

Stress, Confidence, and Resilience of Graduate Students in Communication Sciences and Disorders

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Abstract: Graduate students in Communication Sciences and Disorders (CSD) programs face significant mental health challenges that impact their academic performance and overall well-being (Allen et al., 2021; Bogardus et al., 2022; Bullock et al., 2017; Coffman et al., 2019; Delaney et al., 2015; Ellis & Briley, 2018; Malandraki, 2022). This literature review examines the prevalence and impact of stress, burnout, and resilience among these students. Recent research suggests that high levels of stress experienced by CSD graduate students are due to rigorous academic and clinical demands. Elevated stress is associated with burnout, characterized by emotional exhaustion, cynicism, and inefficacy, which adversely affect both academic and professional performance. Findings suggest that poor sleep quality exacerbates burnout, while improving sleep quality may help mitigate its effects. Resilience, defined as the ability to adapt and thrive despite adversity, has emerged as a crucial coping mechanism. This review underscores the need for targeted resilience programs to support CSD graduate students. Such programs should focus on building reflective ability, emotional intelligence, social confidence, and social support through practical strategies like wellness check-ins, peer counseling, and resilience training. To enhance the reliability of research in this area, future studies should include a diverse sample of students across the country and utilize larger, randomized trials to ensure broader applicability and reliability of findings.

Keywords: *graduate students, resilience, burnout, stress, communication sciences and disorders*

1. Introduction

Mental health and well-being are critical factors that influence graduate students' (GS) academic performance, professional conduct, and overall quality of life. Recent research highlights the prevalence of burnout among these students (Malandraki, 2022). Burnout is defined as emotional and physical exhaustion resulting from exposure to stressors, compounded by inadequate coping mechanisms (Bullock et al., 2017). Burnout not only impedes students' psychological abilities but also detrimentally impacts their academic performance. Additionally, the concept of resilience, characterized by the capacity to adapt and thrive despite adversity, has gained prominence as a vital attribute for managing stress and enhancing professional performance (Coffman et al., 2019; Delaney et al., 2015; Malandraki, 2022). There are a multitude of studies that underscore the importance of resilience programs in clinical education. They propose that fostering resilience through targeted strategies (e.g., faculty mentoring, therapy, stress management seminars, periodic mental health assessments, self-care activities, program related resilience support groups, pass/fail

grading systems, and adjusted course loads) can mitigate the negative effects of stress and burnout (Bogardus et al., 2022; Malandraki, 2022; Findley, 2024; Lieberman et al., 2018; Beck et al., 2020; Ellis & Briley, 2018; Delaney et al., 2015). This literature review aims to address the important themes of stress, confidence, and resilience of GS in CSD programs and how to support and improve these variables for GS.

2. Student Stress

Stress is a common experience, particularly in academic environments where students face numerous pressures. Beck et al. (2020) define stress as a disruption of the body's homeostasis, triggered by various external and internal factors. College students are especially vulnerable due to the transitional nature of college life, the pressure to maintain high academic standards, and financial burdens (Lieberman et al., 2018). Recent studies have highlighted that students in CSD programs face unique stressors that had been underexplored until recently, making it difficult for them to anticipate and cope with these challenges (Lieberman et al., 2018).

GS in speech-language pathology (SLP) programs encounter even greater academic and clinical demands than their undergraduate counterparts. These demands often include heavy workloads, rigorous courses, and the start of clinical practice (Lieberman et al., 2018). SLP GS face additional stressors such as test-taking fears, practicum requirements, and financial pressures. The clinical scope and range for students in SLP practicums are continually expanding, requiring a strong understanding and application of research methods alongside challenging coursework, exams, and externship placements (Lieberman et al., 2018; ASHA, 2016). The intense stress associated with these demands has been linked to higher dropout rates among students, prompting universities to adopt supportive measures, such as providing greater social, administrative, and financial resources, to enhance retention (Lieberman et al., 2018).

Elevated stress levels are a major concern in clinical training programs, as they are associated with poor performance in tasks requiring high levels of focus, memory, and decision-making (Ellis & Briley, 2018). First-year GS primarily reported stress due to adjusting to greater academic and clinical responsibilities, with 80% citing these as significant issues (Ellis & Briley, 2018). Time management and financial obligations were also significant stressors. For second-year students, 50% experienced stress from academic and clinical duties, as well as from planning for externships, graduation, and managing finances and personal health (Ellis & Briley, 2018). Stress levels increased for 93% of first-year students and 87% of second-year students since enrolling (Ellis & Briley, 2018).

Mental health issues, such as anxiety, depression, perfectionism, and suicidal ideation, have become increasingly prevalent and severe among GS, particularly those in health science fields (Bogardus et al., 2022; Coffman et al., 2019; Delaney et al., 2015; Findley, 2024; Malandraki, 2022). This increase is largely due to numerous stressors such as the cost of education, clinical practicum demands, exams, rigorous coursework, licensure exams, and the transition to adulthood (Bogardus et al., 2022). Researchers have expressed concern that mental illness and perfectionism could negatively impact health science students—such as SLPs, physician assistants, occupational therapists, and physical therapists—as the cognitive and behavioral consequences of these conditions may impair learning, coping abilities, and the completion of both didactic and clinical

portions of their programs (Bogardus et al., 2022). While some evidence suggests that graduate programs may exacerbate or create new mental health issues, concrete evidence remains lacking. The study recommended that the structure of graduate programs could significantly impact students' mental health and well-being. Previous research indicated that students often do not reach out when stressed, viewing it as "an admission of failure" (Beck et al., 2020). Therefore, it is up to instructors and faculty to create a safe space for students, guide them through the program, and offer resources or integrate mental health supports into the curriculum.

3. Burnout

Burnout is a significant risk in healthcare professions, particularly among GS (Coffman et al., 2019). It is defined as emotional and physical exhaustion resulting from exposure to stressors, compounded by inadequate coping mechanisms (Bullock et al., 2017). The high demands for academic and clinical performance before and during graduate training place students at an elevated risk for anxiety and depression (Bogardus et al., 2022; Delaney et al., 2015; Malandraki, 2022). CSD students, in particular, report substantial stress from various life factors affecting their academics, including general stress, poor sleep quality, limited access to nutrition, decreased physical activity, lack of self-care, and worsening mental health conditions (Allen et al., 2021; Beck et al., 2020; Coffman et al., 2019; Findley, 2024; Lieberman et al., 2018).

Coffman et al. (2019) found that CSD students experience stress in multiple areas, such as personal life, food insecurity, and financial concerns. Despite reporting effective stress management compared to their general college peers, these students also reported not feeling rested most days and experiencing more sleep deprivation than the general student population. Allen et al. (2021) suggested that sleep could play a crucial role in the link between stress and burnout, although these relationships were not well explored among GS until recently.

Allen et al. (2021) classified burnout into three dimensions: exhaustion, cynicism, and inefficacy. Exhaustion refers to fatigue due to emotional resource depletion. Cynicism refers to a negative or indifferent attitude towards one's work. Inefficacy relates to feelings of incompetence and a lack of accomplishment. Allen et al. (2019) conducted a survey examining the impact of sleep on burnout among graduate students, finding a strong association between increased stress and burnout, especially in terms of exhaustion, followed by cynicism and inefficacy. The study also suggested that burnout might be reversible, with sleep quality acting as a potential buffer. Specifically, poor sleep quality was linked to higher levels of burnout, while sleep duration showed a less consistent relationship. The findings indicated that improving sleep quality, rather than duration, might be more effective in reducing burnout.

Bullock et al. (2017) investigated the prevalence of burnout and its effects on the psychological, professional, and academic performance of graduate healthcare students. Reviewing 127 articles across five domains—etiology, professionalism, mental health, empathy, and academic performance—the authors found that burnout was prevalent among health science GS and had significant negative impacts. The study revealed that lack of support from school, family, or friends was a major contributor to stress and burnout, which often led to unprofessional behavior. Furthermore, the mental health aspect of the study highlighted a strong correlation between

burnout and issues like depersonalization and emotional exhaustion, particularly in schools with grading scales, suggesting that pass/fail grading systems might better support students' mental health.

4. Resilience

Research conducted by Malandraki (2022) discussed the profound impact that graduate school has on the mental well-being of students, particularly those in CSD programs. While research on resilience has existed for years, it has only recently become a focus for graduate programs. According to the author, emotional resilience has been highlighted since 2020, but its findings have seen limited application in curricula (Malandraki, 2022). Developing emotional resilience is crucial as it can be a strong coping mechanism for burnout and compassion fatigue. Symptoms of compassion fatigue include experiencing a sense of hopelessness, mood swings, irritability, anxiety, substance abuse, anger/resentment, poor concentration, digestive issues, sleep disturbances, headaches, increased muscle tension, and fatigue. Resilience requires active engagement in self-care strategies, which should be promoted by faculty or mentors throughout the program to reduce professional challenges and minimize clinical errors, apathy, anxiety, and depression (Coffman et al., 2019; Delaney et al., 2015; Findley, 2024; Malandraki, 2022). Malandraki (2022) details how professional challenges, burnout, and compassion fatigue can extend from graduate school into professional work, emphasizing the need for proper coping mechanisms to maintain professional wellbeing.

Malandraki (2022) highlighted the need for more detailed research on this topic but notes that the current data shows a clear demand for the implementation of mental health practices by clinical educators (CEs) and other influential staff. At this time these issues are not addressed in the Council on Academic Accreditation standards or in the literature on clinical supervisor training in speech-language pathology (ASHA 2013; ASHA, 2020; Malandraki, 2022). Emotional resilience is essential for health science professionals who often absorb patient stress and trauma, with high resilience levels associated with lower burnout and compassion fatigue. Positive impacts of addressing emotional resilience have been noted at both graduate and undergraduate levels in various fields of health science, including nursing and social work.

Evidence suggests that four competencies—reflective ability, emotional intelligence, social confidence, and social support—should be collectively and intentionally addressed to improve emotional resilience in SLP graduate programs. This can be achieved through weekly wellness check-ins, regular wellness activities, clinical wellness journal reflections, peer counseling sessions, and clinician panels sharing experiences about difficult cases. Implementing these practices can enhance the mental well-being and success of SLP students. While further research is needed to measure the overall impact of these interventions, the current data is the most supportive available on the topic at this time.

Findley (2024) investigated the associations between self-care practices and clinical self-efficacy in SLP GS students. Using a non-experimental design, the author employed descriptive and correlational methods to analyze data from a survey completed by 68 GS. The survey questions measured engagement in various self-care practices (e.g., mindful relaxation, physical care, self-

compassion and purpose, supportive relationships, supportive structure, and mindful awareness) and clinical self-efficacy in different areas (e.g., pediatric, adult, assessments, treatment, and overall efficacy; Findley, 2024). The data showed that students engaged more in supportive relationships and structures compared to mindful relaxation, physical care, self-compassion, and mindful awareness. They rarely engaged in relaxation techniques like yoga or creative activities, with the highest engagement being spending time with supportive individuals who respected their choices and listened when they were upset. These findings suggest varying levels of participation in different self-care domains. The study found small positive correlations between supportive structures, supportive relationships, mindful awareness, and clinical self-efficacy. Supportive relationships and mindful awareness were highlighted for reducing student stress and enhancing clinical self-efficacy through mindfulness interventions, boosting students' confidence in clinical settings.

Delaney et al. (2015) highlighted resilience as a valuable coping strategy for learning and professional practice. Clinical education, a crucial component of health professional training, was also a time of peak stress and burnout for students. Their coping and perception of stress significantly impacted their clinical and professional behavior, raising concerns for educators. Students with negative coping strategies required more teaching time and resources (Delaney et al., 2015). Stress affected them physiologically (e.g., headaches), psychologically (e.g., anxiety), and behaviorally (e.g., difficulty concentrating). Resilience, defined as an adaptive, stress-resistant quality, allowed students to thrive despite adversity (Delaney et al., 2015). “Academic buoyancy” described resilience in the classroom, focusing on handling academic setbacks. The authors proposed that everyday resilience could enhance students’ capacities to handle academic challenges and improve overall well-being for current learning, future work performance, and life. This study reported on the effectiveness of implementing and evaluating a resilience program. The four goals were: (1) raising awareness of personal stressors and responses; (2) increasing self-efficacy by recognizing personal strengths and past successes; (3) teaching resilience-based strategies (cognitive restructuring, mindfulness, controlled breathing) to reduce anxiety and negative responses to clinical stressors; and (4) evaluating the impact of these strategies on students’ self-perceptions of their learning experience.

Drawing from previous research, the authors used a combination of approaches, including the five dimensions of resilience (confidence/self-efficacy, capacity to plan, sense of control over the learning environment and strategies, composure and lower anxiety levels, and commitment to study), cognitive behavior therapy (CBT), strength-based positive psychology, and performance psychology. These components were intended not to remove stressors but to equip students with coping skills to navigate personal, professional, and academic challenges, thereby enhancing their quality of life. The authors gathered six final-year physiotherapy undergraduate students from two universities who attended 90-minute weekly lectures for eight weeks delivered by appropriate practitioners. These lectures, timed to coincide with the start of clinical placements, were structured as group meetings and were audio recorded and transcribed. Between sessions 2–4, students returned to their clinics to trial specific resilience strategies and record the impact by responding to three questions: What happened during your clinical placement? What was stressful, and what positive coping strategy did you try? What did you think and feel? The authors aimed for participants to gain knowledge about resilience through concrete experiences, including trialing, evaluating, and reflecting on their actions. They posited that students’ perceptions and beliefs about the learning environment could influence their self-efficacy. By participating in

action research, students were able to monitor their beliefs, practice strategies, and positively change unhelpful responses.

The findings indicated that the program helped students address clinical learning stressors by understanding their triggers and responses and by planning and implementing targeted behavioral changes. The results affirmed the critical role of CEs in supporting students through personalized approaches, beyond merely altering curricula or the structural organization of learning. These approaches included helping students shift their perceptions and responses to clinical learning challenges, implementing effective relaxation techniques, and focusing on successes, strengths, and specific positive coping strategies.

Between the first and fourth action research sessions, students' descriptions evolved from viewing learning stressors as negative and extrinsic forces beyond their control to focusing on how they were intrinsically managing and planning for them. Encouraging students to focus more on the process of treating patients, rather than on their personal, emotional, or somatic responses, helped them rediscover their motivations and aspirations for studying as health professionals. This suggested that emphasizing building students' resilience could turn them into active, engaged learners rather than passive recipients of teacher-centered learning. The authors highlighted the importance of recognizing and developing students' abilities to cope with clinical learning challenges, rather than relying solely on external changes to the educational environment. This approach emphasized utilizing the inherent skills and capacities within the students themselves.

5. Conclusion

The literature highlights the significant challenges faced by GS, particularly those in CSD programs, including stress, burnout, and mental health issues. To support these students, the development of resilience has emerged as a key strategy for mitigating these challenges and enhancing overall well-being and professional success.

6. Strategies for Building Resilience:

- **Self-Care Practices:**
 - Encourage regular physical activity, mindful relaxation, and engagement in self-care activities (Bullock et al., 2017; Findley, 2024; Malandraki, 2022).
 - Prioritize sleep quality to buffer against burnout and improve mental health (Allen et al., 2021; Bullock et al., 2017; Coffman et al., 2019; Malandraki, 2022).
- **Supportive Relationships:**
 - Foster strong supportive relationships with peers, mentors, and faculty to create a nurturing academic environment (Beck et al., 2020; Bogardus et al., 2022; Bullock et al., 2017; Coffman et al., 2019; Findley, 2024; Lieberman et al., 2018; Malandraki, 2022).
 - Promote open communication to reduce isolation and stress. Flexibility with assignments, adjustments with coordination of assignments/tests, limiting syllabus changes, and reducing workload. Consider adopting a pass/fail grading system.

(Beck et al., 2020; Bullock et al., 2017; Ellis & Briley, 2018; Lieberman et al., 2018).

- Mindfulness Interventions:
 - Implement mindfulness activities such as meditation, breathing exercises, and cognitive restructuring to manage stress effectively (Beck et al., 2020; Bogardus et al., 2022; Delaney et al., 2015; Findley, 2024).
- Resilience Training:
 - Incorporate resilience-building strategies into the curriculum, such as weekly wellness check-ins, clinical wellness journal reflections, and peer-counseling sessions (Delaney et al., 2015; Malandraki, 2022).

Pursuing a resilience program similar to that of Delaney et al. (2015) but tailored specifically for CSD graduate students could further enhance these efforts. Such a program would involve structured resilience training integrated into clinical education, focusing on equipping students with the skills needed to navigate personal, professional, and academic challenges. To ensure the research's reliability and applicability, future studies should broaden the diversity of the student population by including participants from across the country and conducting larger randomized trials. This approach would provide a more comprehensive understanding of resilience in CSD programs and lead to more effective and widely applicable interventions.

6. References

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