



# BUFFERING THE BURDEN OF PROFESSIONAL ADVANCEMENT: THE MODERATING ROLE OF MULTIDIMENSIONAL SOCIAL SUPPORT ON STRESS AMONG CAREER PERSONNEL IN ADVANCED TRAINING PROGRAMS

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## Abstract

Advanced professional training can strengthen career mobility and organizational capacity, yet the accumulation of workload, performance expectations, and competing roles may intensify psychological stress among career personnel. This study examines whether multidimensional social support moderates the relationship between professional advancement demands and perceived stress. A quantitative cross-sectional explanatory design was employed with 312 career personnel enrolled in advanced training programs. Data were collected using validated measures of professional advancement demands, perceived stress, and emotional, instrumental, informational, and appraisal support, then analyzed through hierarchical regression, interaction testing, bootstrapped moderation analysis, and simple-slope estimation. The findings show that professional advancement demands significantly predicted higher stress, while all support dimensions were negatively associated with stress. Emotional, instrumental, and appraisal support significantly weakened the relationship between advancement demands and stress, whereas informational support showed a direct protective effect without significant moderation. Instrumental support produced the strongest buffering effect, indicating the importance of practical assistance, workload adjustment, and schedule flexibility. The study concludes that stress during professional advancement is shaped not only by demand intensity but also by the configuration of available social resources, underscoring the need for training systems that integrate psychological, interpersonal, and organizational support to sustain learning, well-being, and long-term career development.

**Keywords:** Advanced Training; Career Personnel; Multidimensional Social Support; Professional Advancement; Psychological Stress



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## INTRODUCTION

Professional advancement increasingly requires career personnel to participate in advanced training programs that demand substantial investments of time, cognitive effort, emotional energy, and personal adjustment (Schaepe et al., 2025). Such programs are commonly designed to strengthen leadership competencies, technical expertise, managerial capacity, professional certification, and readiness for higher organizational responsibilities (Sasson-Shoshan et al., 2026). Participation in advanced training often occurs while individuals continue to manage existing occupational duties, family obligations, administrative responsibilities, and expectations for sustained performance (Park et al., 2025). This accumulation of demands can create a distinctive form of pressure in which professional development, although intended to enhance future career opportunities, becomes an immediate source of psychological strain (Shulyaev et al., 2025). Stress among career personnel in advanced training therefore deserves attention as an organizational and psychosocial issue rather than being treated merely as an individual difficulty in adapting to educational requirements.

Advanced training environments often expose participants to intensive schedules, performance evaluations, competitive standards, unfamiliar academic tasks, and expectations for rapid mastery of complex competencies (Baquero-Rodriguez et al., 2026). Career personnel may experience additional pressure because their participation is frequently linked to promotion, professional credibility, leadership selection, institutional expectations, or long-term career mobility (Johnson et al., 2024). Failure to meet training requirements may consequently be perceived as having implications that extend beyond academic performance to professional reputation and future advancement (Gao et al., 2026). The psychological burden can become particularly pronounced when participants must negotiate conflicting roles as employees, trainees, supervisors, colleagues, spouses, parents, or community members (Sakarya, 2026). These overlapping responsibilities suggest that stress during professional training emerges from an interaction between institutional demands and the broader social contexts in which career personnel live and work.

Social support represents an important psychosocial resource that may help individuals manage the demands associated with professional advancement (Abidin et al., 2025). Support can arise from supervisors, coworkers, family members, peers, mentors, training institutions, and significant others, each of whom may provide different forms of assistance (Sawaya et al., 2026). Emotional encouragement can reduce feelings of isolation, informational support can clarify training requirements, instrumental support can reduce practical burdens, and appraisal support can help participants evaluate their progress more realistically (Wendlandt et al., 2024). The multidimensional nature of social support is particularly relevant because individuals facing complex professional demands may require more than one type of assistance (Tiring & Yüksel, 2025). Understanding how these dimensions operate under conditions of intensive training can provide a stronger explanation of why some career personnel remain psychologically resilient while others experience elevated stress despite facing comparable workloads.

Stress among career personnel in advanced training programs presents a problem because professional development initiatives may unintentionally impose psychological costs that reduce the effectiveness of the very programs designed to strengthen workforce capacity (Cenkçi et al., 2024). High levels of stress can interfere with concentration, motivation, learning engagement, decision-making, sleep quality, interpersonal functioning, and overall well-being. Persistent strain may also diminish participants' capacity to transfer acquired competencies into their professional roles after training (W. Liu et al., 2024). Organizations that focus primarily on curriculum quality and performance outcomes may therefore overlook the psychosocial conditions that determine whether participants can successfully engage with

demanding learning environments (C. Yang et al., 2025). The problem requires examination of both the sources of stress and the protective resources available to participants.

Existing organizational responses to training-related stress often emphasize individual coping strategies, time management, resilience, or self-regulation (Y. Liu et al., 2025). These approaches are useful but may place excessive responsibility on participants while underestimating the social and institutional conditions that shape stress experiences (Huang et al., 2025). Career personnel do not engage in advanced training as isolated individuals; they remain embedded within professional teams, supervisory relationships, family systems, and peer networks. Limited support from these environments may intensify role conflict and perceived burden, whereas supportive relationships may help redistribute demands and strengthen confidence (Feng, 2025). The central problem is therefore not simply whether participants experience stress, but whether different forms of social support alter the strength of the relationship between training demands and psychological strain.

The conceptualization of social support as a single undifferentiated variable creates an additional analytical problem (Lin et al., 2024). Emotional, instrumental, informational, and appraisal support may not exert equivalent effects under the same conditions. Practical assistance may be more useful when workload and time pressure are dominant, while emotional support may be more relevant when participants experience anxiety, self-doubt, or social isolation (Kulari, 2025). Informational support may become critical when training procedures are complex, and appraisal support may help individuals interpret performance feedback constructively. Research that combines these dimensions into a single total score may obscure meaningful differences in how particular forms of support buffer stress (Riyadi et al., 2025). A multidimensional approach is therefore necessary to determine which support mechanisms are most protective and under what circumstances they exert their strongest effects.

The primary objective of this study is to examine the relationship between the demands of professional advancement and perceived stress among career personnel participating in advanced training programs (Zhang et al., 2026). The study seeks to identify the extent to which training-related workload, performance expectations, role conflict, time pressure, and professional uncertainty are associated with elevated psychological strain (Zhu et al., 2025). This objective treats stress as a response to interacting occupational and developmental demands rather than as a purely personal condition (Malinauskiene & Malinauskas, 2026). The analysis is expected to provide a clearer understanding of the burden experienced by personnel whose professional growth requires simultaneous engagement with intensive training and ongoing career responsibilities.

The study also aims to evaluate the moderating role of multidimensional social support in the relationship between professional training demands and stress (P. L. Liu & Zhou, 2026). Emotional, instrumental, informational, and appraisal support are examined as distinct but related resources that may weaken the adverse effects of demanding training conditions. The analysis seeks to determine whether high levels of support reduce the strength of the association between professional advancement pressures and perceived stress (Pavić et al., 2024). Attention is also directed toward identifying which dimensions of support demonstrate the strongest buffering effects (Nam & Lee, 2026). This objective enables the study to move beyond simple associations between social support and well-being by testing the conditions under which support changes the impact of stressors.

A further objective is to develop a more integrated explanatory framework for stress management in advanced professional training contexts (Maabreh et al., 2025). The study intends to connect occupational stress perspectives with the stress-buffering model of social support and role-related demands experienced by career personnel. Such an integration may clarify how organizational and interpersonal resources influence psychological adjustment during periods of intensive professional development (Y. Yang et al., 2024). The expected

contribution is a model that can inform training design, supervisory practices, peer-support structures, and family-sensitive organizational policies (Gil-Almagro et al., 2024). The study therefore aims to generate both theoretical insight and practical evidence for improving the sustainability of professional advancement programs.

Previous studies have extensively documented occupational stress, burnout, workload, work-family conflict, and psychological well-being across a wide range of professional settings. Research has also established social support as an important resource associated with lower stress and improved coping (Pan et al., 2025). Much of this literature, however, focuses on employees performing routine occupational roles rather than career personnel temporarily engaged in intensive advanced training (Yaqoob et al., 2025). The training context introduces a distinct combination of learning demands, professional evaluation, career expectations, and ongoing work responsibilities that may not be adequately represented in general occupational stress research (Qi & Xu, 2024). A contextual gap therefore remains regarding how stress develops during structured periods of career advancement.

Existing research on social support frequently examines direct effects, such as whether individuals with greater support report lower stress, anxiety, or burnout. Fewer studies test social support explicitly as a moderator that changes the relationship between demanding professional conditions and psychological outcomes (Lincoln & Wang, 2026). This distinction is theoretically important because the buffering hypothesis proposes that support may become particularly valuable under conditions of elevated stress rather than exerting a uniform effect across all situations (Tedeschi, 2025). Limited attention to moderation prevents researchers from determining whether social support merely coexists with lower stress or actually protects individuals when demands intensify. The present study addresses this analytical gap by positioning multidimensional social support as a conditional protective mechanism.

Research also tends to conceptualize social support globally or focus on support from a single source, such as supervisors, coworkers, or family members. Such approaches may overlook the fact that career personnel in advanced training occupy multiple social roles and rely on different networks for different forms of assistance. A supervisor may provide schedule flexibility, peers may offer informational guidance, family members may provide emotional reassurance, and mentors may provide performance-related appraisal. Limited integration of these dimensions restricts understanding of how support systems operate collectively and differentially (V Losansky et al., 2024). The present study addresses this gap by examining several support dimensions within a unified moderation framework rather than reducing social support to a single generalized construct.

The principal novelty of this study lies in conceptualizing social support as a multidimensional moderator of the relationship between professional advancement demands and stress among career personnel in advanced training programs (Malamateniou et al., 2026). This perspective shifts the analytical focus from whether social support is generally beneficial to how specific forms of support alter the psychological impact of demanding professional development. Emotional, informational, instrumental, and appraisal support are treated as potentially distinct buffering mechanisms rather than interchangeable indicators of interpersonal assistance (Patel et al., 2024). Such an approach provides greater theoretical precision and can reveal whether particular support resources become especially important under specific forms of training-related pressure.

A second element of novelty concerns the positioning of advanced training as a unique occupational transition context rather than a routine educational or workplace experience (Finlayson et al., 2025). Career personnel participating in these programs often face simultaneous expectations for academic achievement, professional competence, organizational loyalty, and continued role performance (Fakourfar et al., 2026). The study therefore brings together occupational stress, adult professional learning, social support, and career development within a single explanatory model. This integration expands research on

professional advancement by recognizing that development opportunities can produce both growth and burden. The proposed framework provides a more balanced understanding of training effectiveness by incorporating psychological sustainability alongside competence acquisition and performance outcomes.

The justification for this study is grounded in the need for organizations to design professional development systems that strengthen human capital without generating avoidable psychological strain (Leng et al., 2026). Advanced training programs are often costly, strategically important, and closely linked to succession planning, leadership development, certification, and organizational transformation. Participant stress can reduce learning quality, increase disengagement, undermine well-being, and weaken the return on institutional investment. Evidence regarding the buffering role of multidimensional social support can therefore guide the development of more responsive training environments, including mentoring systems, supervisor involvement, peer-support structures, workload adjustment, and family-sensitive policies (Moulton et al., 2024). The study is positioned to contribute to organizational psychology, occupational health, human resource development, and professional education by demonstrating that successful career advancement depends not only on individual competence, but also on the quality and configuration of social support surrounding the individual during periods of intensified professional demand.

## RESEARCH METHOD

### *Research Design*

This study employed a quantitative cross-sectional explanatory research design to examine the relationship between professional advancement demands and perceived stress among career personnel participating in advanced training programs (Larsson et al., 2025). The design was selected because the study sought to estimate the magnitude and direction of relationships among measurable psychosocial variables and to test whether multidimensional social support changes the strength of the relationship between training-related demands and stress. Professional advancement demands were treated as the principal predictor, perceived stress as the outcome variable, and multidimensional social support as the moderating construct (Chen et al., 2025). The analytical model was grounded in the stress-buffering perspective, which assumes that supportive interpersonal and organizational resources can reduce the psychological consequences of demanding circumstances.

The research model distinguished four dimensions of social support: emotional, instrumental, informational, and appraisal support. Emotional support referred to expressions of empathy, encouragement, and interpersonal understanding; instrumental support represented practical assistance and tangible resources; informational support reflected access to advice, guidance, and relevant knowledge; and appraisal support represented constructive feedback that helps individuals evaluate their competence and progress. Each dimension was examined separately as a moderator to determine whether particular forms of support provided stronger protective effects under conditions of elevated training pressure. This multidimensional approach avoided treating social support as a single homogeneous resource and enabled more precise identification of the mechanisms associated with stress reduction.

The study adopted a moderation framework rather than limiting the analysis to direct associations between social support and stress. The principal analytical assumption was that professional advancement demands would be positively associated with perceived stress, while social support would demonstrate both a direct protective association and a conditional buffering effect. Moderation was indicated when the interaction between professional advancement demands and a specific support dimension significantly predicted perceived stress after controlling for relevant individual and occupational characteristics. Age, gender, marital status, length of professional service, training duration, occupational level, and weekly

workload were considered as potential control variables because variations in these characteristics could influence participants' exposure and adaptation to training-related demands.

### *Research Target/Subject*

The target population for this study consisted of active career personnel currently enrolled in advanced professional development and training programs across participating institutions. To obtain a representative sample, a probability sampling technique specifically stratified random sampling based on organizational sectors and training cohorts was employed. This approach ensured balanced representation across distinct occupational levels, service durations, and demographic backgrounds, thereby enhancing the generalizability of the empirical findings to comparable organizational contexts.

The sample size was determined prior to data collection using statistical power estimation for linear multiple regression and interaction effects, targeting a medium effect size with standard confidence levels. Eligibility was restricted to personnel who had completed a sufficient portion of their training program to ensure respondents possessed meaningful exposure to training workloads, organizational expectations, and social support dynamics. Individuals who failed to meet these criteria or submitted incomplete records during the preliminary screening phase were excluded from the final analytical sample.

### *Research Procedure*

Data collection began after institutional authorization and ethical approval had been obtained from the relevant authority. Training administrators were contacted to facilitate access to eligible participants without influencing individual decisions regarding participation. Prospective respondents received an information sheet explaining the objectives of the study, research procedures, confidentiality protections, voluntary nature of participation, and right to discontinue participation without professional or academic consequences. Informed consent was obtained before questionnaire completion. No identifying information unnecessary for analysis was collected, and individual responses were not disclosed to supervisors, training administrators, or employing institutions.

Questionnaires were distributed electronically or in printed form according to the accessibility of each training cohort. Participants completed the instruments individually and were instructed to evaluate their experiences during the current advanced training period. Data collection was arranged at a stage when participants had experienced sufficient training activities to evaluate workload, role demands, social support, and stress meaningfully. Completed questionnaires were screened for missing values, duplicate responses, extreme response patterns, and evidence of careless completion. Data were subsequently coded and entered into statistical software for analysis, while participant identities remained separated from the analytical dataset.

Preliminary analysis consisted of descriptive statistics, missing-data examination, distributional assessment, reliability testing, and evaluation of potential multicollinearity. Means, standard deviations, frequencies, and percentages were calculated to describe participant characteristics and the principal study variables. Pearson correlation analysis was used to examine preliminary associations among professional advancement demands, social-support dimensions, and perceived stress when parametric assumptions were adequately satisfied. Variance inflation factors and tolerance statistics were examined before regression analysis to ensure that predictor overlap did not compromise estimation. Continuous predictor and moderator variables were mean-centered before interaction terms were constructed to improve interpretability and reduce nonessential multicollinearity.

Moderation analysis was conducted using hierarchical multiple regression and bootstrapped conditional-effect estimation. Professional advancement demands and relevant control variables were entered first, followed by the four dimensions of social support, while interaction terms between professional advancement demands and each support dimension were introduced in the subsequent model. A statistically significant interaction coefficient was interpreted as evidence that the relationship between advancement demands and perceived stress varied according to the level of the relevant social-support dimension. Significant interactions were examined through simple-slope analysis at low, moderate, and high levels of support, commonly represented by one standard deviation below the mean, the mean, and one standard deviation above the mean.

Statistical significance was evaluated at an alpha level of .05, while 95% confidence intervals and standardized effect estimates were reported to support substantive interpretation. Bootstrapping with 5,000 resamples was used to obtain more robust confidence intervals for conditional and interaction effects. The analysis emphasized effect magnitude and pattern rather than statistical significance alone because the study sought to determine which forms of social support meaningfully buffered training-related stress. The final interpretation integrated direct effects, interaction effects, and simple-slope patterns to determine whether emotional, instrumental, informational, or appraisal support provided the strongest protection against the psychological burden associated with professional advancement.

### *Instruments, and Data Collection Techniques*

Professional advancement demands were measured using a structured questionnaire developed around the principal pressures associated with intensive career training. The instrument assessed training workload, time pressure, performance expectations, role conflict, academic or competency requirements, professional evaluation, and uncertainty related to career progression. Participants rated each statement using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree), with higher composite scores indicating greater perceived advancement-related demands. Item development was informed by occupational stress and professional development literature, while expert review was used to ensure that the statements reflected conditions specifically experienced by employed personnel undergoing advanced training.

Perceived stress was assessed using a standardized self-report scale measuring the extent to which participants experienced their recent circumstances as unpredictable, difficult to control, and psychologically demanding. Items evaluated feelings of overload, difficulty managing responsibilities, perceived lack of control, and tension associated with competing demands. Responses were recorded on a five-point frequency scale, with negatively worded or positively framed items reverse-scored where required by the instrument. Item scores were summed or averaged to produce an overall stress index, with higher scores indicating greater perceived psychological strain during participation in the advanced training program.

Multidimensional social support was measured through separate subscales assessing emotional, instrumental, informational, and appraisal support. Participants evaluated the extent to which relevant people and institutions provided encouragement, practical assistance, useful advice, constructive feedback, and understanding during the training period. Support sources included family members, supervisors, coworkers, peers, mentors, and training institutions, allowing the measure to reflect the socially embedded character of professional development. Higher scores represented greater perceived availability of each support dimension. Separate scores were retained for moderation analysis because combining all dimensions into a single index could conceal differences in their protective functions.

Instrument quality was evaluated before hypothesis testing. Content validity was assessed by experts in organizational psychology, occupational health, human resource development, and research methodology to examine conceptual relevance, item clarity, and correspondence

between indicators and constructs. A pilot test was conducted with career personnel who possessed characteristics comparable to those of the target population but were not included in the final sample. Internal consistency was evaluated using Cronbach's alpha and composite reliability, with coefficients of .70 or higher regarded as acceptable. Construct validity was examined using exploratory or confirmatory factor procedures where appropriate, while convergent and discriminant validity were evaluated to ensure that the four social-support dimensions represented related but distinguishable constructs.

### *Data Analysis Technique*

Data analysis followed a systematic quantitative procedure aligned with the research objectives and moderating hypotheses. Initially, descriptive statistics were calculated to profile the sample characteristics and evaluate the central tendencies and distributions of professional advancement demands, social support subscales, and perceived stress. Diagnostic tests were conducted to verify parametric assumptions, including normality, linearity, homoscedasticity, and multicollinearity, ensuring that predictor intercorrelations did not compromise model estimation.

Hypothesis testing was executed using hierarchical multiple regression and conditional-effect estimation to evaluate both direct associations and buffering effects. Continuous predictor and moderator constructs were mean-centered prior to model entry to facilitate interpretation and reduce non-essential multicollinearity, while bootstrapping procedures were applied to yield robust confidence intervals for interaction terms. Significant interactions were further examined through simple-slope analyses across low, moderate, and high levels of each social support dimension to determine the precise conditional conditions under which support reduces training-induced stress.

## **RESULTS AND DISCUSSION**

The final analytical sample consisted of 312 career personnel enrolled in advanced professional training programs after incomplete and invalid responses were excluded during data screening. Participants represented various occupational levels and training pathways related to leadership development, professional certification, technical specialization, and preparation for higher organizational responsibilities. The mean age of respondents was 37.84 years ( $SD = 7.26$ ), while the average length of professional service was 11.63 years ( $SD = 6.91$ ). Participants reported moderate-to-high professional advancement demands ( $M = 3.78$ ,  $SD = 0.64$ ) and moderate perceived stress ( $M = 3.41$ ,  $SD = 0.71$ ). Emotional support obtained the highest mean among the four support dimensions ( $M = 3.92$ ,  $SD = 0.66$ ), followed by informational support ( $M = 3.81$ ,  $SD = 0.63$ ), appraisal support ( $M = 3.76$ ,  $SD = 0.65$ ), and instrumental support ( $M = 3.69$ ,  $SD = 0.70$ ).

**Table 1.** Descriptive Statistics of the Main Study Variables

| Variable                         | Mean | SD   | Minimum | Maximum | Cronbach's $\alpha$ |
|----------------------------------|------|------|---------|---------|---------------------|
| Professional advancement demands | 3.78 | 0.64 | 1.82    | 5.00    | .89                 |
| Perceived stress                 | 3.41 | 0.71 | 1.30    | 4.90    | .87                 |
| Emotional support                | 3.92 | 0.66 | 1.67    | 5.00    | .91                 |
| Instrumental support             | 3.69 | 0.70 | 1.40    | 5.00    | .88                 |
| Informational support            | 3.81 | 0.63 | 1.60    | 5.00    | .90                 |
| Appraisal support                | 3.76 | 0.65 | 1.50    | 5.00    | .86                 |

The distribution of scores suggested meaningful variation in both training-related burden and available social resources. Approximately 31.4% of participants reported advancement-

demand scores above one standard deviation from the sample mean, indicating that a substantial subgroup experienced particularly intensive professional pressure. High perceived stress was observed among 27.9% of respondents using the same distributional criterion. Participants reporting higher levels of emotional and instrumental support were less concentrated in the high-stress category, whereas respondents with low support across multiple dimensions were disproportionately represented among those reporting elevated stress. This pattern provided an initial indication that the effect of professional advancement demands may differ according to the quality of social support available during training.

The descriptive results indicate that participation in advanced training was generally experienced as demanding rather than neutral. Professional advancement demands were especially pronounced in relation to simultaneous work responsibilities, training deadlines, performance evaluation, limited recovery time, and role conflict between professional and personal obligations. Respondents with higher demand scores commonly reported difficulty allocating sufficient time to both training requirements and regular occupational duties. The observed mean level of perceived stress suggests that professional development can create a meaningful psychological burden even when participation is associated with positive career prospects.

The relatively high scores for emotional and informational support show that respondents were not uniformly isolated during training. Emotional support was most commonly associated with encouragement from family members, peers, and close colleagues, whereas informational support was frequently derived from mentors, instructors, supervisors, and fellow participants. Instrumental support was comparatively lower, indicating that practical assistance such as workload adjustment, schedule flexibility, task redistribution, or direct logistical help was less consistently available. The distinction is important because supportive relationships may be perceived positively while still failing to reduce the practical pressures that contribute directly to stress.

Correlation analysis showed that professional advancement demands were positively and significantly associated with perceived stress, ( $r = .58, p < .001$ ). All four dimensions of social support were negatively related to perceived stress. Emotional support demonstrated the strongest bivariate relationship with stress, ( $r = -.46, p < .001$ ), followed by instrumental support, ( $r = -.42, p < .001$ ), appraisal support, ( $r = -.38, p < .001$ ), and informational support, ( $r = -.35, p < .001$ ). Professional advancement demands also showed modest negative relationships with the support dimensions, suggesting that participants facing greater pressure tended to perceive somewhat less support during training.

The correlation structure also demonstrated that the four support dimensions were positively related but not statistically redundant. Intercorrelations ranged from .46 to .58, supporting the conceptual decision to treat emotional, instrumental, informational, and appraisal support as related yet distinguishable constructs. Variance inflation factors in the regression models ranged from 1.32 to 2.14, remaining below conventional thresholds for problematic multicollinearity. The pattern supported subsequent testing of separate interaction effects because each support dimension retained sufficient unique variance to provide an interpretable moderating contribution.

Hierarchical multiple regression confirmed that professional advancement demands significantly predicted perceived stress after demographic and occupational covariates were controlled. The control variables accounted for 8.1% of the variance in stress, while the addition of professional advancement demands increased explained variance to 35.6%. Higher professional advancement demands predicted higher stress, ( $\beta = .53, p < .001$ ). Inclusion of the four social-support dimensions increased the explained variance to 48.7%, demonstrating that social support contributed substantially beyond workload and personal characteristics. Emotional support ( $\beta = -.24, p < .001$ ) and instrumental support ( $\beta = -.20, p < .001$ ) showed the strongest direct protective associations.

Interaction terms were entered in the final regression model to test the moderating effects of each support dimension. The interaction between professional advancement demands and emotional support was significant, ( $\beta = -.16$ ,  $p = .002$ ), as was the interaction with instrumental support, ( $\beta = -.19$ ,  $p < .001$ ). Appraisal support also produced a smaller but significant interaction, ( $\beta = -.11$ ,  $p = .021$ ). The interaction involving informational support did not reach statistical significance, ( $\beta = -.07$ ,  $p = .118$ ). The final model explained 53.4% of the variance in perceived stress, indicating that moderation effects added meaningful explanatory power beyond the direct effects.

Simple-slope analysis clarified the interaction between professional advancement demands and emotional support. At low emotional support, advancement demands were strongly associated with stress, ( $B = .71$ ,  $p < .001$ ). The relationship remained significant but weaker at average emotional support, ( $B = .54$ ,  $p < .001$ ), and declined further at high emotional support, ( $B = .37$ ,  $p < .001$ ). This gradient demonstrates that emotional support did not eliminate stress arising from demanding training conditions but reduced the extent to which higher demands translated into stronger psychological strain.

Instrumental support produced an even clearer buffering pattern. Participants with low instrumental support showed the steepest increase in stress as professional advancement demands increased, ( $B = .76$ ,  $p < .001$ ). The slope declined to ( $B = .53$ ,  $p < .001$ ) at the mean level of instrumental support and to ( $B = .29$ ,  $p = .004$ ) at high instrumental support. Appraisal support showed a similar but weaker pattern, whereas informational support mainly demonstrated a direct protective relationship rather than a statistically reliable moderation effect. The comparative pattern indicates that support reducing practical burden may be particularly important when participants face simultaneously intensive training and occupational responsibilities.

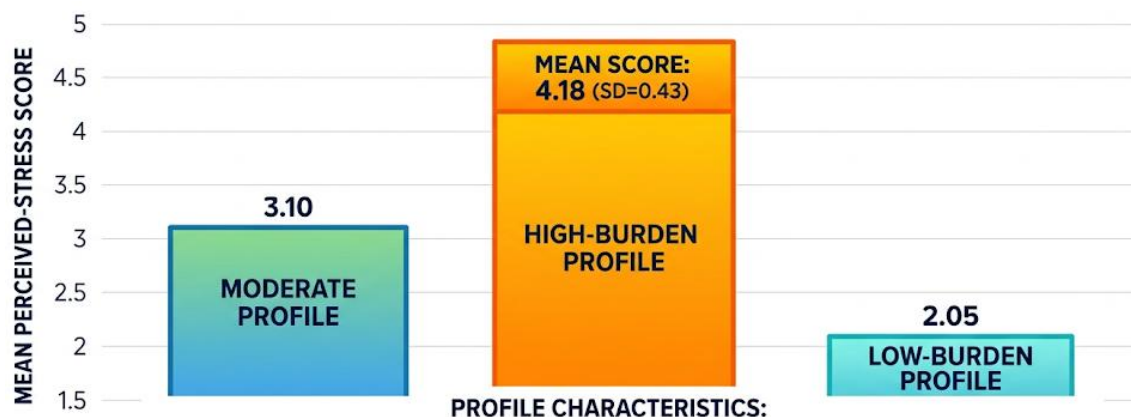


**Figure 1.** Stress Profile of Carrier Personnel Under High-Burden Conditions

A high-burden profile was observed among respondents who reported professional advancement demands above the upper quartile and social support below the lower quartile. Participants in this profile recorded a mean perceived-stress score of 4.18 ( $SD = 0.43$ ). Their responses were characterized by limited schedule flexibility, continued responsibility for routine professional tasks, insufficient practical assistance from colleagues or supervisors, and difficulty balancing training requirements with family obligations. Emotional encouragement was present in some cases but was often insufficient to compensate for the practical accumulation of responsibilities. This profile illustrates a situation in which career advancement is experienced as a layered burden rather than as a protected developmental opportunity.

A buffered-advancement profile was identified among respondents who experienced similarly high professional demands but reported strong emotional and instrumental support. Their mean perceived-stress score was substantially lower at 3.22 ( $SD = 0.51$ ), despite demand levels that were statistically comparable with those of the high-burden group. Participants in

this profile commonly described supportive supervisors, shared workload arrangements, peer assistance, family understanding, and access to practical help during intensive training periods. The contrast indicates that comparable levels of objective or perceived demand can generate substantially different psychological outcomes depending on the surrounding social-support environment.

The moderation pattern suggests that the protective value of social support depends partly on whether the form of support corresponds to the demands participants are actually experiencing. Emotional support may help participants manage anxiety, self-doubt, and feelings of isolation, while instrumental support directly addresses time pressure, workload, and competing responsibilities. The stronger interaction effect for instrumental support is therefore understandable because professional advancement often creates practical conflicts that cannot be resolved through encouragement alone. Support appears most effective when it changes either the perceived burden or the actual conditions producing that burden.

The nonsignificant moderation effect of informational support requires a more careful interpretation. Informational support was associated with lower stress overall, indicating that advice and guidance remained beneficial, but its protective influence did not substantially change as training demands increased. Participants may already have received considerable procedural or academic information from formal training systems, reducing the incremental value of additional informational support under highly stressful conditions. Practical and emotional resources may become more decisive once participants understand what must be done but struggle with the time, energy, role conflict, or psychological pressure required to accomplish it.

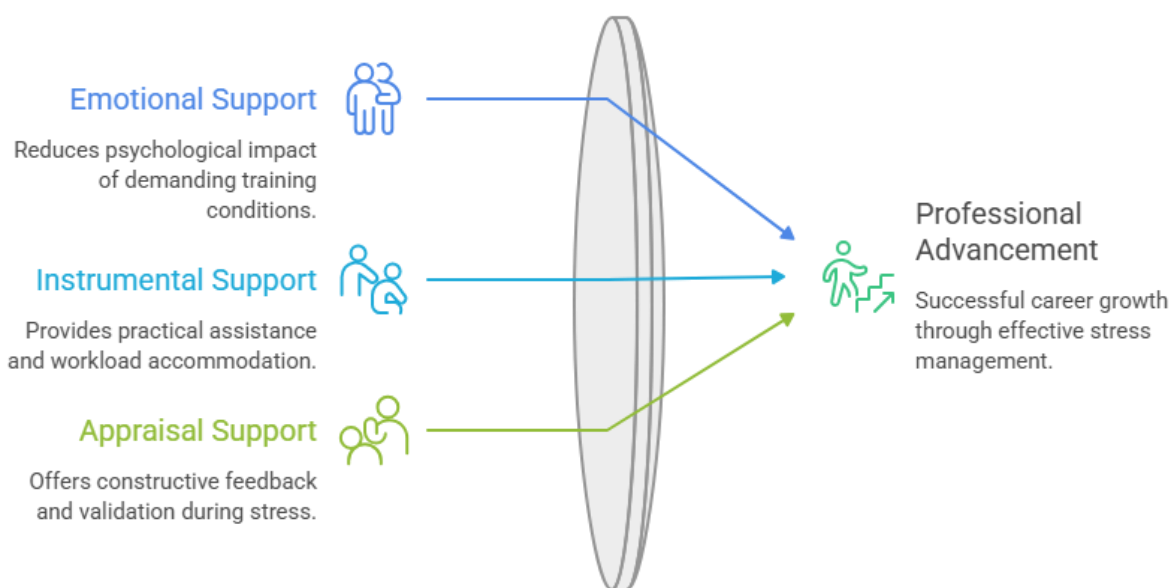


**Figure 2.** Pathways to Career Success

The findings provide strong support for the stress-buffering interpretation of social support, while also demonstrating that the buffering process is multidimensional rather than uniform. Professional advancement demands were consistently associated with greater perceived stress, yet the magnitude of this relationship was reduced when emotional, instrumental, and appraisal support were stronger. Instrumental support produced the most substantial moderation effect, suggesting that practical assistance and workload accommodation are especially important during intensive periods of professional development. Emotional support also played a meaningful protective role by weakening the psychological impact of demanding training conditions.

The overall pattern indicates that stress in advanced training programs should not be interpreted solely as a consequence of individual coping capacity or workload intensity.

Psychological strain develops through the interaction between professional demands and the social resources available to manage those demands. Career personnel facing high training pressure may remain relatively resilient when their professional, interpersonal, and family environments provide appropriate forms of support. The findings therefore redefine social support from a peripheral well-being resource into a strategic condition for sustainable professional advancement, with direct implications for training design, supervisory practice, workload allocation, mentoring, and organizational career-development policy.

The findings demonstrate that professional advancement demands are meaningfully associated with perceived stress among career personnel participating in advanced training programs. Participants who reported heavier workloads, stronger performance expectations, greater role conflict, limited recovery time, and competing professional responsibilities also tended to experience higher psychological strain. The regression analysis confirmed that professional advancement demands remained a substantial predictor of stress even after relevant demographic and occupational characteristics were taken into account. This pattern indicates that advanced training should not be understood solely as a developmental opportunity, because the same process that strengthens professional competence can also generate significant psychological pressure when training obligations accumulate alongside existing occupational and personal responsibilities.

Multidimensional social support emerged as an important protective resource within this demanding environment. Emotional, instrumental, informational, and appraisal support were each negatively associated with perceived stress, although the strength of their effects differed. Emotional and instrumental support showed the strongest direct protective associations, suggesting that participants benefit particularly from encouragement, understanding, practical assistance, workload flexibility, and help in managing competing responsibilities. Informational and appraisal support also contributed to lower stress, although their influence was comparatively smaller. The findings therefore support the view that social support should not be treated as a uniform resource because different dimensions appear to operate through distinct psychosocial mechanisms.

The moderation analysis provides the most important empirical contribution of the study. Emotional, instrumental, and appraisal support significantly weakened the positive relationship between professional advancement demands and perceived stress, while informational support did not demonstrate a statistically reliable buffering effect. Instrumental support produced the strongest interaction effect, indicating that practical assistance becomes particularly valuable when training demands intensify. Participants with high instrumental support experienced a substantially weaker increase in stress as professional demands rose than participants with limited practical assistance. Social support therefore functions not only as a general well-being resource but also as a conditional mechanism that changes how strongly demanding professional circumstances are translated into psychological strain.

The contrast between the high-burden and buffered-advancement profiles further illustrates the practical meaning of the moderation effect. Participants exposed to similarly intensive professional demands reported markedly different stress levels depending on the quality and configuration of support available to them. High-demand participants with limited support experienced greater strain, while those receiving strong emotional and practical assistance maintained substantially lower stress levels despite comparable advancement pressures. This contrast shows that professional demand alone does not fully determine psychological outcomes. The social environment surrounding career advancement plays a critical role in shaping whether advanced training is experienced primarily as manageable growth or as an accumulating burden.

The positive association between advancement demands and stress is consistent with established occupational stress research showing that excessive workload, time pressure, performance expectations, and competing roles can deplete psychological resources. Research

grounded in job demands–resources perspectives has repeatedly demonstrated that demanding work conditions are more likely to produce strain when individuals lack sufficient resources to manage those demands. The present findings extend this logic to advanced professional training, where career personnel simultaneously occupy the roles of employee, learner, organizational member, and often family provider or caregiver. Advanced training therefore represents a distinctive demand context in which occupational and developmental pressures intersect rather than operate independently.

The protective role of social support is also consistent with the stress-buffering hypothesis, which proposes that interpersonal and social resources reduce the negative effects of demanding circumstances on psychological well-being. Prior studies have commonly shown that supportive supervisors, coworkers, family members, and peers are associated with lower stress, burnout, and emotional exhaustion. The current study adds greater precision by distinguishing between different forms of support rather than relying on a single overall support score. Emotional, instrumental, informational, and appraisal support were related but not interchangeable, and their moderating effects differed. This distinction strengthens the argument that the quality of support depends partly on whether the form of assistance matches the type of burden experienced.

The particularly strong buffering effect of instrumental support is consistent with research emphasizing the importance of resource substitution and practical assistance under high-demand conditions. Career personnel in advanced training often understand what is expected of them but struggle with the practical consequences of having insufficient time, overlapping deadlines, continued professional duties, and family obligations. Schedule flexibility, task redistribution, logistical assistance, and tangible help can directly reduce these pressures. Emotional encouragement may improve confidence and coping, but practical support can modify the objective conditions that generate stress. The present findings therefore suggest that instrumental assistance may be especially effective when stress originates from role overload rather than uncertainty alone.

The nonsignificant moderating effect of informational support provides a point of difference from studies that portray advice and guidance as consistently protective under stressful conditions. Informational support was negatively associated with stress, indicating that it remained beneficial, but it did not significantly alter the relationship between professional demands and stress. Participants in structured advanced training programs may already receive substantial formal information through instructors, institutional guidelines, learning platforms, or program administrators. Additional informational assistance may therefore provide diminishing returns once participants understand the requirements but remain constrained by workload, time, or emotional pressure. This finding suggests that the effectiveness of social support depends on contextual fit rather than on the general availability of assistance.

The findings signify that professional advancement carries a psychological cost that is often hidden behind institutional narratives of growth, achievement, and career mobility. Advanced training is typically framed as an investment in human capital and professional competence, yet participants may experience the process as an intensified period of competing expectations. This tension reveals that career development is not automatically synonymous with psychological development. Opportunities for promotion and competence enhancement can become stressful when organizational systems expand expectations without adjusting existing responsibilities. The results therefore signal the need to evaluate advancement programs not only through completion rates and performance outcomes but also through their psychological sustainability.

The findings also signify that resilience during professional training is socially produced rather than purely individual. Participants with similar workloads can experience substantially different stress levels depending on the support surrounding them. This pattern challenges

organizational cultures that interpret adaptation difficulties primarily as weaknesses in personal resilience, motivation, or time management. Stress responses are shaped by the resources embedded in supervisory relationships, peer networks, family environments, and institutional structures. Professional resilience should therefore be understood as an interaction between individual capacities and social conditions rather than as a personal trait that employees either possess or lack.

The multidimensional pattern of social support signifies that supportive environments cannot be created through symbolic encouragement alone. Organizations may publicly express appreciation for personnel pursuing advanced qualifications while continuing to impose unchanged workloads and performance expectations. Such encouragement can provide emotional value, but it may not address the practical mechanisms producing stress. The stronger buffering effect of instrumental support reveals that credible support requires tangible adjustments in working conditions when demands become excessive. Psychological protection therefore depends partly on whether supportive intentions are translated into observable organizational practices.

The variation across support dimensions also signals the importance of support matching. Individuals experiencing emotional uncertainty may benefit most from empathy and reassurance, while those experiencing scheduling conflicts may require practical assistance. Participants facing ambiguous performance expectations may need informational guidance, and those questioning their competence may benefit from constructive appraisal. A universal support intervention is unlikely to address all forms of professional strain equally well. The findings therefore point toward a more differentiated understanding of psychosocial support in which the effectiveness of assistance depends on the correspondence between the stressor and the resource provided.

The theoretical implication of the findings is that research on professional advancement should integrate occupational stress theory with the stress-buffering model of social support. Advanced training is often studied from the perspective of learning effectiveness, competence development, or human resource investment, while psychological burden receives comparatively less attention. The present results demonstrate that professional development outcomes are embedded within a demand–resource process. Training requirements generate pressure, while social resources influence how strongly that pressure affects well-being. A more complete theoretical model of professional advancement should therefore include both developmental benefits and psychosocial costs.

The organizational implication is that institutions should treat support structures as integral components of advanced training rather than optional welfare provisions. Training programs that intensify expectations without adjusting workloads may unintentionally undermine participant well-being and learning quality. Supervisors can reduce this risk through schedule flexibility, temporary task redistribution, clearer priority setting, and recognition of periods of peak academic or professional demand. Such measures are especially important because instrumental support demonstrated the strongest buffering effect. Organizations seeking returns from professional development investment should therefore protect the conditions that allow participants to learn without excessive psychological depletion.

The leadership implication concerns the role of supervisors in translating institutional support into everyday practice. Formal policies may state that professional development is encouraged, yet participants may still experience unsupportive conditions when immediate supervisors continue to impose unchanged workloads or fail to acknowledge training obligations. Supervisors can provide both emotional and instrumental support by legitimizing temporary adjustments, offering constructive feedback, and facilitating access to resources. Leadership behavior can therefore determine whether organizational support is experienced as meaningful or merely symbolic. Supportive supervision should be considered part of professional development infrastructure rather than separate from it.

The well-being implication is that stress reduction strategies should not rely exclusively on individual coping interventions. Time-management workshops, resilience training, mindfulness, and self-regulation programs may be useful, but they cannot compensate fully for structural overload. Excessive emphasis on individual coping can shift responsibility away from institutions that create demanding conditions. The findings suggest that effective stress prevention requires simultaneous attention to personal coping capacity and environmental support. Sustainable professional advancement is more likely when organizations strengthen individual skills while also reducing unnecessary burdens and providing relevant social resources.

The strong relationship between professional advancement demands and stress can be explained by resource depletion. Career personnel participating in advanced training must allocate cognitive attention, emotional energy, time, and physical effort across multiple competing roles. Professional duties often remain active while new learning requirements are added, creating a situation in which available resources become increasingly stretched. Stress is likely to rise when individuals perceive that the demands placed upon them exceed the resources available for coping. Advanced training therefore becomes psychologically demanding not simply because the content is difficult but because participation alters the overall balance between obligations and available capacity.

The strong buffering effect of emotional support can be explained through its influence on appraisal and coping. Encouragement, empathy, and interpersonal understanding can reduce the sense that professional challenges must be managed in isolation. Participants who feel supported may interpret difficult training periods as temporary and manageable rather than overwhelming. Emotional reassurance may also strengthen confidence and reduce self-doubt when participants encounter setbacks or demanding evaluations. Such mechanisms help explain why emotional support weakened the association between advancement demands and stress even though it did not directly reduce the objective workload.

The stronger buffering effect of instrumental support can be explained by its capacity to modify the actual conditions generating strain. Practical assistance reduces the number or intensity of competing demands rather than merely changing how those demands are perceived. Flexible work schedules, task redistribution, family assistance, logistical help, and shared responsibilities create additional time and energy that participants can allocate to training. Instrumental support therefore affects both the resource side and the demand side of the stress process. Its stronger moderation effect is consistent with the practical nature of many stressors associated with professional advancement.

The weaker moderating effect of appraisal support and the nonsignificant effect of informational support can be explained by differences in functional relevance. Appraisal support may help participants evaluate their progress and maintain realistic self-perceptions, yet it may have limited capacity to relieve concrete workload pressures. Informational support may become less influential once the training environment already provides clear instructions, formal guidance, and accessible learning resources. Participants may know precisely what must be completed while still lacking the time or emotional resources required to complete it. The findings therefore reinforce the principle that support is most protective when it directly corresponds to the dominant source of strain.

Future professional training programs should incorporate systematic support assessments before and during periods of intensive learning. Institutions can identify participants facing high levels of role conflict, workload pressure, or limited social resources and provide targeted support before stress becomes severe. Periodic monitoring of training demands and well-being could help organizations detect periods when participants require additional flexibility or practical assistance. Such systems would shift professional development from a reactive model of stress management toward a preventive model of psychosocial support.

Future organizational policies should formalize workload accommodation for personnel enrolled in strategically important advanced training. Temporary reductions in routine duties, flexible scheduling, mentoring arrangements, peer-support groups, and protected learning periods can reduce unnecessary conflict between organizational responsibilities and developmental expectations. Family-sensitive policies may also be relevant because career personnel frequently manage substantial responsibilities outside the workplace. Support systems should be designed according to the actual sources of stress rather than assuming that generic encouragement will be sufficient for all participants.

Future research should test the moderation model across different occupational sectors, levels of professional seniority, training formats, and cultural contexts. Longitudinal research would be particularly valuable for determining whether social support protects participants consistently throughout training or becomes more important during specific periods such as examinations, major assignments, competency assessments, or transitions back into the workplace (Sun et al., 2025). Studies should also investigate whether support effects differ between face-to-face, hybrid, and fully online advanced training programs. Such comparisons would clarify the conditions under which particular forms of support become most effective.

Future theoretical development should examine multidimensional social support as part of a broader resource ecology surrounding professional advancement. Social support interacts with personal resilience, organizational justice, workload design, leadership quality, autonomy, family conditions, and career motivation. A more comprehensive model could explain why some individuals thrive under demanding professional development conditions while others experience significant strain despite comparable abilities and aspirations. Successful advancement should ultimately be evaluated not only by whether personnel complete training or achieve promotion, but also by whether the process develops competence without imposing avoidable psychological costs. Professional growth becomes more sustainable when individual ambition is supported by organizational structures that recognize the social and psychological realities of career development.

## CONCLUSION

The most important finding of this study is that professional advancement demands are significantly associated with higher perceived stress among career personnel participating in advanced training programs, yet this relationship changes according to the type and level of social support available. Emotional, instrumental, and appraisal support significantly weakened the relationship between advancement demands and stress, while informational support primarily demonstrated a direct protective effect without a statistically meaningful moderating role. Instrumental support emerged as the strongest buffering dimension, indicating that practical assistance, workload adjustment, schedule flexibility, and tangible help are particularly effective when personnel must manage intensive training alongside continuing occupational and personal responsibilities. These findings demonstrate that stress during professional advancement is not determined by workload alone but by the interaction between developmental demands and the social resources available to manage them.

The principal contribution of this research is conceptual, supported by a methodological approach that treats multidimensional social support as a conditional protective mechanism rather than a single general resource. The study extends the stress-buffering perspective by distinguishing emotional, instrumental, informational, and appraisal support and demonstrating that these dimensions do not operate with equal strength under demanding professional conditions. This framework also contributes to research on career development by conceptualizing advanced training as a dual process that can simultaneously promote

competence and generate psychological burden. Methodologically, the use of hierarchical regression, interaction testing, bootstrapped moderation analysis, and simple-slope examination provides a systematic means of identifying how specific support resources alter the relationship between professional demands and stress. The findings therefore offer a more precise foundation for designing organizational interventions that match particular forms of support with specific sources of training-related strain.

The study is limited by its cross-sectional design, reliance on self-reported measures, purposive sampling, and concentration on career personnel participating in selected advanced training contexts, which restrict causal interpretation and broader generalization. Stress and perceived support may also change across different phases of training, while organizational culture, occupational sector, family responsibilities, career motivation, and individual coping resources may influence the observed relationships. Future research should employ longitudinal and multi-wave designs to examine how support and stress evolve before, during, and after advanced training, while larger multisector and cross-cultural samples would strengthen external validity. Further studies should also investigate additional moderators and mediators, including organizational justice, supervisory support, resilience, work-family conflict, autonomy, and career motivation. Such research would deepen understanding of how professional advancement can be structured to promote competence, career mobility, and organizational performance without imposing avoidable psychological costs on personnel.

#### **DECLARATION OF AI AND AI ASSISTED TECHNOLOGIES IN THE WRITING PROCESS**

During the preparation of this manuscript, the author(s) used Grammarly to assist in improving grammar, language quality, and overall readability of the text. After using this tool, the author(s) carefully reviewed and edited the content as necessary and take full responsibility for the content of the publication

#### **AUTHOR CONTRIBUTIONS**

Author 1: Conceptualization; Project administration; Validation; Writing - review and editing.

Author 2: Conceptualization; Data curation; In-vestigation.

Author 3: Data curation; Investigation.

#### **DECLARATION OF COMPETING INTEREST**

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

#### **REFERENCES**

- Abidin, F. A., Anindhita, V., Sunardy, G. N., Tjandjaja, J. K., Kustimah, & Purba, F. D. (2025). When gratitude and social support make the difference: Buffering the impact of parental role restriction on maternal burnout. *Acta Psychologica*, 260, 105554. <https://doi.org/10.1016/j.actpsy.2025.105554>
- Baquero-Rodriguez, J., Piil, K., Mansouri, A., Jakola, A. S., Karekezi, C., Takami, H., Balogun, J., Drummond, K., Khu, K. J. O., Alverne Freitas De Albuquerque, L., Renovanz, M., Boele, F., & Velásquez, C. (2026). Silent burdens: Global perspectives

- on grief and psychological strain among neuro-oncology neurosurgeons. *Neurosurgical Focus*, 61(2), E13. <https://doi.org/10.3171/2026.5.FOCUS26135>
- Cenkçi, Ş., Çıvgın, U., & Yorulmaz, E. (2024). The Role of Perceived Social Support on Stress, Anxiety, Depression and Care Burden Levels of Caregivers of Cancer Patients: A Turkish Republic of Northern Cyprus (TRNC) Example. *Asian Pacific Journal of Cancer Prevention*, 25(11), 3865–3876. <https://doi.org/10.31557/APJCP.2024.25.11.3865>
- Chen, Q., Chen, S., Yang, J., & Cheng, X. (2025). Professional self-perception of hospital clinical pharmacists and its influencing factors: A systematic review. *BMC Health Services Research*, 25(1), 1410. <https://doi.org/10.1186/s12913-025-13472-4>
- Fakourfar, N., Kilzi, B., Taheri, R., Beuttler, R., & Rao, H. (2026). Implementation of wellness activities in an experiential rotation to promote pharmacy student well-being. *Currents in Pharmacy Teaching and Learning*, 18(8), 102673. <https://doi.org/10.1016/j.cptl.2026.102673>
- Feng, Z. (2025). The relationship between perceived chronic stress and generalized trust in the post-epidemic era: The mediating role of perceived social support and the moderating role of positive coping. *Current Psychology*, 44(8), 7772–7785. <https://doi.org/10.1007/s12144-025-07552-1>
- Finlayson, S., Brull, S., Peñaloza, M. T., & Ciofalo, N. (2025). A Perioperative Clinical Advancement Program to Improve Nurse Recruitment and Retention. *AORN Journal*, 121(4), 245–256. <https://doi.org/10.1002/aorn.14318>
- Gao, H., Sun, X., Zheng, D., Chen, H., Yu, X., & Hou, J. (2026). Profiles and Networks: A Person-Centered Analysis of Emotional Labor, Burnout, and Change Fatigue Among Chinese Oncology Nurses. *Journal of Nursing Management*, 2026(1), 4262055. <https://doi.org/10.1155/jonm/4262055>
- Gil-Almagro, F., Carmona-Monge, F. J., García-Hedra, F. J., & Peñacoba-Puente, C. (2024). Headaches in Healthcare Workers: A Prospective Study of Precipitating and Maintenance Variables and Their Relationship with Burnout as a Post-COVID Syndrome. *Neurology International*, 16(6), 1464–1480. <https://doi.org/10.3390/neurolint16060109>
- Huang, J.-G., Xu, C.-H., Shi, Y.-M., Jiang, J., Huang, F.-M., & Xu, L.-L. (2025). The Chain Mediating Role of Hope and Posttraumatic Growth Between Social Support and Psychological Distress Among Lung Cancer Patients. *Cancer Management and Research*, Volume 17, 1399–1419. <https://doi.org/10.2147/CMAR.S522791>
- Johnson, M. S., Skjerdingsstad, N., Ebrahimi, O. V., Hoffart, A., & Johnson, S. U. (2024). Fear of giving birth alone: Experiences of psychological distress, symptoms of anxiety and depression, and coping- strategies of childbearing women during COVID-19. *Midwifery*, 131, 103951. <https://doi.org/10.1016/j.midw.2024.103951>

- Kulari, G. (2025). All the lonely people, where do they all come from: Age moderating the mediation effect of loneliness among Portuguese students. *Education + Training*, 67(1), 75–89. <https://doi.org/10.1108/ET-12-2023-0525>
- Larsson, I., Ahlstrand, I., Larsson, M., Pennbrant, S., Ekman, A., & Hallgren, J. (2025). Health-promoting resources and workplace experiences among newly graduated healthcare and social work professionals – a multicentre cross-sectional study. *BMC Health Services Research*, 25(1), 617. <https://doi.org/10.1186/s12913-025-12782-x>
- Leng, Q. L., Maeda, S. A., Chang, M., Pan, M., Allen, S., Lafferty, M., & McCully, B. H. (2026). Asian American Women Healthcare Professionals’ Experiences of Workplace Bias. *Journal of General Internal Medicine*. <https://doi.org/10.1007/s11606-026-10424-4>
- Lin, B., Ye, Z., Ye, Y., Wang, K., & Zhang, Y. (2024). The effect of childhood emotional abuse and neglect on disturbed dreaming frequency: The important role of rumination and perceived social support. *Dreaming*, 34(4), 318–327. <https://doi.org/10.1037/drm0000270>
- Lincoln, K. D., & Wang, F. (2026). Caregiving Stress and Sleep Health: Exploring the Influence of Religious Involvement and Negative Social Interactions. *Sociological Focus*, 59(3), 334–352. <https://doi.org/10.1080/00380237.2026.2688425>
- Liu, P. L., & Zhou, Y. (2026). Theorizing multidimensional interventions to mitigate cyberchondria: The roles of ehealth literacy, online patient-provider communication, and social support. *Information, Communication & Society*, 1–24. <https://doi.org/10.1080/1369118X.2026.2622339>
- Liu, W., Thompson, P. A., Gray, K. M., & Hastings, R. P. (2024). Child behavior problems and parental psychological distress in Chinese families of children with autism: The putative moderating role of parental social support and cultural values. *Autism Research*, 17(5), 1016–1026. <https://doi.org/10.1002/aur.3125>
- Liu, Y., Peng, J., Ding, J., Wang, J., Jin, C., Xu, L., Zhang, T., & Liu, P. (2025). Anxiety mediated the relationship between bullying victimization and internet addiction in adolescents, and family support moderated the relationship. *BMC Pediatrics*, 25(1), 8. <https://doi.org/10.1186/s12887-024-05348-z>
- Maabreh, R. S., Rababa, M., Al-Za’areer, M. S., Elshatarat, R. A., Saleh, Z. T., Eltayeb, M. M., Oleimat, B., Alhumaidi, B. N., Aboelmagd, A. N., & Ebeid, I. A. (2025). Prevalence, severity, and associated factors of post-traumatic stress disorder (PTSD) symptoms among parents of children diagnosed with autism: A cross-sectional study. *Journal of Education and Health Promotion*, 14(1). [https://doi.org/10.4103/jehp.jehp\\_1482\\_24](https://doi.org/10.4103/jehp.jehp_1482_24)
- Malamateniou, C., Hardy, M., M. Knapp, K., & Ramlaul, A. (Eds.). (2026). *Artificial Intelligence for Radiographers: Basic Principles, Clinical Applications and Implementation Considerations*. Springer Nature Switzerland. <https://doi.org/10.1007/978-3-032-05080-9>

- Malinauskiene, V., & Malinauskas, R. (2026). Relationship Between Perceived Stress and Anxiety in High School Senior Students: The Mediating Role of Social Support and the Moderating Influence of Lifestyle. *Healthcare*, 14(2), 263. <https://doi.org/10.3390/healthcare14020263>
- Moulton, K. L., Izuno, S. A., Prendergast, N., Battaglioli, N., & Sebok-Syer, S. S. (2024). Alleviating stressfeeding in the emergency department: Elucidating the tensions induced by workplace lactation space issues. *JACEP Open*, 5(4), e13226. <https://doi.org/10.1002/emp2.13226>
- Nam, S., & Lee, J. (2026). Secondary Traumatic Stress and Post-Traumatic Stress Symptoms in Nurses: Mediating Role of Psychological Distress and Moderating Role of Emotional Support. *Journal of Advanced Nursing*, 82(8), 7827–7835. <https://doi.org/10.1111/jan.70390>
- Pan, B., Gong, Y., Guo, M., Wang, X., Lu, H., Lin, Z., & Zhang, B. (2025). Negative Affect and Impulsivity in Adolescents with Non-Suicidal Self-Injury: The Moderating and Mediating Roles of Perceived Social Support. *Neuropsychiatric Disease and Treatment, Volume 21*, 1–13. <https://doi.org/10.2147/NDT.S498951>
- Park, J., Damaske, S., Choi, J., McHale, S., Rosenberger, J., & Yin, J. (2025). Job Tenure and Gendered Perception of Workplace Challenges in Gendered Organizations: Computer Science, Engineering, and Mathematics Fields. *Socius: Sociological Research for a Dynamic World*, 11, 23780231251376456. <https://doi.org/10.1177/23780231251376456>
- Patel, C. B., Heaven, C., Waterhouse, D., Roberts, M., & Shetty, S. (2024). Examination of burnout for severity and risk factors in New Zealand otolaryngologists: A cross-sectional study. *Australian Journal of Otolaryngology*, 7, 0–0. <https://doi.org/10.21037/ajo-23-24>
- Pavić, J., Krznar, M., Čukljek, S., Sedić, B., Ozimec Vulinec, Š., & Kovačević, I. (2024). The Association between Healthcare Satisfaction and Social Support and Stress, Depression, and Life Satisfaction in Female Caregivers: The Moderating Role of Dependence of a Sick Child. *International Journal of Environmental Research and Public Health*, 21(9), 1245. <https://doi.org/10.3390/ijerph21091245>
- Qi, X., & Xu, H.-N. (2024). The impact of nurses' stress situation coping on somatization: A mediated moderation model. *PeerJ*, 12, e18658. <https://doi.org/10.7717/peerj.18658>
- Riyadi, R., Fatimah, J. M., & Hasrulah, H. (2025). Smartphone-mediated communication and mental health: The moderating role of social support among university students in Makassar, Indonesia. *Frontiers in Human Dynamics*, 7, 1658154. <https://doi.org/10.3389/fhumd.2025.1658154>
- Sakarya, H. (2026). Rethinking Military Family Support: Insights from the Deployment Experiences of Military Spouses in Türkiye. *Journal of Evidence-Based Social Work*, 1–17. <https://doi.org/10.1080/26408066.2026.2660954>

- Sasson-Shoshan, T., Vitman Schorr, A., Govrin-Yehudain, Y., Klugerman, D., Cohen, S., Yehuda, I., Abas, F., Ayal, M., Chiko, S., & Lev-Wiesel, R. (2026). The Role of Professional Mission in Buffering Secondary Traumatization. *Social Work*, 71(3), 261–271. <https://doi.org/10.1093/sw/swag027>
- Sawaya, M., Brome, D., & Merhej, R. (2026). The Interplay of Attachment Styles, Resilience, and Perceived Social Support on Mental Health Outcomes among Lebanese People. *Adversity and Resilience Science*, 7(1), 7. <https://doi.org/10.1007/s42844-026-00193-8>
- Schaepe, K. S., Shanafelt, T. D., Dyrbye, L. N., Matt-Hensrud, N., & West, C. P. (2025). When structure creates strain: Physician perspectives on work-home interference, professional relationships, and organizational resilience. *SSM - Qualitative Research in Health*, 7, 100558. <https://doi.org/10.1016/j.ssmqr.2025.100558>
- Shulyaev, K., Edelstein, O. E., Tur-Sinai, A., Bachner, Y. G., King, A., & Band-Winterstein, T. (2025). Balancing the Self: Intervention for Family Caregivers Through the Lens of Terror Management Theory. *Qualitative Health Research*, 10497323251387015. <https://doi.org/10.1177/10497323251387015>
- Sun, Y., Wang, W., Yan, F., Xie, X., Cai, M., Xu, F., Qian, Y., Xiao, Y., Xu, C., & Zhao, W. (2025). Related factors of turnover intention among general practitioners: A cross-sectional study in 6 provinces of China. *BMC Primary Care*, 26(1), 37. <https://doi.org/10.1186/s12875-025-02728-x>
- Tedeschi, R. (2025). The paradox of medical dramas: Global aspirations versus realities. *BJPsych Advances*, 31(1), 62–64. <https://doi.org/10.1192/bja.2024.56>
- Tiring, O., & Yüksel, M. (2025). The moderating role of perceived social support and perceived stress in the relationship between executive functions and alcohol use among university students. *Alcohol and Alcoholism*, 60(6), agaf063. <https://doi.org/10.1093/alcac/agaf063>
- V Losansky, S Arnhold, J Aschenbach, T Göbel, K Fey, C Kleinsorgen, C Mülling, E Schaper, J Seeger, A Tipold, & M Doherr. (2024). Umfrage bei Tierärztinnen und Studierenden zur veterinärmedizinischen Lehre und zukünftigen Studienausrichtung in Deutschland: Schlüsselkompetenzen und Handlungsempfehlungen. *Berliner und Münchener Tierärztliche Wochenschrift*, (Berliner und Münchener Tierärztliche Wochenschrift 137, 1–13), 0–0. <https://doi.org/10.2376/1439-0299-2024-1>
- Wendlandt, B., Edwards, T., Hughes, S., Gaynes, B. N., Carson, S. S., Hanson, L. C., & Toles, M. (2024). Novel Definitions of Wellness and Distress among Family Caregivers of Patients with Acute Cardiorespiratory Failure: A Qualitative Study. *Annals of the American Thoracic Society*, 21(5), 782–793. <https://doi.org/10.1513/AnnalsATS.202310-904OC>
- Yang, C., Wu, D., Yang, H., Yin, H., & Wang, S. (2025). Psychological distress and turnover intention among Chinese nurses: A moderated mediation model of job satisfaction

and social support. *BMC Nursing*, 24(1), 743. <https://doi.org/10.1186/s12912-025-03445-7>

Yang, Y., Wen, M., & Salari, S. (2024). Elder mistreatment and psychological resilience: The moderating role of social support. *Journal of Elder Abuse & Neglect*, 36(5), 423–438. <https://doi.org/10.1080/08946566.2024.2351005>

Yaqoob, N., Ahsan, S., & Kiani, S. (2025). Moderating Role of Social Support on the Relationship between Depression and Suicide Intent among Self-harm Inpatients. *Pakistan Journal of Psychological Research*, 40(2), 373–382. <https://doi.org/10.33824/PJPR.2025.40.2.22>

Zhang, C., Zhai, D., & Wang, Q. (2026). Emotional processing deficits mediate the association between adverse childhood experiences and CPTSD symptoms: The moderating role of perceived social support. *Frontiers in Psychiatry*, 17, 1834482. <https://doi.org/10.3389/fpsy.2026.1834482>

Zhu, C., Peng, L., & Li, S. (2025). The impact of mental toughness on subjective well-being among Chinese college students in the post-COVID-19 era. *Frontiers in Public Health*, 13, 1556096. <https://doi.org/10.3389/fpubh.2025.1556096>

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