CAREGIVER INTERACTIONS AND BURNOUT IN SPEECH-LANGUAGE PATHOLOGY

by

Wyndi L. Capeci

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

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ABSTRACT

Speech-language pathology is a needed service for many children and adults. However, service provision is decreasing due to a critical shortage and an increased number of clients due to an aging population. Speech-language pathologists (SLPs) face near-insurmountable barriers to work satisfaction that manifest as burnout symptoms. This study aimed to examine the existing factor of caregiver contact, which is already prevalent in the therapy environment, and its relationship with symptoms of burnout. This quantitative study encompassed a quasi-experimental correlational design using a survey method to determine demographics, caregiver contact hours, and self-reported symptoms of burnout to address these issues. In total, 162 participants rated their burnout using the aMBI and provided information regarding their employment. The results indicated that caregiver contact hours do not have a significant relationship with burnout symptoms, but other demographic results had a strong relationship with burnout symptoms. Limitations and future directions are discussed.

Dedication

I dedicate my dissertation to my parents. Every day, I swim in the very big shoes of my mother, Mary Sue, and my father, John. Thank you, Mom, for your brave choices when I was young. Thank you, Dad, for instilling in me a love of learning.

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Thank you to my Lord and Savior, Jesus Christ, for guiding me to and through this journey. I have grown spiritually in ways that I never expected during this process.

I acknowledge my dissertation chair, Dr. Vail's support, wisdom, and guidance. I appreciate the insight, discussions, and guidance you have given me. This process was so much richer with your support; thank you.

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Speech-language pathologists (SLPs)

Abbreviated Maslach Burnout Inventory (aMBI)

CHAPTER ONE: INTRODUCTION

Overview

This quantitative survey study aimed to determine the relationship between caregiver contact hours and levels of burnout among speech-language pathologists (SLPs). As illustrated in the literature review, SLPs are in critical shortage and have increasingly high rates of attrition attributed to burnout, job satisfaction, and stress. These contributors to attrition have been static themes over the last 20-plus years, with few practical solutions to address the causes of burnout among SLPs. Research focusing on other unexplored variables (e.g., caregiver contact) that may impact burnout other than those found in these reoccurring, static themes have not been conducted in the past. The results of this study may inform the prevention of burnout in other ways than previously researched.

Background

SLPs provide speech and language therapy to pediatric and adult clients in many settings, including schools, home health, hospitals, rehabilitation settings, skilled nursing facilities, and private practices. Speech and language therapy consists of the diagnosis and treatment of communication disorders such as processes of language, speech production, pragmatics, hearing, fluency, voice, and cognition. Dysphagia (i.e., swallowing disorders) is also under the treatment domain of an SLP. Speech-language pathology is considered an allied health field. Other allied health professions include nursing, occupational therapy, and physical therapy. Speech-language pathology also touches the educational field by providing services in the school systems alongside teachers. This profession is both deep and comprehensive in its scope of practice. SLPs serve many different populations and disorders and provide many services across the lifespan.

The field of speech-language pathology experiences a critical shortage of professionals (American Speech-Language-Hearing Association [ASHA], 2020; Bureau of Labor Statistics, 2022). Examining variables contributing to burnout, stress, and job satisfaction can provide insights into how to retain professionals in the field successfully. Recurring themes have been analyzed in the literature for several decades with slight variations in research focus. For example, caseload size and salary compensation have been studied extensively over the past 40 years. However, little impactful change has resulted from these studies. Study results related to SLPs, as will be discussed in the literature review, indicate that the source of job frustrations for most SLPs is related to large caseload sizes and poor salary compensation (Edgar & Rosa-Lugo, 2007; Heritage et al., 2019; McLaughlin et al., 2008). Frustration due to large caseload sizes can be mitigated by higher salary compensation, resulting in lower rates of burnout (Ewen et al., 2021). Although this information is helpful, limited change has occurred in speech-language pathology due to the lack of resources needed to make meaningful changes that could decrease burnout symptoms, lower stress levels, and increase job satisfaction. Shifting the research focus to new variables may lend insight into more immediate and accessible solutions to decrease burnout, thereby retaining SLPs and meeting service shortage needs.

By 2022, job openings for SLPs in some areas of the country exceeded the workforce by 60–90%, creating a nationwide critical shortage of licensed clinicians (Bureau of Labor Statistics, 2022). The need for SLPs is projected to grow by another 29% by 2030, partially due to the aging baby boomer generation (ASHA, 2020; Bureau of Labor Statistics, 2022). The demand for adult services in home health care, skilled nursing facilities, and medical settings has increased with the aging population (Auerbach et al., 2015). Considering the current shortage of professionals and the rising need for adult services, examining the variables that create or

alleviate symptoms of burnout and stress has become more relevant to current practice and professional issues. These concerns have inspired researchers to explore why there is a shortage of SLPs and what variables could assist in retaining working professionals. This line of inquiry has resulted in evidence that supports the retention of current professionals and support for recruiting future professionals. It also validates previous inquiries that revealed specific variables related to burnout symptoms and stress levels.

The critical shortage of SLPs is also attributed to federal policy changes connected to funding sources for speech and language services (Hall-Mills & Price, 2017). Adopting the Every Student Succeeds Act in 2015 ensured that states would have more flexibility in creating an education program that provides students with the necessary support to achieve graduation. For many states, this greater flexibility meant an increase in the assessment and treatment of special education services, resulting in a higher demand for school-based SLPs (Every Student Succeeds Act, 2015). The field of speech-language pathology has experienced a critical shortage of professionals, especially in work settings, to treat aging adults and school-age children.

Problem Statement

Speech-language pathology is a profession experiencing a critical shortage aggravated by enormous caseload demands, contributing to symptoms of employment burnout and related stress levels. The current literature focuses on the same variables (i.e., caseload size and salary) with slight variation in discovery. The application of these findings is limited by significant legislative changes that need to occur at the state and federal levels. Other variables that may impact symptoms of burnout, such as caregiver contact, have not been measured.

The research evidencing how caregiver involvement during speech and language therapy significantly improves client outcomes is abundant. The foundational understanding of service

delivery results in many SLPs considering caregivers as integral parts of a client's treatment plan. Heritage et al. (2019) indicated that feeling that one's work is meaningful is directly linked to job turnover rates in speech-language pathology. They also noted that SLPs who felt embedded and connected to their treatment practice meaningfully were less likely to leave. Oh (2019) indicated that having an affective commitment to one's job and lower stress levels contributed to higher productivity and better service attitude, positively impacting client outcomes. Seeing clients succeed and improve can increase a therapy provider's well-being (Jenkins et al., 2021). This connection between caregiver interactions improving therapy outcomes and meaningful work improving therapist well-being inspires the following question: could there be a negative relationship between the variables of job burnout symptoms and working with caregivers? This relationship could be beneficial because SLPs with more caregiver contact hours would have lower burnout symptoms. If known measures that can predict burnout show that burnout is related to caregiver interaction, this has implications for future studies.

Ewen et al. (2021) conducted a thematic review of the current literature examining SLP well-being, burnout, job satisfaction, and stress. This study aimed to identify variables impacting these areas or ways to support SLPs and retain them in the field. Caseload, workload, paperwork, and overall work culture were identified as variables. Current studies on the interaction between caregivers and SLPs regarding work stress levels or job satisfaction are lacking.

Purpose Statement

This quantitative survey study aimed to determine the relationship between caregiver contact hours and SLP burnout. Specifically, it focused on whether SLPs with more caregiver contact hours have different rates of burnout from their peers who have fewer caregiver contact

hours and the relationship between caregiver contact hours and SLP burnout and SLPs working in various settings. This study included 162 SLPs, bachelor's level speech therapists, and speech-language pathology assistants working in any therapy setting. The methods for this study included a survey emailed to participants via listservs and SLP social media groups to measure demographics, caregiver interactions, and self-reported burnout levels. The independent variable for this study was contact hours with caregivers, and the dependent variable was the self-reported burnout rate.

Significance of the Study

Variables that impact job satisfaction, burnout, and stress are systematic processes related to funding, educational laws, and bureaucratic decisions(ASHA, 2020; Auerbach et al., 2015; Bureau of Labor Statistics, 2022). Individual SLPs have little control over these factors in their day-to-day roles. It would be conceivable for the average SLP to consider changing state and federal billing standards to reduce their caseloads or increase their pay so that they would feel less burnout. It is both unlikely and not feasible for most employees. Treatment delivery and the structure of a therapy session, though sometimes having specific required components, are mostly left to the discretion of the SLP. Therapy sessions are something that the individual SLP has personal control over, and they can effect immediate change during the session. If caregiver interactions reduce burnout, SLPs can independently and quickly change the structure of their therapy sessions to include more caregiver participation. It is hypothesized that this change could improve job satisfaction and reduce burnout symptoms and stress levels. The outcome could be increased retention of professionals in the field because SLPs would feel more embedded and connected to their jobs. Caregiver interaction improves client outcomes and is often a preferred approach to therapy (Klatte et al., 2020). SLPs are familiar with working with caregivers and

report confidence in interacting with caregivers (Chen et al., 2021). Including caregiver contact in a therapy session is something SLPs could do quickly and autonomously without having to tackle overwhelming systematic changes that have been suggested as impacting burnout in other studies. The results from this study can be applied to other allied health and education-based professions (e.g., nursing, social work, teachers, etc.).

Research Questions

RQ 1: What is the relationship between caregiver contact hours and speech-language pathologist burnout?

RQ 2: Do speech-language pathologists with more caregiver contact hours have lower levels of burnout?

The independent variable for this study was contact hours with caregivers, and the dependent variable was self-reported work-related burnout. As there is little research on caregiver contact and rates of burnout and stress, this study provides information regarding the interactions of these variables. This research encompassed a quantitative survey study to try and determine whether caregiver contact hours are related to burnout.

Definitions

Attrition: Leaving the professional field of speech-language pathology to work in another capacity outside of being an SLP or not working at all.

Bachelor's level speech therapist: A therapist with a bachelor's in speech-language pathology who has met the state requirements to practice at the bachelor's level (ASHA, 2022b).

Burnout: Feelings from chronic workplace stress that manifest as exhaustion, reduced productivity and efficacy, and negativity, cynicism, or a need for absenteeism from one's job (Maslach & Leiter, 2017)

Caregiver: A caregiver is the primary caretaker for the individual receiving speech and language therapy. For a child, a caregiver could be a parent, foster parent, grandparent, or any other individual responsible for the child's daily well-being. For an adult, a caretaker could be a spouse, an adult child, or an adult sibling responsible for their daily well-being.

Critical shortage: The field of speech-language pathology does not have enough providers to treat prospective clients (Bureau of Labor Statistics, 2022).

Job satisfaction: Having meaningful fulfillment and connection to one's work because of employment duties (Ocampo & Kennedy, 2019).

Speech-language pathologist (SLP): An SLP is a professional with a Master's degree who is licensed to prevent, assess, diagnose, and treat speech, language, social communication, cognitive communication, and swallowing disorders in children and adults (ASHA, 2016a). For the purpose of this study, this definition can include both a clinical fellow and SLPs with their Certificate of Clinical Competence.

Speech-language pathology assistant (SLPA): An SLPA has passed the American Speech-Language-Hearing Association (ASHA) Assistants Certification Exam and has met credentialing requirements for the state in which they practice as an assistant in the field (ASHA, 2022a).

Stress: The perception of being strained emotionally or mentally due to work tasks (Kumar et al., 2022).

Summary

This quantitative survey study aimed to determine whether a relationship exists between caregiver contact hours and SLP burnout symptoms and stress levels. As most previous research has focused on other variables that contribute to stress and burnout, there is a knowledge gap

about how different components of therapy impact stress and burnout. The results of this study may provide useful information to multiple stakeholders such as colleges and universities, policymakers, administrators, managers, employers, and, most importantly, SLPs.

CHAPTER TWO: LITERATURE REVIEW

Overview

The critical shortage of SLPs in nearly all settings has encouraged research on job satisfaction, stress, and burnout, as well as ways to support and retain the currently working professionals to reduce attrition and the critical shortage gap. Although previous studies provide crucial insights into the variables that impact job satisfaction, stress, and burnout, they focus myopically and repeatedly on the same variables and impacts. The body of knowledge about how interacting with caregivers as part of therapy service provision impacts stress and burnout is limited.

This literature review aims to summarize the history of research on SLP burnout and work-related stress while reflecting on job satisfaction. Also explored are the themes of attrition and retention, other allied health professionals, attitudes, and work commitment, as well as additional variables that have been known to contribute to burnout and stress. Finally, as this study aims to develop a theory within the framework of burnout and stress, a summary of job satisfaction is included.

Theoretical Framework

Employment-related stress and burnout are often measured based on the negative additions or absence of negative stressors (Avey et al., 2010). The study focused on positive factors such as additions, which are possible measures of stress and burnout. The positive addition was increased contact hours with caregivers. Research on adding factors related to speech-language pathology and burnout is limited. Gopi and Savitha (2020) analyzed data from related allied health nursing professionals and found that leisure activities could mitigate job stress. Similarly, nurses who showed higher rates of personal social support at work had lower

rates of burnout (Hamama et al., 2019). Walker et al. (2021) similarly suggested that early career teachers with strong personal supports (i.e., friendships, supportive colleagues, etc.) in the work environment and who have successful collaboration interactions at work had lower rates of burnout. As stated previously in this paper, a research lens exists to examine ways to reduce or eliminate negative stressors such as paperwork and caseload size, which have been a research focus for many years. For example, Marante and Farquharson (2021) suggested that SLPs in school settings can make small daily changes to reduce burnout. Still, their findings highlight ways to manage caseloads and paperwork and to advocate within the profession. These suggestions are informative and helpful in reducing or eliminating existing negative stressors.

Several models of examining stress in the workplace highlight the concerns of SLPs. The demand-control model is framed around an employee's lack of autonomy and limited control over their job (Karasek, 1979). This model includes the premise that having the authority to make decisions over one's work and the ability to discern when to use skills specific to the profession impact stress levels in the work setting (Ursin & Eriksen, 2010). The foundational concept is that the more one has authority and control over their work, the more likely they are to have lower stress levels. SLPs do not have control over systematic processes (e.g., legislation and billing procedures) over caseload and paperwork but can control and plan individual therapy sessions. The current research has focused only on the negative addition or absence of variables uncontrollable by the SLP and is a limited lens for examining stress and burnout. The demand-control model supports the idea that a lack of autonomy in one's job and the inability to make decisions can impact physiological and emotional health (Johnson et al., 1996). McClenahan et al. (2007) corroborated that limiting employee opportunities to make decisions and have control over their work increased job stress, negatively impacted burnout, and decreased job satisfaction,

but strongly recommended research to study specific occupations and their related job demands purposefully.

The effort-reward imbalance model of occupational health measures the rewards employees receive from their work (Siegrist, 2001). These rewards are intrinsic or extrinsic and are linked to stress, burnout, and well-being (Siegrist, 2005). SLPs have little extrinsic control over variables impacting their stress and burnout. For example, SLPs in school-based settings are subject to district, state, and federal regulations that dictate SLP pay (i.e., extrinsic rewards). One school district may pay SLPs the same salary as teachers. In contrast, another may pay them on a scale equivalent to other school-based therapy professionals (e.g., occupational therapists, psychologists, physical therapists, etc.), resulting in differences in compensation. SLPs working in private practice and medical settings may be compensated based on insurance reimbursement. Salary or pay would be an extrinsic reward. As previously discussed, changing extrinsic rewards can often appear daunting and overwhelming to an individual SLP.

A proposal in the current study focuses more on intrinsic rewards associated with feeling embedded in one's work. Two factors should be examined to understand intrinsic rewards. First, intrinsic rewards are as powerful in predicting job satisfaction as extrinsic rewards (Morgan et al., 2013). The intangible rewards of allied health-related work can be psychological and provide workers with feelings of positivity, altruism, and hope (Hughes & Marcantonio, 1991). These feelings can balance out, to some extent, the absence of extrinsic rewards. Second, intrinsic rewards are closely linked to intrinsic motivation. Although motivation generally comes before any reward and is the reason for doing something, it is tightly connected to what you get from that action (i.e., extrinsic and intrinsic rewards; Negussie, 2012). Van den Broeck et al. (2021) suggested that intrinsic motivation may draw some individuals to specific professions. SLPs may

be in the field because they are naturally, whether through personality or learning style-related factors, drawn to working in a helping profession. For example, an individual may be intrinsically motivated to work as an SLP because they find satisfaction in the feelings associated with intrinsic rewards from helping others (Katz et al., 2013). When opportunities for intrinsic rewards are thwarted, it can impact overall job satisfaction, burnout, and well-being. Rooney (2015) reported that teachers felt that changes in their jobs decreased intrinsic rewards and their job satisfaction. Even though the teachers perceived that their extrinsic salary reward was not satisfactory, they felt embedded in their work and intrinsically rewarded. They lost that balance when they could not teach in a manner that aligned with their beliefs due to administrative changes and shifting of job duties. Cunningham et al. (2022) argued that healthcare professionals who are satisfied with their job from an intrinsic perspective tend to be in positions that allow them some decision making and autonomy over their role, as discussed in relation to the demands-control model (Karasek, 1979). Examining the difficulty SLPs face with changing extrinsic rewards, such as caseload and pay, further suggests that shifting the focus to what can be added to the work experience to support the intrinsic rewards could provide new insights.

Isolating intrinsic rewards from extrinsic rewards entirely in a work setting is difficult, if not impossible. In the Cunningham et al. (2022) study, the participants who showed more intrinsic satisfaction were also in more managerial or supervisory positions where compensation was higher, which may have impacted job satisfaction. These positions also may have had duties that required more autonomy and decision-making as part of their job description.

Theoretical Framework of Stress

The body's response to stressors includes a pattern of responses that contributes to burnout and job dissatisfaction. Using general adaptation syndrome as a guide for the body's

response to stressors allows researchers to understand the full spectrum of burnout's impact on an employee. General adaptation syndrome was first introduced in the 1930s (Selye, 1938). This concept suggests that the body's response to stressors includes endocrinological and neurological responses that are involuntary and individualized (Selye, 1938). These responses can trigger pathophysiological impacts that alter the body's reaction and social-emotional well-being.

Stressors can include positive and negative triggers that signal excitement, danger, pleasure, or disgust. Essentially, triggering these signals causes a person to "feel" a certain way based upon physiological and emotional responses that are often protective measures for the body simulated by neurochemical reactions (Gorban et al., 2016). Stressors can manifest in various ways, including sudden and dramatic symptoms like a natural disaster or unexpected event. Stress can be positive and increase productivity and interactions. It can also be linked to trauma responses and related diagnoses. For the current study, the manifestation of daily chronic stress was considered the contributor to burnout for SLPs. Groen et al. (2022) conducted a study that indicated daily stress contributed to feelings of irritability, worry, and exhaustion in the majority of the participants. Stress levels, not stress reactivity, were linked to social dysfunction and psychopathological severity in daily life. Stress reactivity would be one's predisposition or tendency to respond to stress, whereas stress levels would be the body's measurable response to stress (Kiecolt-Glaser et al., 2020). This theoretical approach and evidence suggest that SLPs who work even part-time weekly can be impacted by stress levels.

General adaptation syndrome develops in three stages: alarm, resistance, and exhaustion. The alarm stage is informally known as the "flight or fight response," which includes flight, fight, fawn, and freeze, where the body's sympathetic nervous system engages in a series of chemical reactions that cause a protective response. This response can be "fight," when someone

responds with aggressive behaviors such as being defensive or argumentative, or “flight,” when the response is to run, avoid, flee, or hide as a protective mechanism. “Fawn,” an often-overlooked response, is the reaction of pleasing or complying as a protective response. Lastly, “freeze” is the inability to take action and literally be frozen without response, even if there is imminent danger. Regardless of the response, physiological responses are evident in this stage, including dilated pupils, increased heart rate, blood redistribution in the body, and other physical reactions (Uhrenik, 2017). Although the alarm stage tends to suggest more sudden stressors (e.g., traumatic stressors), daily stress can also trigger these responses. The cognitive activation theory indicates that stress over time, even if not related to immediate danger, negatively impacts a person’s well-being (Ursin & Eriksen, 2010). This relationship is essential when thinking about SLPs who may not be facing imminent danger but, instead, experience the daily stress of large caseloads and limited ability to effect change.

The second stage of resistance is when the body begins to repair and revert to homeostasis. However, long-term stress can alter the body’s ability to repair and return to a " normal state,” resulting in a continued stress response that can lead to high blood pressure, bowel issues, and difficulty sleeping (Balcioglu, 2022). Mental health can also be impacted due to continued anxiety, depression, and other symptoms (Restrepo & Lemos, 2021). According to the general adaptation theory, SLPs working at least weekly could be experiencing frequent, long-term stress that could impact their overall health and well-being. The third stage of general adaptation syndrome is exhaustion. This stage encompasses fatigue and burnout, and it was the focus of this study on SLPs.

Health manifestations of stress are numerous and can impact nearly all structures and functions of the human body (Balcioglu, 2022). Stress mitigation can be supported through

counseling techniques such as guided imagery, breathing techniques, and mindfulness (Anderson, 2021; Stiller, 2022). Physical activity and avoiding triggers are often suggested for mitigating stress (Das & Adams, 2021; Kim & Gurvitch, 2020). However, for many SLPs, avoiding the triggers of stress may mean changing jobs or careers, which may not be a feasible option.

Theoretical Framework of Burnout

Burnout has been a focus of employment research since the 1970s. During this decade, the observations and the impact of lack of motivation and job satisfaction among workers became a mainstream discussion among employers (Freudenberger, 1974). Models of burnout focus on work stressors or demands, personal and professional consequences of burnout, and frameworks for reducing burnout (Richardsen & Burke, 1995). Although several theoretical frameworks of burnout exist, Maslach's (1998) approach to burnout was the foundational concept for the current study. Maslach suggested that burnout is a direct response to stress at work, characterized by depersonalization, emotional exhaustion, and personal accomplishment. Depersonalization is a loss of idealism and disconnect with colleagues, clients, and others in the work environment. Emotional exhaustion is feeling emotionally drained and not having the emotional resources to address situations and interactions in the workplace. Still, it can ripple to relationships outside of work and impact family relationships and friendships. Tsukerman et al. (2020) conducted a 20-year study that indicated that negative work situations and stress can negatively impact family and peer relationships in a spillover from employment dissatisfaction. Lastly, personal accomplishment encompasses feelings of success, competence, and positive performance in the work environment. All three of these characterizations are the themes explored in this review of literature related to SLPs.

Maslach's (1998) model of examining burnout consists of six work dimensions that contribute to an employee being in a state of burnout, which include control, reward, workload, community, fairness, and values. The aspect of control would be related to the SLP having control over resources to complete their job. The SLP may have limited access or no access to materials, time, or training that would benefit client intervention. Individuals receive both intrinsic and extrinsic rewards for their work. For SLPs, extrinsic rewards can be financial compensation or praise from supervisors. Research indicates that some of these rewards are lacking for SLPs (Tillard, 2011). The workload dimension would be defined as the amount of work and demand. Community could be described as interactions with coworkers, clients, and other individuals associated with employment. The absence of community results in a lack of a social support system within the work environment. Fairness would be related to how one was treated tangibly (e.g., pay or job duties). The dimension of values is how the performance of job duties aligns with personal values. The framework suggests that if there is a mismatch or disconnect between the employee and these dimensions that persists for an extended period, then burnout results (Maslach & Leiter, 2017).

Quality of the Therapeutic Relationship

To better comprehend the field of speech-language pathology, one must understand that providing communication treatment involves working with the client and their everyday communication partners, who are often also their caregivers. Assessment and treatment of communication disorders involve the contributions and involvement of these communication partners. SLPs feel an emotional responsibility when interacting with caregivers during evaluation or treatment (Gold & Gold, 2021). In a study by Klatte et al. (2020), SLPs treating child clients preferred intervention practices that allowed them to collaborate with the caregiver.

If a caregiver is involved and invested in therapeutic intervention, they can provide carryover of treatment techniques outside of the treatment session. This involvement and opportunity for carryover is one of the primary reasons caregiver involvement improves client outcomes (Clark-Whitney et al., 2022; Mandak & Light, 2018; Seruya et al., 2022; Wall et al., 2016).

To consider provider and caregiver interactions, there must be an understanding of the quality of client and provider interactions within the therapeutic setting. This interaction is often labeled a therapeutic relationship or therapeutic alliance. The development of psychoanalytic approaches contributed to the concept that the alliance between a provider and their client is an agreement upon treatment goals, trajectory of service, and the continual bond of client and provider (Bordin, 1979). The connection between a client and their provider is paramount to the success of an intervention in that it instills trust, fosters motivation, and inspires hope. It has long been assumed to be a part of any provider/client interaction (Bordin, 1979). Recognizing the importance of quality interaction between a client caregiver and provider is necessary to be successful and develop these qualities, which cultivate a successful and efficacious treatment session (Yelin et al., 2015). Measuring the quality of a therapeutic relationship is complex and dynamic due to the various reasons for the relationship, personalities, functions of the assessment, and therapy goals (Greenhalgh & Heath, 2010). For example, if the function of the relationship is to determine a diagnosis through an assessment, that would be different from services for transition to home care from the hospital setting.

Evidence indicates that specific client and provider behaviors are linked to positive client outcomes and a favorable therapeutic alliance (Held et al., 2022). Isangula et al. (2022) conducted a qualitative study to examine the relationship quality of a specific client and provider interaction. The results suggested that providing providers with extrinsic and intrinsic rewards

improves this relationship because these rewards increase their commitment to the process and job satisfaction (Isangula et al., 2022). The study also revealed that nurses with poor communication skills or poor attitudes toward their clients had a less favorable relationship with their patients. Although this outcome seems logical, the study also indicated that these skills were not just specific to the provider and often reflected the more extensive healthcare system. For example, if the nurse feels underpaid and overworked, this may manifest in patient interactions. Consequently, patients may create individual barriers by dreading interactions with this provider, being late, missing appointments, or being unreceptive to healthcare suggestions (Parsons et al., 2021). These patient behaviors then perpetuate the negative interaction between the provider and the client, further diminishing the therapeutic relationship. This finding suggests that employers and systems are culpable in the therapeutic relationship and impact the daily interactions between their employees and the persons serviced.

Although strong therapeutic alliances are considered necessary and beneficial, they may be challenging to develop and maintain over time due to the novel nature of a new relationship. Hartley et al. (2020) reviewed existing nursing and therapeutic alliance literature and discovered weak evidence of what supports and sustains quality patient relationships. Although Hartley et al. suggested that this outcome is due to poor methodology and scope of study, it may also be due to the uniqueness of each interaction being so individual and specific, as when each provider and client changes, efforts must be renewed with each new relationship (Forchuk, 1995). The age of the client can lend more responsibility to the caregiver. For example, a toddler will have a relationship with the provider, but so will the caregiver. The dynamic of therapeutic alliance can also change depending upon the service setting. Daniel and McLeod (2017) suggested that in school settings, caregivers rely on the teacher and staff to assist them in monitoring their child's

communication skills and identifying possible communication disorders. In a school-based setting, parents will not likely sit in on a session as they would in early intervention or outpatient/private practice sessions.

The landscape of allied health service provision has changed the nature of therapeutic relationships (Seefeldt et al., 2022). Although the core tenets of shared goals and relationship bonding in a therapeutic alliance (Bordin, 1979) have not changed, how clients and providers navigate it may have been altered in some situations. First, the change in medical models means that clients view the relationship as more of a consumer relationship. Clients often perceive that they are at the advantage of choosing or changing providers when unsatisfied with the relationship. This perception has altered the dynamic in that clients may change providers early in the process of building an alliance between provider and client rather than allowing a relationship to develop (Zugai et al., 2015). Although this is assumed not to be the norm, some clients may "shop" for a provider who provides them with the information they seek rather than seek a quality provider. The increase in telehealth has also shifted the therapeutic relationship, adding other facets of diagnosis and treatment (Weidner & Lowman, 2020). The interaction style of therapy over telehealth lends to different therapy techniques and building a relationship. In some situations, the easy access for many people logging in to a therapy session has resulted in more or less caregiver involvement in the therapy process.

Although the landscape of therapy provision is changing, and there is a call for more robust research regarding the quality of provider/client interactions, the relationship between a client and their provider is inevitable. It would be an egregious oversight not to include the caregiver in this dynamic because speech-language pathology is an inherently social and communicative service that requires caregivers' participation or, at the very least, peripheral

involvement. An earlier discussion in this chapter highlighted how relationships may vary based on the individual situation of the client's needs, age, or setting for therapy. Caregivers are highly reliant professionals in the educational setting to guide their child's academic development (Paradice & Adewusi, 2002). Although their direct presence is limited in a school setting, as they are not present during services, there is evidence that caregiver concerns and needs persist across settings and ages. Grimstvedt et al. (2021) conducted a qualitative study with seven caregivers of individuals with Huntington's Disease. They discovered feedback from both patients and caregivers regarding the need for caregiver involvement in the therapeutic process and the positive perceptions of both stakeholders regarding the involvement of caregivers. Communication benefits are psychosocial and increase client participation in the community when caregivers have contact with the SLP (Trembath et al., 2021). Caregiver education is often expected as a foundational component of speech-language therapy for pediatric and adult clients (Quinn et al., 2021; Trembath et al., 2021). Although caregivers and clients may have different concerns as they are both stakeholders in a relationship with different perspectives, caregivers can provide additional information to a session, increase client access to communication opportunities, and improve life skills. In a cross-sectional sampling of perceptions of therapy, Wall et al. (2016) found that caregivers and head and neck cancer patients reported similar levels of distress related to swallowing and communication skills.

Klatte et al. (2020) conducted further research regarding collaborations with caregivers, indicating that collaborating with caregivers is a preferred and frequently used therapy method across speech-language pathology settings and environments. SLPs prefer working with caregivers because evidence-based practice has shown that many populations benefit from having their caregiver involved, and caregiver involvement increases client outcomes (Clark-

Whitney et al., 2022; Klatte et al., 2020; Seruya et al., 2022). Caregiver involvement supports the carryover of services outside the therapy session and the training of everyday communication partners in techniques that support communication (Clark-Whitney et al., 2022; Seruya et al., 2022). For example, clients in early intervention are more likely to meet their communication goals if a caregiver is involved in the session (K. Melvin et al., 2021). Because SLPs are already working purposefully with caregivers, interacting with the caregivers of a client could create opportunities for increased empathy and compassion. Schabram and Yu Tse (2022) conducted a longitudinal study to determine what variables replenished mental health due to burnout and provided a possible link when interacting with caregivers. The study revealed that self-compassion and compassion toward others assisted in easing the exhaustion and cynicism related to burnout.

Caregivers are motivated to engage in the therapy process, as evidenced by an ethnographic study that revealed that caregivers prefer to engage in attending therapy, participating in sessions, and working on skills with their loved ones outside of the therapy session (K. Melvin et al., 2021). Although K. Melvin et al. (2021) did not examine the SLP's perspective, they demonstrated caregivers' different interactions with SLPs. They fortified the importance of compassion in a provider’s well-being. SLPs and caregivers value collaboration during therapy (Mandak & Light, 2018). SLPs are very well-trained in working with caregivers and feel confident as professionals collaborating with caregivers during treatment (Chen et al., 2021).

SLPs in different settings may interact with caregivers in various ways. In early intervention, caregivers are most often present for therapy sessions and are expected to participate during the session. In medical settings, caregivers may be involved to support the

transition to home care. Schools may interact with caregivers more through writing or phone calls. Tambyraja et al. (2017) reported that school-based SLPs reported that using written communication logs to communicate with caregivers often resulted in increased student outcomes.

Establishing a caregiver's importance, role, and need to be part of therapy for increased client outcomes places the caregiver as a foundational and frequent stakeholder in therapy sessions. The therapy model that includes a client and their caregiver is fundamental to the treatment process for communication disorders. Caregiver involvement is such a foundational building block to treatment that it is embedded in an SLP's graduate training and competencies (Hernández & Hadley, 2020). Caregiver involvement is complex and necessary, and it notably improves client success in treatment across populations and settings (K. Melvin et al., 2021). This widely-known contributor to positive therapy outcomes has resulted in treatment approaches, models, and SLP training, often including caregiver involvement. Caregiver involvement is integral for patients in a hospital setting or medical setting due to the transitional care that a patient will receive when moving from a hospital or rehabilitation setting back to a home, and client outcomes are more substantial when a caregiver is included in the therapy process (Wall et al., 2016). Early intervention settings are deeply integrated with caregiver involvement, and some sessions may consist of more caregiver contact than client contact (Seruya et al., 2022). Additionally, many approaches and models include caregiver components because evidence shows increased client success when a caregiver is part of a therapy session (Clark-Whitney et al., 2022). Based on the literature and current treatment perspectives, SLPs would presumably interact frequently with caregivers in person, via written communication,

phone, or other communication modalities. This pervasive facet of caregiver and SLP interactions is yet to have been examined regarding their impact on provider burnout and stress.

Compassion Fatigue and Compassion Satisfaction

Compassion fatigue is the mental and emotional exhaustion that can be felt from caring for or working with individuals who are ill or traumatized (Jilou et al., 2021). It can sometimes result in stress, impact work productivity, impact physical and mental health, and have further effects on client outcomes. A health professional's coping strategies powerfully shape the impact they feel related to their client interactions (Jilou et al., 2021). SLPs work with individuals who are sick, have debilitating conditions, and may have experienced trauma. As such, they must support clients through feelings of frustration, loss, and the physical and emotional manifestations of managing a communication disorder (Polovoy, 2014). This phenomenon of compassion fatigue is often seen as contributory or developing and is associated with burnout (Marshman et al., 2022). Professionals working in allied health and education can be particularly vulnerable to compassion fatigue due to the triad of working with clients who have a high complexity of needs, being responsible for the diagnostic procedures to diagnose and measure progress, and the constant clinical decision-making required to provide services (Fourie, 2011). The responsibility of being an SLP can weigh heavily on the provider and cause compassion fatigue, stress, and burnout that can negatively impact their clinical judgment, work productivity, and client outcomes (Sorenson et al., 2016).

Conversely, compassion satisfaction is the satisfaction gained from working with individuals who are sick, disadvantaged, or have experienced trauma. It occurs when a provider experiences positive emotions and feelings from their service provision and client interactions. Although compassion fatigue is often assumed to be related to positive client outcomes, it is not

clear what makes one provider flourish when working with a client with complex needs and another experiences burnout or compassion fatigue. Clark et al. (2022) suggested that having low levels of compassion satisfaction and high levels of burnout can also contribute to imposter syndrome, where professionals struggle to connect their successes to their skills. Imposter syndrome can lead to job dissatisfaction, burnout, attrition from the field, and other negatively associated responses.

The opportunity to cultivate compassion satisfaction can begin in training stages (e.g., college), at the administrative level, and with the individual provider (Audin et al., 2017). Silveri (2018) suggested that using the job-demands resource model can support providers in having compassion satisfaction rather than compassion fatigue by examining the resources available to them and cultivating them. The job demands-resource model suggests that resources may need to be increased to help offset high-demand jobs. SLPs may need to examine what resources they can independently modify if systemic issues become barriers. For example, Buonomo et al. (2021) determined that compassion satisfaction and care for students mediated work engagement in teachers but not more prominent themes such as issues with leadership and administration. The relationship and importance of working with caregivers may also increase compassion satisfaction and mediate burnout and stress. Predicting burnout can also support overall well-being in the workplace (Tabatabaei-Barzoki et al., 2018).

The emotional costs of working with clients can result in compassion fatigue and burnout. These factors can exist simultaneously or separately, and it is often unclear why one provider flourishes when presented with the challenge of stress and another struggles with professional burnout. Little has been studied regarding the positive impact of working with client caregivers on burnout and stress.

Related Literature

Attrition and Retention

Attrition and retention are essential concepts in the field of speech therapy, where the workforce size is already limited and the demand is high. In a field with a critical shortage, concerns about maintaining professionals in the workforce are valid areas of examination. Determining why SLPs leave the field can create solution-based employment strategies for retaining therapists. Heritage et al. (2019) surveyed 239 SLPs and discovered that high attrition rates in the field were due to work-related stress. This outcome is particularly concerning when one examines the critical shortage of SLPs in the field and its devastating impact on clients and patients waiting for services in the United States (McGill et al., 2020). The aging population of Baby Boomers is resulting in more geriatric patients needing speech and language services (Auerbach et al., 2015). This combination of an existing shortage and increased demand for services further highlights the need for focused research on the attrition and retention of SLPs.

McLaughlin et al. (2008) sought to determine the common themes that result in a decrease or increase in work stress. These researchers also examined the participants' opinions on why SLPs leave the field and discovered that lack of administrative support, high caseloads, and paperwork demands were primary reasons for attrition from the field. Ewen et al. (2021) used a thematic analysis to review over 2,000 research articles for themes on SLP well-being, job satisfaction, and job stress. Seventeen articles yielded the themes of caseload size, administration support, and job autonomy as contributors to high job satisfaction, well-being, and job stress. Specific job duties, such as interactions with clients and caregivers, were not analyzed for this study, and a research gap was highlighted. Notably, the themes revealed in this analysis circle back to the same recurring themes regarding burnout and stress identified over several decades.

These themes also highlight the work dimensions of control, reward, fairness, workload, and community contributing to employee burnout (Maslach, 1998).

Attrition, retention, and recruitment are essential to the field of speech-language pathology due to the critical shortage of providers across work settings (e.g., schools, acute care, rehabilitation centers, etc.) and are frequently linked back to work-related stressors with a focus on what causes SLPs to have work-related stress and burnout. Solutions to these factors are complex and can change due to budgetary allocations, state and federal guidance, and high service demand. Control, reward, community, and fairness (Maslach, 1998) are the dimensions the SLP cannot change systematically.

Job Satisfaction and Burnout

To work at the top of the license, an SLP must complete six years of education. This training is a significant financial and time commitment. Examining attrition and retention brings attention to job satisfaction because leaving a profession that requires years of education suggests that there must be a serious reason informing the decision to leave the profession. Abandoning a career requiring six years of higher education and significant financial resources to join seems a drastic decision. There is an assumption that job satisfaction should trump work stressors in speech-language pathology. Understanding what constitutes job satisfaction for SLPs is essential to improving job satisfaction, reducing burnout, and increasing retention. Boynton and McDaniel (2020) examined job satisfaction in school-based SLPs and found a correlation between higher pay or more years of experience in the field and higher job satisfaction. Amir et al. (2021) surveyed 368 school-based SLPs in New York State regarding their opinions and perceptions of factors related to job satisfaction. The study results indicated that collaboration

with other professionals positively impacted job satisfaction. Conversely, workload, caseload sizes, and a lack of administrative support negatively impacted job satisfaction.

Caseload, paperwork demands, and lack of support are recurring themes in the literature when examining reasons for attrition and decreased job satisfaction (Amir et al., 2021; Boynton & McDaniel, 2020; Ewen et al., 2021; McLaughlin et al., 2008). Blood et al. (2002) conducted a regression analysis to analyze the responses of over 1,600 school-based SLPs who responded to a survey. The results indicated that SLPs showed increased job satisfaction with an increase in age and a decrease in job satisfaction with an increased caseload and increased paperwork. This study was conducted over 20 years ago and does not represent the school's changing work environment and demands. This study focused on the same variables rather than the interaction with clients and caregivers. Although this article is not recent, it highlights the same concerns plaguing the school-based SLP community regarding job satisfaction. Researchers continually indicate that caseloads and paperwork are barriers to job satisfaction for SLPs. Despite ample evidence of concerns and needs regarding caseload and paperwork, little has been studied regarding other meaningful impacts on SLPs and their stress levels, burnout symptoms, or job satisfaction. Additionally, the caseload/paperwork variables have been nearly a myopic focus for over 20 years, and very little change has come from this knowledge. State and federal legislation must be altered in educational and medical arenas to change caseload numbers or paperwork requirements.

The colloquial assumption is that burnout and job satisfaction contribute to one another (Dall'Ora et al., 2020). However, burnout is not an easily navigable concept in speech-language pathology due to the varying work settings and their demands. For example, a school-based SLP with groups of 4–6 students per session will have different documentation and paperwork

demands than an outpatient clinic-based SLP treating one client at a time. This murky variability was confirmed by a study surveying SLPs and their perceptions of burnout (Brito-Marcelino et al., 2020). The results indicated that the impact of burnout on SLPs varied greatly due to the differing variables based on different practice settings. It may be that some settings lend SLPs more personal ability to make changes in the Maslach (1998) dimensions of control, reward, workload, community, fairness, and values. It may also be that in different settings, the extended time these dimensions of burnout persist varies, resulting in lower levels of burnout (Maslach & Leiter, 2017). These potential relationships have resulted in research limitations and findings that do not provide consistent information across the profession, suggesting a gap in the literature regarding stress levels and different work environments for SLPs.

Burnout not only contributes to occupational safety concerns but also impacts attrition rates. Studies in occupational therapy, a related allied health field with similar variation across settings and populations and speech-language pathology, have shown high levels of support from administration, compensation, and continuing education directly related to lower levels of reported burnout (Shin et al., 2022). Individuals who have exhibited symptoms of burnout are less likely to remain employed in that setting, have higher rates of absences, and have more mental and physical health symptoms (Camacho et al., 2021). Yener and Coşkun (2013) indicated that increased job demands created a related increase in burnout. They further found that having access to employment resources can decrease incidents of burnout. This finding suggests employers could mitigate burnout and stress by providing additional assistance, compensation, and emotional acknowledgment.

Predicting burnout is meaningful and helps guide possible interventions. However, burnout is multifactorial and requires the examination of various job factors for specific

professions. For example, some professionals may find that the demand for therapy documentation contributes to burnout (Lou et al., 2022). In contrast, others may find that lack of autonomy makes one feel more burned out in their job (Khan et al., 2022). The Maslach Burnout Inventory (Kavan & Powell, 2021) examines factors of burnout that SLPs encounter daily in their jobs, regardless of their work setting. It has long-form and short-form variations, allowing more efficient and productive administration. Riley et al. (2018) measured 493 health professionals for burnout using the long form and short form of the Maslach Burnout Inventory. The results indicated that the short version could identify service providers who were at risk for burnout or were experiencing burnout related to their jobs just as readily and effectively as the long-form version. The implications are that the gold standard long form is still necessary and preferable. Still, when considering financial and time resources, the short version may link service providers experiencing burnout more quickly with mental health support. This tool is especially relevant in fields such as speech-language pathology, where there is a critical shortage, and predicting burnout may allow the provision of interventions to curb attrition from the profession.

Comparative Profession Studies

Examining stress, burnout, and job satisfaction of SLPs is helpful but inspires the question, “How do they compare across settings?” For example, does a medical SLP have the same job satisfaction as a school SLP? Kalkhoff and Collins (2012) conducted a quantitative research study surveying 250 SLPs to determine their levels of job satisfaction. The themes identified were pay, promotion, supervision, benefits, contingent rewards, operating conditions, coworkers, nature of work, and communication. The results of a linear regression analysis indicated that medical SLPs were significantly more satisfied with their job than school-based

SLPs. Although workload and paperwork have been prevalent variables in the literature, it has been established that they continue to be recurrent variables of concern for job satisfaction in the last 20-plus years (Blood et al., 2002). This outcome suggests a gap in the literature where different characteristics of treatment provision, such as caregiver interactions, may lend new information to the problem of job satisfaction.

SLPs work not only in different settings but also in rural, suburban, and urban environments. Harris et al. (2009) examined the stress factors in rural versus suburban SLPs. The results indicated that both environments reported an increase in stress related to caseload size growth, financial compensation, and use of prescription drugs (e.g., SSRIs and antidepressants). No difference was noted between the responses of rural versus suburban SLPs based on stress and their year of experience. Since the Harris et al. study, telehealth services have markedly increased rural access to speech-language pathology services (Sutherland et al., 2017), with a further increase in telehealth services due to COVID-19 (Sylvan et al., 2021).

Further inquiry creates questions about comparing the stress levels and burnout symptoms between allied health professionals and school staff. Understanding how other professionals in similar settings experience burnout and stress may lend insight into SLP burnout. Nurses, occupational therapists, physical therapists, and SLPs are often categorized together in allied health settings. Bruschini et al. (2018) used quantitative and qualitative measures to compare stress levels and burnout between three allied health professionals: physical therapists, occupational therapists, and SLPs. Although they found no significant difference between the three professions, there were heightened levels of work-related stress for all professions studied related to pay, paperwork, and caseloads. The variables measured focused on broader common employment themes rather than specific client and caregiver interactions.

Attitudes and Work Commitment

Attitudes toward work and the evidence of commitment are also contributing factors in examining burnout. Being an SLP combines service provision, customer service, and scientific application (Oh, 2019). This unique combination often requires providers to do more than the minimum job duties. Going "above and beyond" is connected to attitudes surrounding successful treatment. Sylvan et al. (2021) investigated the variables of job satisfaction, stress, and job performance characteristics. The premise of this study was that working in allied health requires an orientation to service and doing more than the minimal job competencies that come with employment in a helping field. As a service provider, it is implied there will be frequent instances of providing service or extraneous work outside the general job duties or the skilled service. For example, an SLP may go "above and beyond" the listed duties of providing therapy and documenting their service. It could include providing additional resources and contacts for housing or food security (ASHA, 2010). Though not listed in a job description, these roles are expected as part of working in human service and a code of ethics (ASHA, 2016b). In the study by Sylvan et al. (2021), 164 participants self-reported on a questionnaire that when their stress level was higher, their service attitude was lower. This study focused on the general attitude of service rather than profession-specific attitudes related to treatment, assessment, and working with their clients' families. The participants reported that inadequate compensation was linked directly to service attitude, suggesting that pay, stress, and service attitude were related.

Feelings of empathy towards clients may impact burnout and stress. Wink et al. (2021) surveyed 178 teachers to examine their student relationships, behaviors, and approaches for handling behaviorally challenged students. The results indicated that teachers with higher cognitive empathy had more positive mindsets about their students and used more effective

behavioral strategies with their students. These teachers also had lower job burnout rates. Teachers who scored higher in affective empathy had more negative mindsets toward their students and engaged in less problem-solving for effective strategies and higher job burnout. This study helped establish that having a specific orientation or perception of clients is related differently to job burnout.

An awareness of being burned out is neither helpful nor harmful to SLPs. Askarizadeh et al. (2017) determined that being mindful of work factors contributing to burnout does not impact burnout rates. Conversely, Taylor and Millear (2016) conducted a study to examine whether mindfulness was a predictor of burnout by using multiple regression to measure each component of burnout in 381 employees. The results indicated that certain facets of mindfulness were predictive of burnout but were environment-specific. This finding again highlights that variability in the workplace setting is vital to analyzing burnout.

One interesting factor that can contribute to an employee's attitudes and feelings toward their job is self-advocacy (Zhai et al., 2022). The ability to advocate within a work setting can create positive feelings of commitment and satisfaction. Lugo et al. (2022) conducted a mixed-methods survey to examine SLPs' opinions and views on advocacy in the school setting. Advocacy for this study was defined as "policy advocacy," where advocating for students, causes, legislative, and administrative were included. All four of these advocacies were included due to the frequent overlap of each in the school setting. The results indicated that less than 15% of respondents had advocacy training, but over 40% felt their role in school advocacy was crucial. This role included advocating for their clients and service needs at the building level and serving as an SLP. The finding suggested a need for advocacy training and support for both self-advocacy and client advocacy. Suggested areas for further research included improving

preparations for school-based SLPs to have advocacy roles as professionals. This study is related to other studies (Amir et al., 2021; Boynton & McDaniel, 2020; Ewen et al., 2021; McLaughlin et al., 2008) that pinpointed that job stress is related to SLPs' perceived inability to impact change due to school-based factors increase stress.

Creating meaning in life and one's work can decrease burnout. It can be argued that a sense of purpose or perceiving one's job as meaningful creates a positive connection to employment. Alfuqaha et al. (2021) discovered that existential vacuum and external locus of control were the main predictors of participants surveyed for burnout. A lack of direction or feeling futile about work can contribute to an existential vacuum, as is feeling like there is a lack of purpose or meaning in work tasks. Having feedback from caregivers regarding client success can significantly increase usefulness and remove feelings of futility (Accurso & Garland, 2015). Tabatabaei-Barzoki et al. (2018) examined the existential qualities as reported by 385 teachers to explore a possible prediction between these qualities and predicting burnout. The results indicated that these factors are most likely related to burnout. The personal relationships of service providers, clients, and caregivers can contribute to meaningful work.

Interacting with caregivers allows more insight into a client's daily living and increases opportunities for gaining empathy. Lopes and Nihei (2020) noted that the variables of self-efficacy and empathy can predict burnout. In a study of 284 nursing students, the researchers found a negative correlation between empathy and depersonalization and between self-efficacy and emotional exhaustion. The predictors of burnout were high workloads and low empathetic concern for patience, resulting in a positive correlation between personal accomplishment empathy and self-efficacy. This finding suggests that empathy and self-efficacy can prevent

burnout, and this study echoes the theoretical framework of burnout using Maslach's (1998) dimensions of burnout.

Job embeddedness and professional self-concept were determined to predict burnout in nurses based on a study of 308 nurses self-reporting on a questionnaire (Goliroshan et al., 2021). These results suggest that a supportive work environment increases commitment to the job and professional self-concept. Maslach (1998) indicated that a lack of community and a sense of connection is a dimension of burnout that can contribute to depersonalization, emotional exhaustion, and limited feelings of personal accomplishment. Building a community with caregivers may be an area where SLPs have control and can make effective changes in their work environment versus more prominent systematic dimensional themes such as workload and fairness.

Studies on stress and burnout among SLPs in public schools are abundant. Harris et al. (2009) conducted a study over a decade ago to examine these variables, and the focus has continued in recent years to include looking at stress and the impact of stress on SLPs (Sylvan et al., 2021). A plethora of studies exists on stress and job satisfaction of SLPs in public schools (Amir et al., 2021; Blood et al., 2002; Boynton & McDaniel, 2020; Camacho et al., 2021; Edgar & Rosa-Lugo, 2007; Harris et al., 2009; Kalkhoff & Collins, 2012; Marante & Farquharson, 2021; Ocampo & Kennedy, 2019). However, SLPs work in various settings including, but not limited to, acute care hospitals, inpatient and outpatient rehabilitation, rehabilitation hospitals, early intervention, home health, schools (public and private), clinics, private practices, telehealth, and preschools. This variation in work setting means SLPs have different opportunities to work with caregivers. For example, in many early intervention settings, caregiver coaching is required; an SLP may work with the caregiver 80% of a session and a client 20%. Acute care SLPs may

have different access to caregivers if a caregiver works during regular 8–5 work hours and then visits the hospital after work or on weekends when the SLP may not be working. School-based SLPs' interactions with caregivers may be more limited to strategic meetings or the use of written notes or communication platforms. A study examining how different SLPs work with caregivers and their burnout/stress may provide more insights into burnout prevention. The inquiry now shifts from what contributes to burnout and stress to examining whether SLPs who work more frequently with caregivers of patients have lower work-related stress or burnout levels.

Personality and Identity

The personality variable has been discussed as a possible factor in stress and burnout, assuming that specific individuals have personality types or intrinsic qualities that make them more susceptible to burnout and stress. Lu et al. (2022) conducted a study with over 500 nurses and noted that personality types indicated different stress levels. The results showed that participants with a type A personality and high neuroticism had higher occupational stress and burnout, as well as lower job satisfaction. Mijakoski et al. (2022) reviewed the literature from 1990–2021 for studies measuring burnout as a variable in longitudinal studies. 61 determinants were identified through qualitative analysis, but precisely seven were noted as detrimental. These factors included exhaustion, job satisfaction, work climate, self-efficacy, neuroticism, perception of others being exhausted, and classroom issues.

Work identity and feelings toward work may impact burnout and stress. Ding and Xie (2021) interviewed 650 schoolteachers regarding burnout, professional identity, and psychological empowerment. The results indicated that professional identity and psychological empowerment were negatively associated with job burnout and that psychological empowerment

was positively associated with professional identity. Still, professional identity was found to mediate work burnout partially. Zhai et al. (2022) suggested that having an affective commitment to your job can be the mediating factor when faced with work stress or adversity. Seeing one's work as successful and observing positive client outcomes exemplify how affective commitment can be increased as part of a work identity. Client outcomes are often more successful when caregivers are involved in treatment (McKenzie & Joy, 2020). The thought process is that if professional identity can mediate work burnout, professional identity, and affective commitment are connected and that client success, which is often dependent on caregiver involvement, can support affective commitment, suggesting an existing gap in the literature regarding caregiver involvement and burnout. The literature points to factors outside caseload, paperwork, and salary that may lead to alternative answers to decreasing stress and burnout. Having an affective commitment and connection to professional work may improve symptoms of burnout, but the facet of caregivers interaction has not been directly studied. in

Additional Variables

Additional variables in the existing research related to gender and COVID-19 can assist in broadening the understanding of burnout, SLPs' work duties, and SLP job satisfaction. Gender differences have been explored as a differentiating variable related to job satisfaction and burnout. The field of speech-language pathology constitutes upwards of 90% female (Lindsay & Kolne, 2022). Azios and Bellon-Harn (2021) noted that males in speech-language pathology indicated that barriers to working in a female-dominated field did not negatively impact their job satisfaction but were motivators for job performance and increased their job satisfaction. Gender may be a necessary demographic when considering job satisfaction and burnout and was included as a demographic in the current study.

When examining the allied health and education fields, it would be remiss not to investigate and discuss the impact the COVID-19 pandemic has had on job stress and burnout. Sylvan et al. (2020) examined qualitative and quantitative responses of 280 school-based SLPs during the COVID-19 pandemic regarding their workload changes, job satisfaction, stress levels, and personal challenges. The participants reported heightened levels of stress. Stress levels may have permanently changed in the school-based SLP setting due to COVID-19 impact, rendering earlier research less meaningful in a post-COVID-19 world.

Summary

Workload, paperwork demands, and compensation have been documented as variables that negatively impact job satisfaction and burnout for SLPs. However, these factors have been the research focus for 20 years, with slight global improvement. Being a field of critical shortage and the high need for services highlights the impetus for seeking alternative methods to support SLPs. Caregiver interactions are crucial to the therapeutic process and to provide the SLP with opportunities for improving outcomes. Do SLPs with more frequent access to caregiver interactions have lower levels of burnout? Investigating this line of inquiry may provide additional insights into job duties that decrease burnout. If access to caregiver interaction decreases burnout for SLPs, removing barriers to caregiver interactions in various SLP settings would be not only helpful to client outcomes but also to the retention of professionals in a field desperate for service providers.

CHAPTER THREE: METHODS

Overview

This study encompassed an investigation of the relationship between SLPs-caregiver contact hours and SLP-reported burnout. Chapter Three is divided into the following sections: design, research questions, participants and setting, instrumentation, procedures, data analysis, and ethical considerations. The goal was to collect information to answer the research questions and inform recommendations for future studies, as well as implications regarding support for SLP burnout and ways to improve retention in the field.

Design

This quantitative study was a quasi-experimental correlational design using a survey to collect data. This study focused on the relationship between caregiver contact hours and level of burnout ($H_{1)}$ and compared the number of caregiver contact hours to burnout levels ($H_{2).}$ Quantitative research was chosen because deductive reasoning from data collection was required to test both hypotheses, as Wiley (2014) highlighted. This approach supports the purpose of this quantitative survey study, which is to examine the relationship between caregiver contact hours and SLP burnout. Qualitative research was not chosen because the focus was not to understand or gain information through thoughts, feelings, or experiences (see Heppner et al., 2016).

Quasi-experimental designs are useful when subject randomization and the use of control groups are not feasible (Portney, 2020). This design methodology is often described as being between a descriptive method and a proper experimental method. Quasi-experimental designs can involve different and non-equivalent subject groups with different treatment conditions (Heppner et al., 2016). The study included 162 participant SLPs from various work settings and with varying demographic backgrounds.

Quasi-experimental methods do not have as strong of internal validity as experimental methods; they are used when experimental methods are not an option and create an opportunity for data to be examined within the limitation of a natural setting (Portney, 2020). This study involved no control group, random selection of subjects, or active manipulation of variables (Thyer, 2012), resulting in a quasi-experimental process for data analysis. As demonstrated in the literature review, research regarding the positive associations of caregiver contact hours with burnout has not been extensively studied. This gap in the literature suggests that gathering data and determining relationships would lend insights into the research questions for this study. It also supports the rationale for not implementing an experimental design where variables are manipulated, hence the choice of quasi-experimental correlational design as the methodology for this study. This study did not focus on all values of the independent variable of caregiver contact hours (e.g., quality, type, etc.). Still, it only addressed the number of weekly caregiver contact hours the participants reported. This examination of variables is a descriptor of a quasi-experimental design rather than a correlation-only design where all independent variable values would be studied (M. Melvin & Charles, 2004).

The researcher distributed the survey following Institutional Research Board (IRB) approval by posting it on the American Speech-Language-Hearing Association message board website and professional organization message boards, sending it to SLPs across the country using a listserv and social media, and emailing it online using Qualtrics. Data analysis involved quantitative methods. The survey was voluntary and anonymous. Participants were required to be SLPs, speech-language pathology assistants, or Bachelor-level speech-language therapists. No formal controls were used to prevent participation in the survey.

Research Questions

RQ 1: What is the relationship between caregiver contact hours and speech-language pathologist burnout?

RQ 2: Do speech-language pathologists with more caregiver contact hours have lower levels of burnout? The independent variable for this study was contact hours with caregivers. The dependent variable was self-reported work-related burnout.

Hypothesis

Hypothesis 1. Speech-language pathologists with more caregiver contact hours have statistically significantly lower burnout levels than SLPs with fewer caregiver contact hours, as measured by survey responses that include three burnout predictor items from the Maslach Burnout Inventory.

Hypothesis 2. Null. Speech-language pathologists with more caregiver contact hours will not have significantly lower burnout levels than SLPs with fewer caregiver contact hours, as measured by survey responses that include three burnout predictor items from the Maslach Burnout Inventory.

Setting

The setting for this study was virtual, using an electronic survey. The rationale for choosing the survey approach is that it increased recruiting opportunities and did not limit participants to a particular region of the United States. This approach ensured a larger, more varied sample size than an in-person questionnaire (see Portney, 2020). The researcher sought to obtain self-reported information, which was feasible using a survey and allowed anonymity, lending to more honest self-reporting (Heppner et al., 2016). Although convenience should never be the rationale for any design methodology choice,

the practicality of using a survey allowed the collection of data from a broad sample in an efficacious manner in this study.

Self-reported survey questionnaires are at risk for potential bias or inaccuracies (Soland et al., 2022), but they are considered relatively valid methods for collecting data (Portney, 2020). Recall bias can occur when participants are asked about past events that may or may not be upsetting or sensitive (Portney, 2020). However, surveys are appropriate for collecting data on self-reported variables such as perceptions and attitudes (Litwin, 1995). The aim of this study included examining demographics and self-reported levels of burnout.

Participants

The sample pool of participants for this study included licensed SLPs, licensed speech-language pathology assistants, or bachelor's level speech therapists. According to the Bureau of Labor Statistics (2022), this population is about 187,000 individuals. Nonprobability convenience sampling was used to create a sample pool. Convenience sampling often has significant volunteer bias because it relies on the willingness of the participant to volunteer to complete the survey (Heppner et al., 2016). This aspect both encourages and limits different individuals from participating. Ensuring the results are confidential and anonymous helps decrease volunteer bias threats (Portney, 2020). The administration of the survey instrumentation included these concerns to attempt to mitigate that bias.

Participants for this survey were recruited nationwide and not limited to one region of the country. They were also not limited to a particular employment setting, but the survey included questions regarding work settings. The information collected through this survey

included SLP caregiver contact hours and self-reported burnout levels. The participant group was not gender specific.

An a priori power analysis was used to determine the sample size of participants using G*Power version 2.1.97 (Faul et al., 2007). The effect size was 0.15, which is considered a medium effect size using Cohen's criteria (Bosco et al., 2015; Warner, 2020). With a significance criterion of $\alpha = .05$ and power = .95, the minimum sample size needed with this effect size was $N = 74$. This study's sample size was projected to be a minimum of 74 participants to test the hypotheses, and 162 complete responses were received.

Instrumentation

Instrumentation included a survey comprising 19 questions and took each participant 10–15 min to complete. This questionnaire contained novel, researcher-created queries and questions from a published measure. The survey consisted of 10 demographic questions and nine questions from the Abbreviated- Maslach Burnout Inventory (aMBI) (Maslach et al., 1997). The ten demographic questions were closed-ended and static, allowing single or multiple responses as appropriate. Threats to face validity and content validity were addressed by piloting the ten demographic questions to a group of three to five SLPs. Feedback was used to make appropriate adjustments to address face validity and ensure the survey questions measured the intended demographics (see Bolarinwa, 2015).

The Abbreviated Maslach Burnout Inventory (aMBI; Maslach et al., 1997) was used for nine questions on the survey. The aMBI is one of several versions of the Maslach Burnout Inventory- Human Services Survey (MBI-HSS; Maslach et al., 1997) and can be used as a predictor for burnout using the short form (Kavan & Powell, 2021; Maslach & Jackson, 1981). The MBI-HSS is considered one of the most reliable and valid measures for examining burnout

(Dyrbye et al., 2022). Construct validity for some populations (e.g., physicians, teachers, and nurses) is strong, but it has not been normed on SLPs (Dyrbye et al., 2022). Estabrooks et al. (2012) suggested that measures used to support employees should be psychometrically strong and feasible in comparison to time and financial resources as well as broadly applicable. The aMBI is feasible and broadly applicable because it is an abbreviated form using less time resources and appropriate for various health and education professionals. The aMBI is free to use and administer via pen and paper or electronic survey for research purposes.

Riley et al. (2018) conducted a study using the aMBI, and the results indicated that the short version was as effective at identifying service providers who were at risk for burnout or experiencing burnout as the long-form version. They compared scores on the full-length subscale assessment and the three-item measures using a mixed-effects regression methodology. The results indicated that aMBI had no difference in predicting burnout compared to the full-length assessment with $p > .0001$. This probability value suggests that the aMBI is a valid and reliable proxy to the MBI-HSS (Riley et al., 2018) with no effect or difference in either measure when predicting burnout. Their findings indicated that the three-item measure was valid and highly correlated with original subscales. There was also high convergence and discriminant validity with the three-item measure. The aMBI uses less resources (e.g., time and financial) by the administrator of the measure and the individual completing it.

Lim et al. (2019) conducted a study comparing the aMBI and MBI-HSS in predicting anesthesiologist burnout. They found a Type 1 error in that the aMBI overestimated burnout in their participant population. However, they used a four-item, 12-question format of the aMBI, and the sample size was small, at 58 participants, and a different profession from the

Riley et al. (2018) study, consisting of 473 medical practitioners. The Riley et al. study was conducted with participants from rural upstate New York, whereas Lim et al. used anesthesiology residents from three hospitals in Singapore. Because of cultural differences, workload, and job duty expectations between these two studies, comparing them for the efficacy of the aMBI should be cautioned. Although they concluded the MBI-HSS was more accurate in reporting burnout, these variations and limitations may have influenced results.

The aMBI uses a Likert scale, which is unidimensional and ipsative. Although Likert scales are easy for users to understand, there are limitations to using them in survey methodology. The nature of the scale itself fails to meet psychometric assumptions that are considered a requirement for most measures (Baron, 1996), which results in a weakness where subjectivity can skew the results because there is no way to define the difference between "somewhat agree" and "agree" between two different participants. It can also result in forced choices that inflate internal consistency (Baron, 1996). Although this outcome is prohibitive, the MBI-HSS was standardized as a Likert scale examining three subscale areas of burnout: emotional exhaustion, depersonalization, and reduced personal accomplishment. The total assessment version has 22 items, whereas the abbreviated aMBI has only three items (nine questions). The full version is estimated to take 10–15 min to complete. Scoring results in interval ranges for each of the three subscales, including low burnout, moderate burnout, and high burnout.

The aMBI was an appropriate choice for this study and was expected to be statistically valid because it was derived from the MBI-HSS. Test reliability is vital to provide information about how reliable the test is across administration factors and over time. The MBI-HSS reliability was determined to be consistent over 3 months to 1 year, with

coefficients ranging from .50 to .82 (Maslach & Leiter, 2017). Convergent validity indicates if a test shows similar results as other tests measuring the same construct. The MBI-HSS indicated that all three subscales were related to symptoms associated with burnout and correlated to job characteristics associated with burnout on other assessments measuring similar constructs (Maslach & Leiter, 2017). Convergent validity revealed that the self-reported measures were similar to what a spouse or coworker reported during test development. Discriminant validity helps determine whether a test's constructs are similarly related to other constructs. Job satisfaction, work ideals, and depression were examined during test construction and determined to be separate constructs. The survey questions are shown in Appendix A.

Procedures

This study began with the researcher emailing the online advertisement to SLPs on a national and professional organization listserv, using Qualtrics recruiting features, and posting it on professional message boards. The survey was uploaded into Qualtrics, pilot-tested with a small group of SLPs, and adjusted according to recommendations. The survey remained open for two weeks.

Data Analysis

Upon the closure of the survey after two weeks, the analysis of the quantitative data collected ensued. The survey assessed the self-reported burnout of SLPs, and related personal demographics and their caregiver interaction contact hours. The analysis method used was descriptive statistics, including the mean, median, mode, and standard deviation, to describe measures of central tendency. A multiple linear regression analysis was used to describe the relationship between data on burnout and caregiver contact hours. A multiple linear regression

analysis was an appropriate statistical analysis for this study because this approach allowed not only the determination of the strength of the relationship between variables but also the predictive measures between the independent variable of caregiver contact hours and the dependent variable of burnout (see Warner, 2021). It also allowed the examination of multiple explanatory variables that could be due to an epiphenomenal association or spurious results as a byproduct of mediating factors, as Hayes (2022) noted. For example, the three burnout subscales on the aMBI may have moderating factors related to one of the measured subscales but not the other, and subscales may moderate one another. Other variables could further moderate results on one subscale but not on another. Multiple linear regressions typically require a sample size of larger than 10 per variable (Warner, 2020), and this study had a sample size larger than 74, as determined by a power analysis. Assumptions of a multiple linear regression included a multivariate normality, which measures of central tendency can describe. Having no multicollinearity is also an assumption of a multiple linear regression explored in testing this study's hypothesis and null hypothesis. There is no autocorrelation between the variables, which is a required assumption of the statistical approach chosen and is tested using Variance Inflation Factor values (Hayes, 2022). Another type of regression analysis is homoscedasticity, or any constant disturbance among variables (Warner, 2021), supporting normal distribution. Data analysis aimed to confirm these assumptions using scatterplots, histograms, and boxplots to assist in visual data interpretation that shows a linear or curvilinear relationship (see Hayes, 2022).

Ethical Considerations

The ethical guidelines of the Belmont Report (Office for Human Research Protections, 2016) and Liberty University’s IRB were followed. Although there were no identifiable risks for

participating in this study, the researcher notified all participants before taking the survey that the survey was optional and that there were no known risks. Maslach and Leiter (2017) suggested that participants must not be sensitized to burnout and that the questionnaire should not have the word “burnout” on the labeling, consent, or directions. The language indicated that the survey aimed to examine a participant’s feelings toward work as an SLP.

Data breach risks were avoided using Qualtrics, an online survey tool for collecting data electronically. Qualtrics uses the security standards of a high-end firewall, application penetration tests by an independent third party, quick failover points, redundant hardware, and daily backup. Restricted password access was used, and all survey data were stored in Qualtrics. The passwords used were accessible to the researcher only. Qualtrics uses Transport Layer Security encryption (also known as HTTPS) for all transmitted data and maintains SOC 2 Type II Certification for security, availability, and confidentiality and ISO 27001, 27017, and 27018 Certifications. It is FedRamp Authorized. FedRAMP is the standard of U.S. government security compliance. The researcher’s computer is also password-protected, has firewall security software, and was only used on a private, password-protected server. The research data collected were maintained on the Qualtrics server and the researcher’s computer with several layers of password protection. Additionally, no personal identifying information was obtained from the participants. All participation was anonymous and voluntary.

CHAPTER FOUR: FINDINGS

Overview

This chapter contains the results of this study to answer the research questions regarding the relationship between caregiver contact hours and SLP burnout. The independent variable for this study was the participants self-reported contact hours with caregivers. The dependent variable was self-reported burnout levels. This chapter includes a summary of the entire data set from the survey participants and descriptive statistics of demographic variables and study variables. Additionally, multiple linear regression results are discussed to determine the relationship between caregiver contact hours and burnout.

Descriptive Statistics

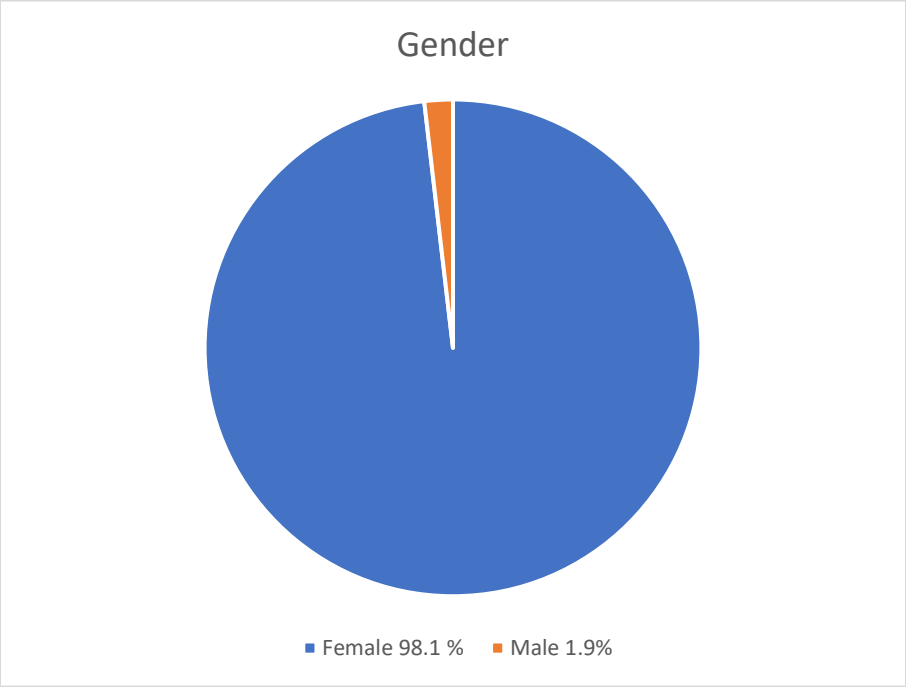
In total, 174 responses to this study were received. Twelve response sets were deleted because they were incomplete and did not answer all the survey questions. A multiple linear regression analysis was used to analyze the relationship between data on burnout and caregiver contact hours. After cleaning the data field, the data collection satisfied the minimum sample size of $N = 74$ as determined using an a priori power analysis with 162 responses. Additionally, categorical variables were coded using dummy coding to convert to a series of dichotomous or binary variables when appropriate. This was done with the exception of the variable of work setting due to the 14 different categories indicated by participants.

Descriptive statistics were used to examine participant data including years of experience, education, work setting, and gender. The results shown in Figure 1 indicated that 98.1% (N=162) of respondents were female and 1% (N=162) were male. This gender proportion is only slightly disparate from ASHA's 2022 workforce data, which showed that 95.6% of ASHA members and affiliates are female (ASHA, 2022a). This is reflective of the markedly higher rate

of females who work in the field of speech-language pathology. Lindsay and Kolne (2022) noted that white female professionals overwhelmingly dominate the field of speech-language pathology. Therefore, the survey results do not impact the study results and match the national demographic of working professionals.

Figure 1

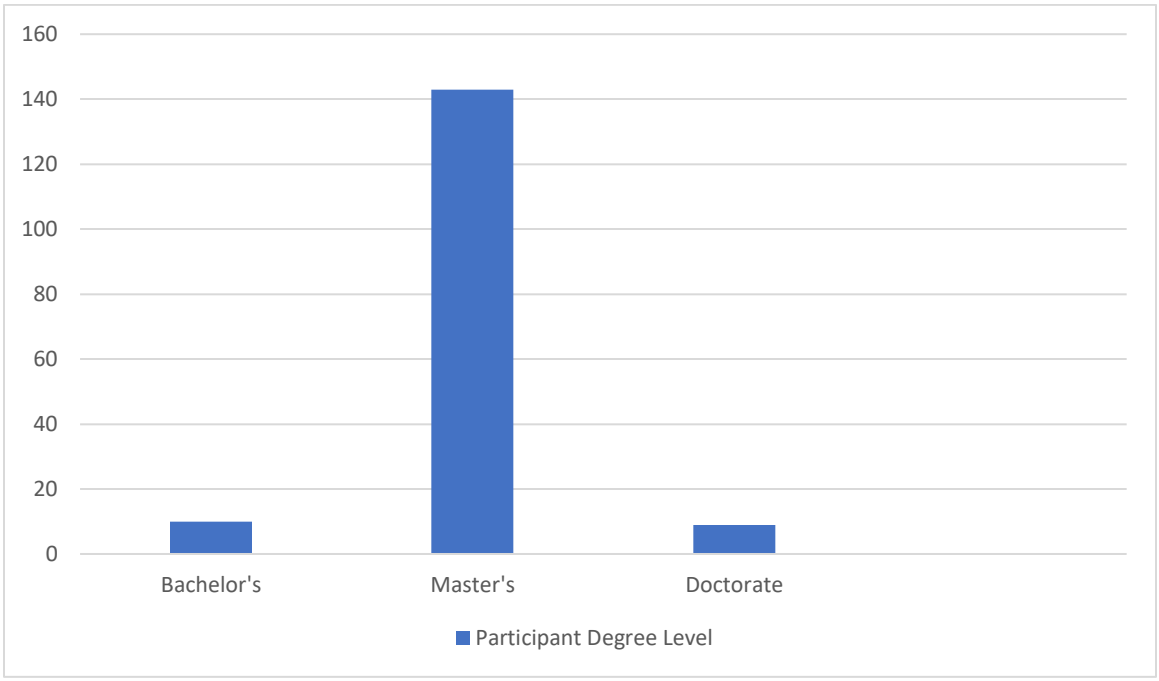
Descriptive Statistics- Gender



Educational level data indicated that 88.3% (N=162) of the participants had a Master's degree as their highest professional degree (see Figure 2). Y-axis shows the number of participants in Figure 2. This result also represents the vast majority of practicing clinicians holding a Master's as their highest degree (ASHA, 2022a). This qualification is in part due to state licensing departments requiring a minimum of a Master's level to work with both pediatric and adult clients. Some states allow Bachelor's level clinicians to work with pediatric clients to help alleviate the national shortage of providers.

Figure 2

Descriptive Statistics- Education

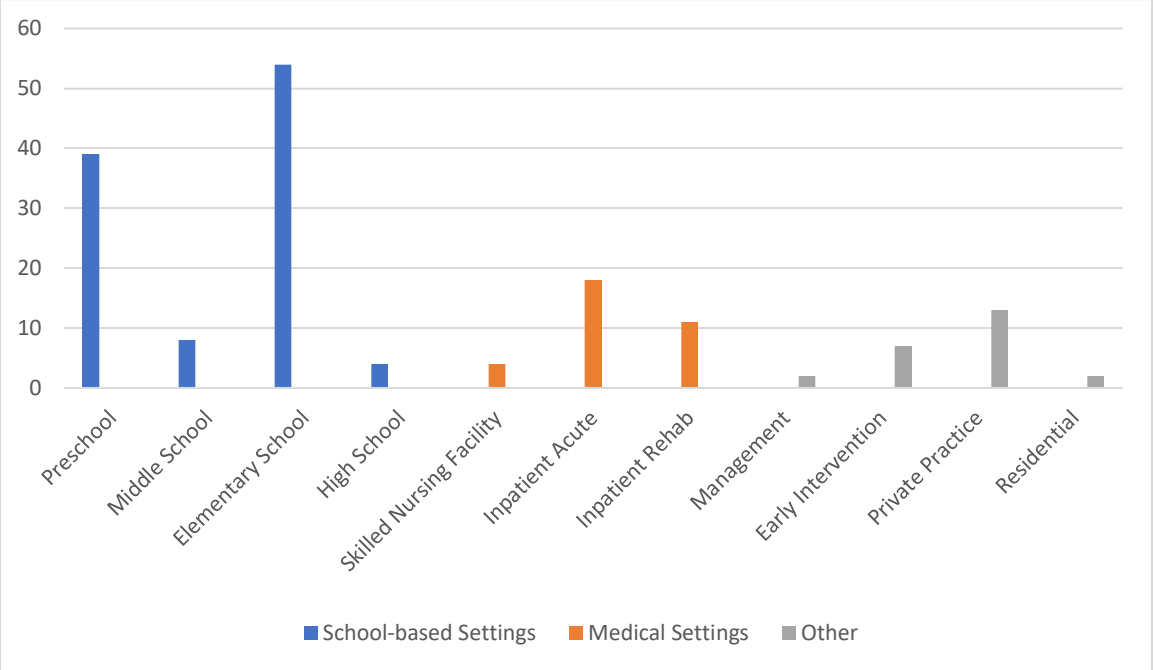


Note. Mean = 1.99; Std. Dev. = 3.43; *N* = 162.

Participant demographics included varied types of work settings. The total combination of school-based work settings, including preschool, elementary school, middle school, and high school respondents, was 64.8% (N=162). The rest of the sample comprised the medical settings (i.e., inpatient rehabilitation, inpatient acute, and skilled nursing facilities) and other settings (i.e., management, private practice, residential, and early intervention). ASHA (2022a) indicated that 53.5% of ASHA members worked in school-based settings. This sample contained 11.3% more school-based SLPs than the overall working population. The frequency distribution of this variable was not equally distributed (see Figure 3). The Y-axis shows the number of participants.

Figure 3

Descriptive Statistics- Work Setting

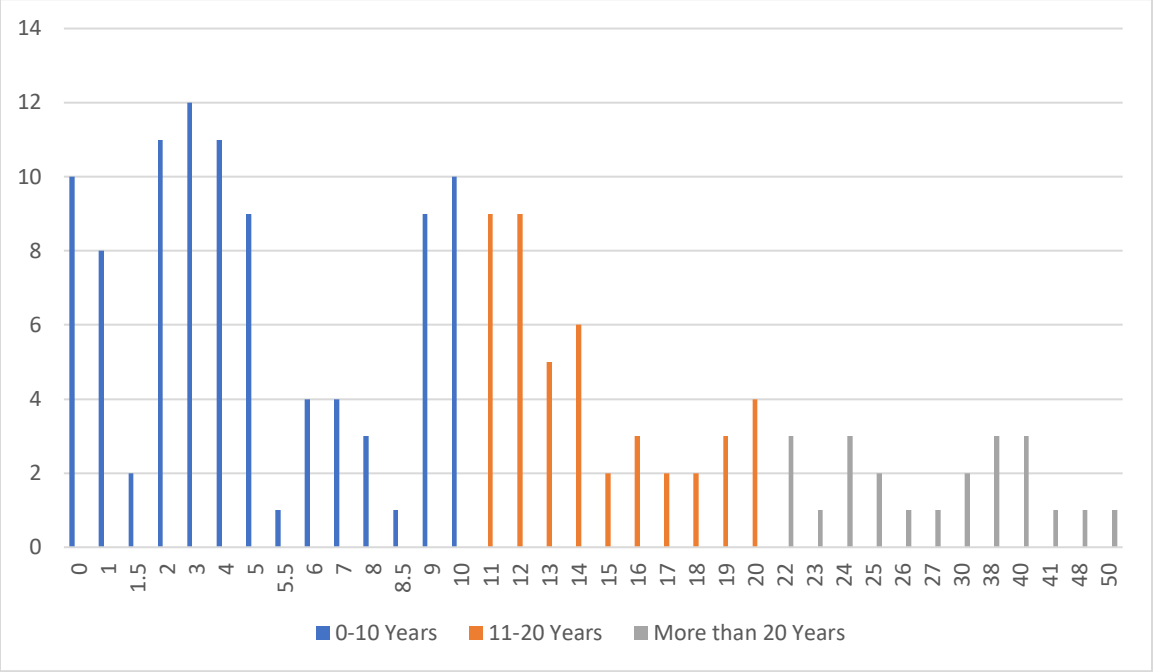


Note. Mean = 5.29; Std. Dev. = 3.086; *N* = 162.

The distribution of years of experience in the field varied widely among the participant sample, indicating a rich, variable participant population. 113 participants (N=162) had been in the field for 12 years or less (see Figure 4). The y-axis represents the number of participants.

Figure 4

Years of Experience



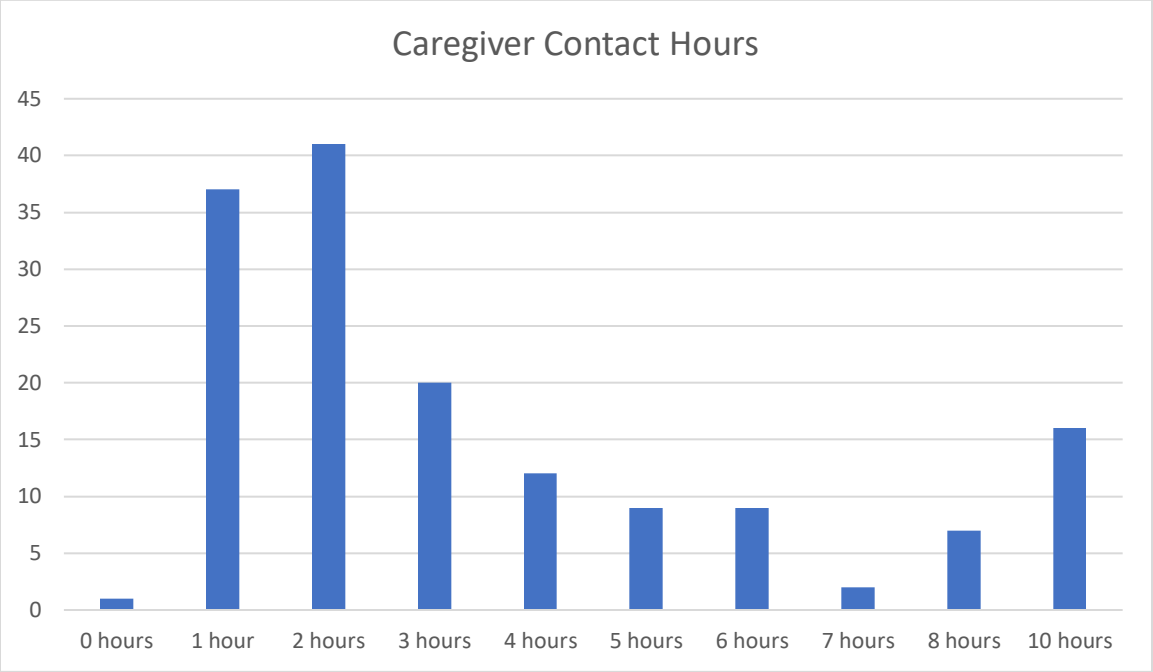
Note. Mean = 10.91; Std. Dev. = 10.267; *N* = 162.

The data provided by participants regarding years of experience indicated a right-skewed histogram, which suggests that the data on the left side of the histogram are greater than the median. A higher number of respondents had been in the field for 12 years or less. This histogram's shape and data pattern impact the probability and future application and interpretation of the data.

It should be noted that not all practicing clinicians are members of ASHA, but a very small group of professionals, less than 2%, comprise the membership (ASHA, 2022b). This study did not focus on the respondents' ASHA membership. Overall, the data collected from participants matched national trends in this professional population related to gender.

Figure 5

Caregiver Contact Hours



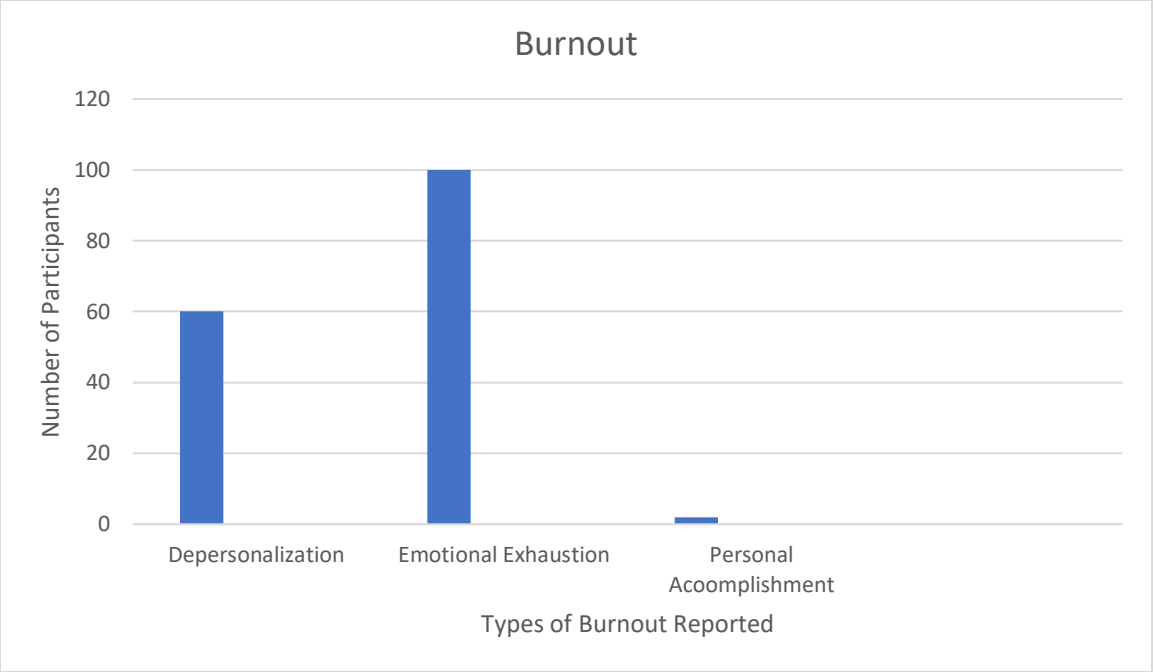
Note. Mean = 3.43; Std. Dev. = 2.906; *N* = 162; Y Axis= Number of Participants; X Axis Number of Contact Hours.

In the histogram in Figure 5, the y-axis represents the number of participants, and the x-axis represents the number of caregiver contact hours. This figure depicts a bimodal distribution, which suggests two modes. This means that two unimodal distributions may have their outliers, both lower and upper. In this case, the frequency of contact hours in relationship to burnout is highest at 1 hour (22.8%) (N=162), 2 hours (25.3%) (N=162), and then a right-skewed slope with a bimodal peak at 10 hours (9.9%) (N=162).

Emotional exhaustion, a form of burnout, was self-reported by participants (N=162) as determined by the aMBI of 62% (see Figure 6). Depersonalization also showed a large response, with very little personal accomplishment reported by participants. Personal accomplishment is the feeling of success, competence, and positive performance that can mediate feelings of burnout (Maslach, 1988).

Figure 6

Burnout



Results

The results of the multiple linear regression in Table 1 indicate an *R* of .266, suggesting that the correlation coefficient is closer to 0 than 1. A determined *R* of 1 would indicate the strong linear relationship between the independent variables, or predictors, and the dependent variable of burnout. The correlation coefficient for this study was low. The coefficient of determination (r^2) = .071, suggesting a low proportion of variance, meaning the response variable of burnout can only be weakly explained by the predictor variables. According to this model, less than 1% of burnout can be attributed to caregiver contact hours and other independent variables. Adjusted r^2 accounts for multiple predictor variables and is always lower than r^2. The data set rendered an adjusted r^2 of .047, corroborating the pattern of a number lower than r^2.

Table 1

Model Summary

R	*R* Square	Adjusted *R* Square	Standard Error of Estimate
.266[a]	.071	.047	.0471

Note. a. Predictors: (Constant), Method of Caregiver Contact, Years of Experience, Caregiver Contact Hours, Education; b. Dependent Variable: Burnout.

Additional data in Table 2 indicated an *F*-ratio of higher than 1.0, which suggests that the between-group differences are statistically significant. Therefore, the null hypothesis is rejected that speech-language pathologists with more caregiver contact hours will not have significantly lower burnout levels than SLPs with fewer caregiver contact hours, as measured by survey responses that include three burnout predictor items from the Maslach Burnout Inventory. Five degrees of freedom were included in the calculation related to the dependent variable. Significance was $p < 0.05$, providing further evidence to reject the null hypothesis because it is statistically improbable that the data came from populations with the same mean. This table shows a slight positive correlation.

Table 2

ANOVAa

	Sum of Squares	df	Mean Square	F	Sig.
Regression	2.613	4	.653	2.939	.002[b]
Residual	34.230	154	.222		
Total	36.843	158			

Note. a. Dependent Variable: Burnout; b. Dependent Variable: Burnout Predictors: (Constant), Method of Caregiver Contact, Years of Experience, Caregiver Contact Hours, Education.

Although the unstandardized coefficients in Table 3 are helpful in analysis and training, the regression model and the standardized coefficients allow the comparison of the dependent variables in this study with different values. When analyzing the standardized coefficients, a t-

value of -2 or greater than +2 is acceptable, following the rule that the higher the t-value, the greater the confidence that the coefficient is a predictor. For example, *t*-values for the variables of years of experience (-2.556), and education (+3.078) show high levels of confidence that those variables are predictors of burnout. In contrast, caregiver contact hours have a low confidence *t*-value of .098.

Table 3

Coefficients

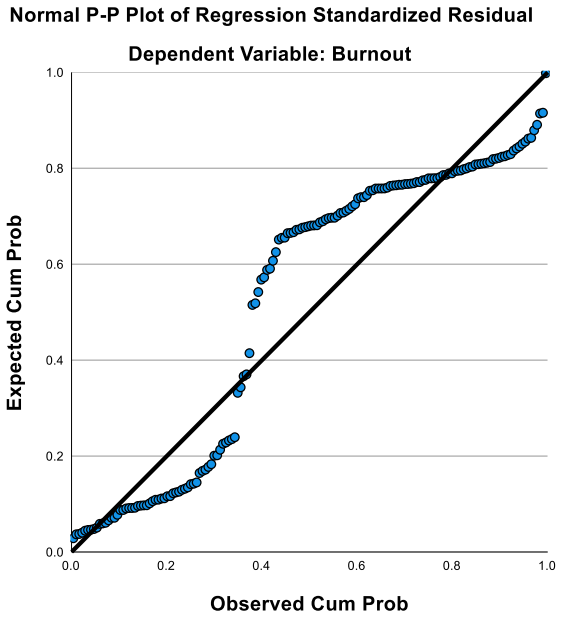
	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	*T*	Sig.
(Constant)	.365	.130		2.797	.006
Years of Experience	-.010	.004	-.221	-2.556	0.12
Caregiver Contact Hours	.001	.013	.08	.098	.922
Method of Caregiver Contact	.002	.019	.009	.113	.910
Education Level	.376	.122	.270	3.078	.002

Note. a. Dependent Variable: Burnout.

A P-P plot, Figure 7, showed that the standardized residuals contain outliers related to the dependent variable of burnout. The data set does not meet the normal distribution, as the residuals are not approximately linear.

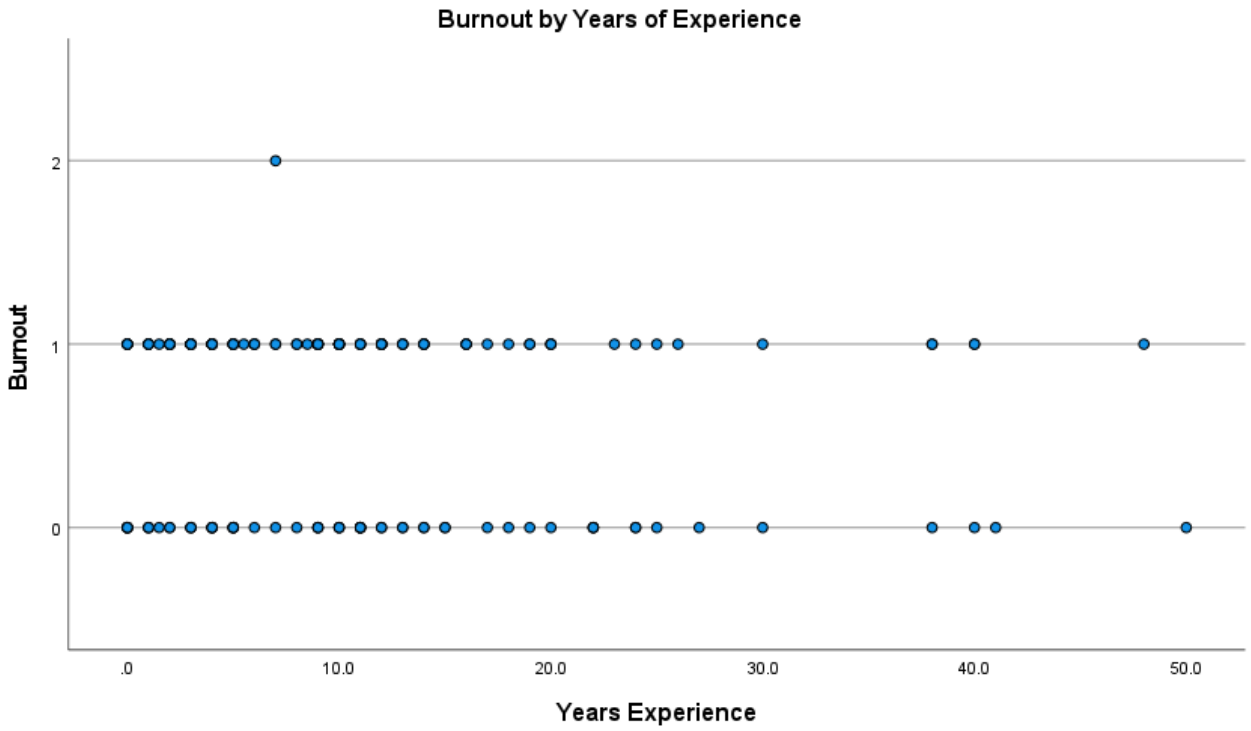
Figure 7

Residuals Statistics



The scatterplot in Figure 8 examines the number of participants experiencing burnout (0= depersonalization; 1 = emotional exhaustion; 3 = personal accomplishment) related to their years of experience. Participants with more years of experience were less likely to report symptoms of burnout.

Figure 8



Summary

In this study, 162 SLPs, speech-language pathology assistants, or bachelor's level speech therapists completed a survey structured to understand how caregiver contact hours interact with professional burnout. The participants were 98% female (N=162), with 88% (N=162) having a Master's degree. All participants had either a Bachelor's, Master's, or doctorate. Consistent with theories on burnout and stress, participants were asked questions from the aMBI to ascertain their levels of burnout. Demographic survey questions targeted participant background information such as work setting, hours of caregiver contact per week, years of experience, and other factors. The data showed that the number of caregiver contact hours an SLP engaged in did not mediate burnout. Instead, some data indicated that years of experience, work setting, and

education are more likely to be predictors of burnout than caregiver contact hours. Although caregiver contact hours are necessary for therapeutic care, they do not appear to be a factor that decreases burnout when increased. In this study, 62% (N=162) of the participants reported symptoms of burnout, highlighting a concerning level of mental, physical, and emotional exhaustion among clinicians.

CHAPTER FIVE: CONCLUSIONS

Overview

The purpose of this study was to determine the relationship between SLPs' caregiver contact hours and SLP-reported burnout in an attempt to identify alternative ways to address SLP burnout outside of traditional solution discussions related to caseload size and compensation. This chapter discusses the study's findings regarding overarching themes in the literature and their implications. It concludes with an examination of the limitations of this study, a focus on future research, and a brief overall summary.

Discussion

Speech-language pathologists are already in critical shortage, and maintaining professionals as the aging population grows is necessary for successful client outcomes. Although in the literature, SLPs have identified multiple areas (e.g., compensation, caseload, and workload) that contribute to burnout, more data is needed on what mediates or can change burnout for these professionals. Little data exists to support understanding any relationship that may create a change in burnout. The discussion around the same themes of dissatisfaction for providers in the field has spanned many decades with no action or change being taken. The following research questions precipitated this study:

RQ 1: What is the relationship between caregiver contact hours and speech-language pathologist burnout?

RQ 2: Do speech-language pathologists with more caregiver contact hours have lower levels of burnout?

Rather than continue to discuss and explore factors that had been exhaustively identified but have yet to be addressed, this study aimed to examine alternative impacts on burnout that

could be used to reduce SLPs' feelings of burnout in the work setting. Caregiver interaction is a foundational therapy strategy integrated into nearly all therapy plans (Clark-Whitney et al., 2022). Therefore, these interactions were a naturally occurring opportunity to be studied and examined as a possible mediation of burnout. If increased caregiver interactions decreased SLP burnout, this would be a solution or support that an SLP could implement without more considerable changes in funding, federal or state legislation to improve compensation, or decrease caseload or workload. Instead, an SLP could alter their daily or weekly therapy schedule to include more caregiver contact and decrease their burnout. This strategy could be implemented by the individual versus the system and be easily accessible to the working individual clinician.

The following hypotheses were formulated to structure the study:

Hypothesis 1. Speech-language pathologists with more caregiver contact hours have statistically significantly lower burnout levels than SLPs with fewer caregiver contact hours, as measured by survey responses that include three burnout predictor items from the Maslach Burnout Inventory.

In Table 3, the *t*-values for the variables of years of experience (-2.556), and education (+3.078) indicate high levels of confidence that those variables are predictors of burnout. In contrast, caregiver contact hours have a low confidence *t*-value of .098. This regression model suggests that Hypothesis 1 was not supported. Assumptions related to normality and residuals showed a skewed p-p plot with possible outliers, indicating issues with the study design.

Hypothesis 2. Null. Speech-language pathologists with more caregiver contact hours will not have significantly lower burnout levels than SLPs with fewer caregiver contact hours, as measured by survey responses that include three burnout predictor items from the Maslach Burnout Inventory.

This null hypothesis suggested that there was no relationship between caregiver contact hours. It also indicates that there is not only a bimodal peek but that SLPs with a higher number of caregiver contact hours do not have lower levels of burnout. An F ratio above 1.0 indicates that the between-group differences are statistically significant. Therefore, the null hypothesis is rejected. However, the *t*-value for caregiver contact hours was weak at .098.

Theoretical models of stress were a foundational premise of this study. The demand-control model of examining stress suggests that employees having more control over their workplace can impact stress levels (Karasek, 1979; Ursin & Eriksen, 2010). This discussion of SLPs' limited control over making choices in their workday due to systematic processes, such as billing procedures and legislation, was discussed early in this paper. This lack of autonomy can have a negative impact on well-being (Johnson et al., 1996). Following McClenahan et al.'s (2007) recommendation to examine the demand-control model related to specific professions, this study endeavored to determine more closely the relationship between SLPs caregiver interactions and flexing caregiver contact hours, a variable they can control in their practice. Results did not suggest a relationship between burnout and caregiver contact hours.

The effort-reward imbalance model of occupational health focuses on the intrinsic or extrinsic rewards linked to stress, burnout, and well-being (Siegrist, 2001; Siegrist, 2005). The limited control that SLPs have over the variables that impact stress and burnout have been discussed in Chapter Two of this paper. This study examined one of the few variables that SLPs have control over, interacting with caregivers. Morgan et al. (2013) noted that these rewards are powerful in predicting job satisfaction. The reward of job satisfaction is closely linked with limited feelings of burnout and intense feelings of positivity, altruism, and hope (Hughes & Marcantonio, 1991). The data from this study sought to prove a link between increased

caregiver hours, increased intrinsic rewards, and decreased burnout. This appeared to be a particularly probable link because certain professions naturally entice individuals drawn to the intrinsic, often intangible, rewards that can positively impact feelings of burnout (Van den Broeck et al., 2021). Specifically, Cunningham et al. (2022) noted that allied health professionals who are satisfied with their jobs have control and autonomy over their role in client outcomes.

Maslach's (1998) approach to burnout was a foundational concept for this study. Maslach suggested that burnout is a direct response to stress at work, characterized by depersonalization, emotional exhaustion, and personal accomplishment. Depersonalization is a loss of idealism and disconnect with colleagues, clients, and others in the work environment. Emotional exhaustion is feeling emotionally drained and not having the emotional resources to address situations and interactions in the workplace. Personal accomplishment is the competence feeling of success, competence, competence, and positive performance that can mediate feelings of burnout. In Figure 6, 62% of participants (N=162) reported emotional exhaustion related to their employment as an SLP. 38% (N=162) of participants reported depersonalization and less 1% reported feelings of personal accomplishment. Blood et al. (2002) conducted a regression analysis to analyze the responses of over 1,600 school-based SLPs who responded to a survey. The results indicated that SLPs showed increased job satisfaction with an increase in age and a decrease in job satisfaction with an increased caseload and increased paperwork. Data from this study did not factor the participant's age but did examine years of experience. Figure 8 demonstrates how reporting of symptoms of burnout decreased as years of experience increased, corroborating Blood et al.'s 2002 study. These results create questions about professional identity and growth that were not included in this paper. Exploring if professional identity, which partially mitigates burnout according to the study by Blood and colleagues (2002), over

time related to age and experience would be a future area of study that may lend better insight into the prevention of burnout.

Intrinsic rewards and job satisfaction are linked to interacting with caregivers as a premise for this study. It was established in the review of literature that extrinsic rewards for SLPs are often fixed and that intrinsic rewards are as powerful in predicting job satisfaction as extrinsic rewards (Morgan et al., 2013). Hughes & Marcantonio (1991) reported that the intangible rewards of allied health-related work can be psychological and provide workers with feelings of positivity, altruism, and hope that can balance out the absence of extrinsic rewards. Results from this study (Table 3) showed that caregiver interactions, which often create intrinsic rewards, did influence burnout factors. While caregiver interaction continues to be important to the therapeutic model, it does not appear to mitigate burnout in the same manner as the extrinsic rewards of compensation or the general workload variables related to caseload size. This may lend insight into why the profession has reported the same stressors for over 20 years, as well as provide solidified importance in looking at the legislation and larger systematic issues that have not been successfully addressed.

Implications

Although the findings of this study did not lead to the discovery of a robust, accessible solution to burnout using caregiver contact hours, they create space and conversation for continued solutions to decreasing burnout in SLPs for their well-being and client outcomes. Of the study sample, 62% reported symptoms of burnout, suggesting that burnout continues to be a problem that SLPs face in their workplace. Burnout negatively impacts individual well-being and work performance, and with over half of the participants self-reporting burnout symptoms, the implications are concerning. The aMBI questions in the survey addressed emotional exhaustion,

depersonalization, and reduced personal accomplishment. A limitation of this study is that the wide range of participants in the study most likely impacted a more in-depth analysis of burnout. For example, having participants with three different levels of education may have confounded results. It is unknown if educational background contributed to participants experiencing various types of burnout (i.e., depersonalization, emotional exhaustion, or personal accomplishment). The scope of participants included in the study ranged from all work settings. This variability in work setting expectations, populations treated, and general work environment may have confounded results due to context impacting participants differently. A duplication of this study focusing on one work setting (i.e., schools, acute care inpatient, private practice, etc.) would create less congestion, impact results, and reduce limitations.

Psychometric assumptions related to outliers failed and highlighted a study design limitation and flaw. For example, Figure 7 p-plot shows an atypical distribution. This may have been due to the previous limitation of participants being from varied work settings rather than focusing on a specific work setting. Table 3 indicated that years of experience, and education showed high confidence as variables that were predictors of burnout, and the independent variable of caregiver contact hours showed low confidence as a predictor. The variability in demands of different work settings may have confounded these results. For example, a school-based SLP may have higher documentation demands and less time for caregiver contact hours, whereas an SLP working in a private practice may have less documentation demands and more time to engage with caregivers.

Ethical and theoretical limitations were considered and not identified when reviewing the data and results. No ethical limitations were noted related to this study, as the consent and confidentiality of the data were preserved. Participant confidentiality was assured through the

survey consent process and the study's approval by the IRB. Theoretical limitations were not noted, as the scope of the study and applicability were relevant to the population being studied per the current literature. Theoretical themes regarding burnout and stress are considered reliable.

Methodological limitations related to measures used to collect self-reported data were identified. The participants may have been biased by their unwillingness or unawareness to answer questions truthfully. Burleson et al. (2023) note that confirmation bias is a near given bias when doing survey research that can impact the validity of results. Confirmation bias is when an individual processes, answers, or participates in a way that supports their existing belief or framework. The survey consent did not identify "burnout" as a focus but instead perceptions of working as an SLP. Participants may also have been disproportionately influenced to respond a particular way when answering based on their perception of the questions. A participant may have views of their experiences that are skewed or inaccurate perception. For example, self-reported data can be impacted by the participant's perception, memory, motivation, and emotions. Time constraints may also affect the accuracy of responses. For example, if a participant is in a hurry or feels time pressure, they may not complete the survey accurately or carefully. Social desirability bias was a limitation of this study in that participants may have answered questions about how they interpreted what society would find acceptable or expected. Social desirability bias controls for validity are challenging to implement due to the specificity of a research topic but can severely impact the validity of results (Larson, 2019).

Quantitative research design can be a limitation because complex behaviors are more complicated, but not impossible, to analyze using quantitative methods. The subtle nuances contributing to human behavior and choices can be missed or not deeply explored when using quantitative methods (Arias Valencia, 2022). For example, closed-ended responses often used

with quantitative methods have limited outcomes, and other relevant data is excluded. Using qualitative methods may provide additional data sets and themes not anticipated by the researcher that are relevant to the data set and results.

Lastly, compassion fatigue and compassion satisfaction are essential theoretical concepts that could impact SLPs' caregiver interactions and well-being. This study acknowledged the importance of these concepts but did not measure participants for either. The participants' level of fatigue or level of satisfaction was not assessed in this study, but it may have been influenced by burnout. These levels could negatively impact a participant's view of caregiver interaction in terms of either the number of hours, methodology, or quantity. For example, if an SLP does not value caregiver interaction, they may use fewer engaging modalities or lack quality aspects of engagement when interacting with caregivers. Conversely, SLPs may use more quality methods to engage and interact if they value caregiver interactions. Valuing caregiver interactions was not measured in this study.

Recommendations for Future Research

Although the results were not robust in connecting caregiver contact hours to reduced burnout, other areas were noted for further study. First, only the amount of caregiver contact hours was measured in this study, not the quality of the contact hours. The quality, type, and mode of caregiver contact may result in different feelings of connectedness and professional success for SLPs. These data could inform the improvement of methods of caregiver contact across settings.

Second, data from this study also revealed high *t*-values for education and years of experience, which indicates that these factors are more likely to have a relationship with burnout than caregiver contact hours. This data set provides a guided focus for future studies to examine

the variables of education, years of experience, and work settings related to burnout. Although education levels may be inflexible due to licensure requirements for professionals, results could support the development of educational programs that include strategies to avoid burnout or other preventive mental health education. More work needs to be done to understand the variations between work settings; populations worked with, and other contributing variables to the mental health needs of providers in speech-language pathology.

The years of experience an SLP has could provide insight into what factors impact early, mid, and late-career professionals. Further examination of the impact of mental health supports on providers throughout their careers and whether that would be a feasible intervention to avoid burnout would contribute to the body of literature. Such research could impact preparing and retaining SLPs.

Examining different work settings more closely could provide insights into the rates of burnout in various settings. Because the SLP field is so deep and wide, encompassing many other settings, disorders, and clients, a narrower focus on this variable could provide vital information. For example, there may be settings where burnout is lower, allowing researchers to examine what elements contribute to less burnout. This information may be extrapolated or applied to other settings. Conversely, if specific settings were identified as having higher rates of burnout, those factors could be more thoroughly analyzed for implications and improvements that could increase retention of SLPs in the field.

Additionally, studying factors that impact job satisfaction and reduced burnout related to individual characteristics may provide more tangible opportunities for support or change in the field of speech-language pathology. For example, exploring if professional identity, which Blood et al. (2002) indicated partially mitigates burnout, is a variable that can be supported or

developed in service providers as a preventative measure for burnout and thereby improving retention.

Third, retention in speech-language pathology is an area for further research. Exploring the reasons for leaving the field in a post-COVID-19 world in more depth would provide a greater understanding of how to prevent attrition. Such a study could also explain how burnout may have a role in current attrition rates and if burnout-related reasons cause attrition from the field. Preventative measures to avoid clinicians leaving the field could be derived from further study.

Christian Worldview

Professionals in allied health fields experiencing burnout, symptoms of stress, or compassion fatigue can use biblical Christian principles to manage these conditions. Frederick and Dunbar (2021) suggested that Christian contemplative practices are uniquely suited to combating burnout. Christian biblical principles that can alleviate burnout have two common themes. The first theme is that man is not meant to do the work of the Lord alone. He can engage in prayer and guidance and seek wisdom from the Lord. The second theme is that man should be an example of faithful living, but God judges what that means for each individual.

Moses is an excellent example from the Bible as he experienced burnout, leading the Israelites out of persecution. He experienced frustration, apathy, and fatigue as a leader and helper. The modern-day interpretation would be that Moses was experiencing burnout. His mistake was that he tried to carry his burdens alone and did not look to the Lord for guidance. Exodus 18:18-20 says:

> You and these people who come to you will only wear yourselves out. The work is too heavy for you; you cannot handle it alone. Listen now to me and I will give you some advice, and may God be with you. You must be the people's representative before God and bring their disputes to him. Teach them his decrees and instructions and show them the way they are to live and how they are to behave (King James Bible, 1769/2017, Exodus 18:18-20).

These words reminded Moses that he had support and more than a partner in his leadership in the Lord. He was not the final judgment on the people he led but a model and example of His wisdom. Instead of taking this on as a personal burden, Moses could give these difficulties and frustrations to the Lord, seeking His advice and wisdom through prayer.

The story of Elijah demonstrates how the Lord does not reveal His plans at once (King James Bible, 1769/2017). Instead, He waits until we are ready, both physically and spiritually. Elijah needed to rest and recover from Jezebel when he fled for his life. Although he felt hopeless and even stated he sought death rather than continue, the Lord provided him with the time to heal before revealing Elijah's role in His plan. This story is a two-part reminder to Christians that the Lord has a plan, and believers must trust in it and take care of themselves to serve the Lord. Elijah was a prophet known as one of the most remarkable men of the Lord, and he still needed to make sure he was taking care of his well-being to spread the word of God and serve.

This study supported the mission of God by seeking ways to improve the well-being of clinicians so that they could better serve the Lord in their practice and daily lives. Burnout, stress, and compassion fatigue have been established as impactful factors

for SLPs in their ability to successfully and positively meet their client's needs and improve client outcomes. The Christian worldview provides a framework for believers when experiencing burnout to trust in the Lord and reach for Him through prayer for love and support. Psalm 18:28-29 says, "You, Lord, keep my lamp burning; my God turns my darkness into light. With your help I can advance against a troop; with my God I can scale a wall" (King James Bible, 1769/2017). This research study was conceptualized in an attempt to scale a wall and look to God's light to support the well-being of working clinicians and the field of speech-language pathology.

Summary

The need for qualified professionals in speech-language pathology is increasing and already at a critical shortage level (Bureau of Labor Statistics, 2022). Retaining these professionals and future professionals is crucial to client outcomes as the need for SLPs is projected to increase (Bureau of Labor Statistics, 2022). The field has been plagued with a myopic, repetitive focus on variables contributing to burnout and dissatisfaction, with little to no changes in over two decades of discussion (ASHA, 2020; Bureau of Labor Statistics, 2022). Exploring other avenues for growing, supporting, and retaining members of this profession is long overdue. Caregiver contact is an integral part of nearly all therapy sessions (Klatte et al., 2020) and was researched in this study better to understand the relationship between caregiver contact and burnout.

The results of this study suggested that caregiver contact hours do not significantly impact self-reported burnout, but other variables may be more strongly associated with burnout. The findings also indicated that the majority of participants in

this study self-reported symptoms of burnout. The relationship between burnout and SLPs continues to be a theme among working professionals.

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APPENDIX A

SURVEY QUESTIONS

Survey Questionnaire

Q1: What is your age?

*Text entry Participant will key in

Q2: How many years have you worked in the profession?

*Text entry Participant will key

Q3: Indicate all current practice settings that you work in (check all that apply):

- ☐ Elementary School
- ☐ Middle School
- ☐ High School
- ☐ Private Practice
- ☐ Outpatient Clinic-Pediatrics
- ☐ Inpatient Clinic- Pediatrics
- ☐ Early Intervention
- ☐ Inpatient Rehab
- ☐ Inpatient Acute Care
- ☐ Home Health
- ☐ Skilled Nursing Facility
- ☐ Other (text entry)

Q4: Indicate your current primary practice setting (the setting where you spend the majority of your work hours).

- ☐ Elementary School
- ☐ Middle School
- ☐ High School
- ☐ Private Practice
- ☐ Outpatient Clinic-Pediatrics
- ☐ Inpatient Clinic- Pediatrics
- ☐ Early Intervention
- ☐ Inpatient Rehab
- ☐ Inpatient Acute Care
- ☐ Home Health
- ☐ Skilled Nursing Facility
- ☐ Other (text entry)

Q5: How many hours a week do you work in your primary setting?

- ☐ Full-time 32 or more hours per week
- ☐ Part-time 20-31 hours per week
- ☐ Part-time 10-19 hours per week
- ☐ Part-time 1-19 hours per week
- ☐ Other (text entry)

Q6: What is your gender?

- ☐ Male
- ☐ Female
- ☐ Other (text entry)

Q7: How do you interact with caregivers (indicate all modalities that apply)?

- ☐ Face-to-face conversation
- ☐ Text message
- ☐ Phone call
- ☐ Communication video platforms (e.g., Zoom, Teams, Facetime, etc.)
- ☐ Communication written platforms (e.g., Class Dojo, etc.)
- ☐ Written notes
- ☐ Email
- ☐ Other (text entry)

Q8: What is your primary method of interacting with caregivers (choose one)?

- ☐ Face-to-face conversation
- ☐ Text message
- ☐ Phone call
- ☐ Communication video platforms (Zoom, Teams, Facetime, etc.)
- ☐ Communication written platforms (Class Dojo, etc.)
- ☐ Written notes
- ☐ Email
- ☐ Other (text entry)

Q9: Indicate the number of hours per week you spend interacting with caregivers in all methods:

- ☐ Less than 1 hour
- ☐ 1 hour
- ☐ 2 hours
- ☐ 3 hours
- ☐ 4 hours
- ☐ 5 hours
- ☐ 6 hours
- ☐ 7 hours
- ☐ 8 hours
- ☐ 9 hours
- ☐ 10 or more hours

Q10:

Use the scale below in response to this statement:
I feel emotionally drained from my work.

- ☐ 0 (Never)
- ☐ 1 (a few times a year or less)
- ☐ 2 (once a month or less)
- ☐ 3 (a few times a month)
- ☐ 4 (once a week)
- ☐ 5 (a few times a week)
- ☐ 6 (Every day)

Q11:
Use the scale below in response to this statement:
I feel fatigued when I get up in the morning and have to face another day on the job.

- ☐ 0 (Never)
- ☐ 1 (a few times a year or less)
- ☐ 2 (once a month or less)
- ☐ 3 (a few times a month)
- ☐ 4 (once a week)
- ☐ 5 (a few times a week)
- ☐ 6 (Every day)

Q12:
Use the scale below in response to this statement:
Working with people all day is really a strain for me.

- ☐ 0 (Never)
- ☐ 1 (a few times a year or less)
- ☐ 2 (once a month or less)
- ☐ 3 (a few times a month)
- ☐ 4 (once a week)
- ☐ 5 (a few times a week)
- ☐ 6 (Every day)

Q13:
Use the scale below in response to this statement:
I feel emotionally drained from my work

- ☐ 0 (Never)
- ☐ 1 (a few times a year or less)
- ☐ 2 (once a month or less)
- ☐ 3 (a few times a month)
- ☐ 4 (once a week)
- ☐ 5 (a few times a week)
- ☐ 6 (Every day)

Q14:
Use the scale below in response to this statement:
I have become more callous towards people since I took this job

- ☐ 0 (Never)
- ☐ 1 (a few times a year or less)
- ☐ 2 (once a month or less)
- ☐ 3 (a few times a month)
- ☐ 4 (once a week)
- ☐ 5 (a few times a week)
- ☐ 6 (Every day)

Q15:
Use the scale below in response to this statement:
I don't really care what happens to some patients

- ☐ 0 (Never)
- ☐ 1 (a few times a year or less)
- ☐ 2 (once a month or less)
- ☐ 3 (a few times a month)
- ☐ 4 (once a week)
- ☐ 5 (a few times a week)
- ☐ 6 (Every day)

Q16:
Use the scale below in response to this statement:
I feel that I treat some people as if they were impersonal objects

- ☐ 0 (Never)
- ☐ 1 (a few times a year or less)
- ☐ 2 (once a month or less)
- ☐ 3 (a few times a month)
- ☐ 4 (once a week)
- ☐ 5 (a few times a week)
- ☐ 6 (Every day)

Q17:
Use the scale below in response to this statement:
I feel exhilarated after working closely with my patients

- ☐ 0 (Never)
- ☐ 1 (a few times a year or less)
- ☐ 2 (once a month or less)
- ☐ 3 (a few times a month)
- ☐ 4 (once a week)
- ☐ 5 (a few times a week)
- ☐ 6 (Every day)

Q18:
Use the scale below in response to this statement:
I deal very effectively with the problems of my patients

- ☐ 0 (Never)
- ☐ 1 (a few times a year or less)

- ☐ 2 (once a month or less)
- ☐ 3 (a few times a month)
- ☐ 4 (once a week)
- ☐ 5 (a few times a week)
- ☐ 6 (Every day)

Q19:
Use the scale below in response to this statement:
I feel that I am positively influencing other people's lives"

- ☐ 0 (Never)
- ☐ 1 (a few times a year or less)
- ☐ 2 (once a month or less)
- ☐ 3 (a few times a month)
- ☐ 4 (once a week)
- ☐ 5 (a few times a week)
- ☐ 6 (Every day)