only	13 (30.23)	31 (73.81)
Clinical experience	38 (88.37)	10 (23.81)
Related professional experience (e.g., habilitation)	10 (23.26)	4 (9.52)
Other clinical experience	5 (11.63)	6 (14.29)
No prior experience	0 (0)	2 (4.76)
Undergraduate gap time		
Did you transition from UG directly to GS?	5 (11.63)	26 (61.9)
The time between undergraduate work and graduate work was. . .		
6–9 mos	1 (2.33)	8 (19.05)
9–12 mos	4 (9.3)	5 (11.9)
1–5 yrs	29 (67.44)	10 (23.81)
5+ yrs	4 (9.3)	0 (0)
Clinical services in graduate school		
Number of respondents providing clinical services in GS	40 (93.02)	40 (95.24)
Length of time providing clinical services in GS (mos)		
1 to 6	15 (34.88)	19 (45.24)
7 to 12	13 (30.23)	8 (19.05)
13 to 18	6 (13.95)	4 (9.52)
19+	9 (20.93)	11 (26.19)
Clinical experience with a given population in GS		
Birth to 3	23 (53.49)	18 (42.86)
Pediatrics (3–18)	40 (93.02)	36 (85.71)
Adults	31 (72.09)	31 (73.81)
Clinical experience with a given Big-9 in GS		
Speech	39 (90.7)	36 (85.71)
Fluency	24 (55.81)	22 (52.38)
Voice	26 (60.47)	20 (47.62)
Language	43 (100)	39 (92.86)
Hearing	19 (44.19)	15 (35.71)
Swallowing	17 (39.53)	17 (40.48)
Cognition	33 (76.74)	24 (57.14)
Social	36 (83.72)	32 (76.19)
AAC	29 (67.44)	23 (54.76)
SLPA-specific information		
Holds an SLPA license	35 (81.4)	
Length of time as an SLPA		
SLPA for < 6 mos	2 (4.65)	
SLPA for 6–12 mos	6 (13.95)	
SLPA for 13–24 mos	14 (32.56)	
SLPA for 2 yrs+	16 (37.21)	
Clinical experience with a given population as an SLPA		
Birth to 3 (0–3)	22 (51.16)	
School-aged pediatrics (3–18)	34 (79.07)	
Adults	12 (27.91)	
Clinical experience with a given disorder area as an SLPA		
Speech	37 (86.05)	
Fluency	23 (53.49)	
Voice	6 (13.95)	
Language	38 (88.37)	
Hearing	10 (23.26)	
Swallowing	1 (2.33)	
Cognition	15 (34.88)	
Social communication	35 (81.4)	
AAC	31 (72.09)	

Note. fSLPA = students with former SLPA experience; nSLPA = students without former SLPA experience; mos = months; yrs = years; GS = graduate school; SLPA = speech-language pathology assistant; AAC = augmentative and alternative communication; UG = undergraduate.

Appendix C (p. 1 of 5)

Detailed Results

Subscale or question description	α	Questions within subscale
Clinically successful	.76	Q5. I find it difficult to solve clinical problems during my clinical assignments/client interactions [reversed] Q22. I do not feel confident in my clinical skills [reversed] Q23. I'm comfortable with clinical problem solving Q25. I know the best interventions to use for my clients Q30. I find it difficult to choose appropriate assessments for potential clients [reversed]
Academically successful	.70	Q11. Class is pretty easy for me [Courses/Easy Courses] Q13. I feel prepared for classes in graduate school Q14. I find the topics in my courses to be easy Q28. Courses are easier for me than clinical skills
Clinical education has been positive	.80	Q21. I feel that I have made growth in my clinical skills after coming to graduate school Q26. My supervisor is helpful and does their job well Q27. I like my supervisor Q29. My supervisors in graduate school helped me understand clinical practice
Managing well	.83	Q4. I enjoy the classes that I am taking Q6. I have a strong work ethic that has served me well in graduate school Q8. Adjusting to graduate school life was difficult Q10. I have good time management skills Q12. Graduate school clinic is stressful [reversed] Q16. Graduate school classes are stressful [reversed] Q17. I am able to manage stress in graduate school Q18. I have enough time to spend with my family Q19. Throughout my training, graduate school is becoming easier Q20. I feel that I have enough time to complete all assignments during graduate school
Classes prepare for clinic	.72	Q2. My graduate coursework has prepared me for clients in the clinic Q3. My graduate coursework did not prepare me for unexpected situations in the clinic Q7. Academic coursework prepared me well for the clinic Q15. I feel prepared for clinical experiences in graduate school
Undergraduate preparation	NA	Q1. My undergraduate coursework prepared me well for graduate school
Similar peer experience	NA	Q9. I think my experience is pretty similar to other students in my program
More confident in therapy than goal-writing	NA	Q24. I feel more confident providing therapy than writing appropriate therapy goals
Prior SLPA experience leads to success	NA	Q31. I feel that students with prior SLPA experience are more successful in graduate school

Note. SLPA = speech-language pathology assistant; N/A = not applicable.

Appendix C (p. 2 of 5)

Detailed Results

Concept	Code	Definition	fSLPA	nSLPA
Category: external stressors		External circumstances outside of an individual's control that were described as stressful	38	38
External personal stressors		Stressors that impacted their personal day-to-day life rather than their academic progress	20	14
	Cost	Paying for graduate school / difficulty with finances in general	4	0
	Difficulty fitting in	Difficulty with peers in relations or dynamics	2	1
	Family dynamics	Leaving family, not spending as much time with family, not having family support	3	3
	Limited social life	Limited time with friends due to school work	5	0
	Moving	References moving to graduate school from location or school	3	7
	Needing to balance work & school schedules	Needing to juggle work and school from a time or focus perspective	5	1
	Time commitment	Large amount of time devoted to grad school without mention of needing to manage it	7	5
Frustration with the educational system		Stressors with program setup that were seen as beyond the student control that negatively impacted their learning	7	6
	Learning contingent on supervisor – faculty	Descriptions of the supervisor as the one who makes or breaks the rotation/experience	5	4
	Student assessments – grades not being sufficient	Mismatch between grades and reported learning	1	0
	Theoretical learning insufficient	Theoretical learning is less useful and/or preference for clinicians teaching clinical skills	1	2
New learning experiences		Stressors from the academic program that were at least somewhat new and inherently challenging	32	30
	Adjusting to balancing class clinic	Refers to the stress of needing to address both class & clinical rotations together. Sometimes there's a sense of "school" and "clinic" as if they're two separate entities splitting their attention and not an integrated whole.	8	14
	Beginning clinic immediately	Needing to start clinic immediately/sudden/often "rushed" context	1	4
	Change in coursework	That there is (new/more) coursework	6	9
	Clinic is difficult	Clinic has been hard	2	3
	Difficult first term	Specifically that the first term was difficult—often followed by am doing better now	5	3
	Expectations	Change in expectations / role set by others (typically generically higher expectations rather than focused item)	3	7
	Experiences with adult clients & parents	Mentions needing to learn to work with adult clients or parents	5	0
	New to clinical practice	Refers to working with real clients as a big change. May reference having not done something like that before	4	5
	Paperwork & planning	Challenges with areas such as paperwork, lesson plans, etc.	11	3

(table continues)

Appendix C (p. 3 of 5)

Detailed Results

Concept	Code	Definition	fSLPA	nSLPA
Unique situations		Stressors that seemed unique to a particular situation or period in time rather than a more general experience. Often cut between academics & personal life	11	6
	COVID impact	References something changing due to COVID explicitly or obvious result (e.g., going online midterm)	8	4
	Needing to repeat a term	Second time completing clinic	1	1
	Negative experiences with faculty	Negative experiences with a faculty member, sometimes intensively negative, impacting their perception of their program	3	2
Category: external supports				
External learning supports		External circumstances outside of an individual's control that were described as beneficial to their learning or experience	41	36
		External supports that helped a student learn	38	35
	Collaboration	Working with and learning from peers, supervisors, and professors	2	1
	Exposure to diverse clients	Working with a variety of different clients as a support of their learning	3	1
	Externships & off-campus experience	Hands-on experience at external sites as beneficial	9	6
	Feedback	Receiving feedback in general—primarily used the word “feedback”	14	10
	Hands-on experience	Hands-on experience as a positive for learning (includes simulations)	8	10
	Internal clinic experience	Hands-on experience at internal sites (e.g., a university clinic / on campus)	4	5
	Journal Club (supervision technique)	Describes a journal club as a clinical teaching technique that was useful	1	0
	Learning relevance	If information or learning is relevant, it's more useful—mostly related to coursework	2	2
	Medically based	Medically based SLP program	2	0
	Observation	Observation (probably pre clinic)	0	2
	Relationships with professors	References to developing positive relationships with faculty	4	3
	Reviewing video sessions	Watching taped sessions the students conducted with clients as a positive for learning	0	1
	Show not tell	Being shown techniques rather than told about them	3	0
	Starting clinic immediately	Starting clinic immediately as a beneficial practice	0	2
	Supervisor mentorship	References positive supervision mentorship / relationships	10	11
	Trial and error	Being allowed to try new techniques and learn from errors	2	4
	Variety as a positive	References variety of supervisors or other experiences as a positive	1	1
	Webinars	Lists webinars as positive learning experiences	0	1
External validation		External indicators that validate student success (e.g., grades or noting improvement in clients)	12	13
	Client improvement	Seeing clients improve throughout treatment	1	1
	Getting good grades	References getting good grades	2	2
	My grade	Specifically references their GPA or grade (e.g., A's / B's, or a specific GPA number)	8	9
	Positive feedback	Positive feedback to students either generic or being selected for honors/awards	6	6
Peer relationships		Peers as a source of support	3	0

(table continues)

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Detailed Results

Concept	Code	Definition	fSLPA	nSLPA
Category: internal stressors				
Adjusting		Intrinsic stressors that were a part of an individual's cognitive emotional state or mindset	29	19
	I've never done this before	Internal stress caused by the need to adjust to the graduate program	11	4
Challenged	Returning to "school mode"	Clinical experiences outside the comfort zone—often takes the form of "I've done X, but I've never done Y"	2	3
		Adjusting ones mindset back into the school setting	10	1
		Feel like coursework has been difficult and/or more difficult	7	7
	Concerns with clinical preparation	Concerns that the graduate school learning may not transfer to future employment settings based on their past experiences or concerns about retaining the information	8	5
Overwhelmed	Grad school isn't real life	Feelings that grad school is artificial or doesn't match up with what they feel actually matter.	6	2
	Information retaining	Difficult time retaining information, worries about retaining information to apply in the field	2	3
		Sense of being overwhelmed or general negative/anxious cognitive-emotional states	14	10
	Anxiety	Mentions anxiety, anxious, or worry	3	1
	Deeply negative emotions	Deeply negative emotional experiences that were beyond surface level reports of stress and anxiety	1	1
	Self-doubt	Feelings of lack of confidence or self-doubt	4	6
	Stress	Perceptions of stress	8	5
Category: internal supports				
Drawing on previous experience		Intrinsic cognitive emotional state, mindset, or acquired skills that helped an individual grow or cope	43	40
	Easier or better than in undergrad	Describes a previous experience that helps them during graduate school.	18	7
	Outperforming peers	Expressed feeling more successful than they did in undergrad	6	4
	Prepared	Noted feeling they were excelling more than others in the program	1	3
	Prior SLPA experience	Felt prepared to begin grad school	1	0
		Experience as an SLPA or other SLP experience made them feel more confident	9	0
		Undergrad clinic	Describes an undergraduate clinical experience	1
Managing	Working with children	Explicitly mentions confidence, familiarity, aptitude working with child clients	5	1
		Describes managing or working through graduate school. May include feelings of just making it but not thriving.	16	17
	Managing time	Need to manage or organize their time	8	11
Positive feelings	Ok	Responds with the equivalent of "doing ok" to inquiries into how their coursework or clinical practice is going	11	7
	Work and effort	Performance in clinic depends on work and effort put in	0	2
		Reflects positive feelings of graduate school such as enjoying the experience or having a rewarding experience. Overall impressions are much more doing "well" than just "ok" or just managing	39	37
	Confident	Level of confidence in skills	9	6
	Enjoyment	Expressed enjoying grad school/class/clinic, possible excitement	6	2
	Grateful	Thankful to be in school	2	0
	Interesting knowledge	Knowledge that interests me more and positive impact thereof	3	0
Rewarding	Finding the work they're doing fulfilling	3	2	
Treatment comes naturally	Clinical work comes easily	2	0	
Doing well	References to doing well / performing well in the program	35	36	

(table continues)

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Detailed Results

Concept	Code	Definition	fSLPA	nSLPA
Category: learning & growing		Describes outcomes of these stressors and supports in more neutral terms	24	31
Different kind of learning		Describes new learning tasks (e.g., accessing journal articles) or needing to reconceptualize the learning priorities within graduate school	9	15
	Accessing evidence-based practice	Describes needing to access research evidence in neutral terms	1	1
	Breadth of learning topics or areas external	Amount of learning of various areas that is required –not “depth” of learning	1	2
	Flexibility	Learning how to be flexible when working with patients	2	4
	Learning independently	Taking ownership/initiative of their own learning	2	4
	Thorough in-depth learning	Differences in learning expectations / internal ownership of learning / depth of learning	3	6
Growing professionally		Describes some sort of professional growth or degree to which learning is happening	18	21
	Applying academic knowledge (clinically)	Applying coursework to clinical work	3	8
	Better over time	References improvement over time (generic)	7	6
	Deep dive into clinical techniques	Talks about depths of clinical teaching/intervention knowledge	2	2
	Developing skills in assessment	Describes administering assessments	3	1
	Growing clinically	Learning skills to be a successful clinician	4	5
	Learning a lot	Gaining useful information from classes	8	10
	Learning how to assess	Learning how to assess/do evaluations	1	3
Not applicable (haven't started clinic)		No clinic experience yet (in response to most effective part of clinical teaching)	3	2

Note. The two rightmost columns represent counts of participants within the group that endorsed the given code, concept, or category. fSLPA = students with former SLPA experience; nSLPA = students without former SLPA experience; SLP = speech-language pathologist; SLPA = speech-language pathology assistant.