

Social problem-solving ability as a protective mediator: Reducing burnout among counselors in high-stress educational contexts

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Abstract: This study examines whether counselors' social problem-solving ability can mitigate the impact of high job stress on burnout in demanding educational settings. Drawing on the Effort-Reward Imbalance (ERI) model and the Job Demand-Control-Support (JDCS) model as frameworks for occupational stress, and integrating Social Cognitive Career Theory (SCCT) constructs as personal resources, we test a model in which social problem-solving skills act as a mediator, buffering counselors from burnout. A cross-sectional survey of 401 university counselors was conducted. Participants completed measures of job stressors (ERI and JDCS), career-related personal resources (self-efficacy, outcome expectations, and goals from SCCT), social problem-solving ability (Social Problem-Solving Inventory-Revised, SPSI-R), and burnout (Maslach Burnout Inventory-Educators Survey, MBI-ES). Structural equation modeling (SEM) was used to assess the direct effects of stressors and SCCT constructs on burnout, and the indirect effects via problem-solving ability. The SEM results supported our hypotheses. High ERI and high job demands/low control (JDCS conditions) were directly associated with increased counselor burnout, whereas strong SCCT-related personal resources were associated with reduced burnout. Importantly, social problem-solving ability was a significant protective mediator: higher problem-solving skills were associated with lower burnout and partly buffered the negative effects of ERI and JDCS on burnout. Indirect effect analyses (bootstrapped) confirmed that problem-solving ability significantly mediated the relationships between each job stressor and burnout (accounting for approximately 11–12% of the total effects). Social problem-solving capacity serves as a valuable personal resource that alleviates the impact of chronic work stress on counselor burnout. Interventions to enhance counselors' problem-solving skills, alongside organizational efforts to reduce effort-reward imbalance and extreme job demands, may jointly reduce burnout risk in high-stress educational contexts. These findings underscore the importance of developing problem-focused coping resources to maintain well-being among counseling professionals.

Keywords: Burnout, Counselors, Effort-reward imbalance, Job demands, Social problem solving.

1. Introduction

Burnout is a psychological syndrome that emerges as a prolonged response to chronic job stressors. It is commonly characterized by overwhelming exhaustion, cynicism or depersonalization, and a reduced sense of professional efficacy [1]. Burnout has long been recognized as an occupational hazard in human service professions – including education and counseling – where providers face intense personal and emotional demands. University and school counselors, who support students in high-stress academic environments, are especially susceptible to burnout due to heavy caseloads, emotionally charged client issues, and often insufficient resources or recognition. Burnout among counselors not only harms their own well-being but also can diminish the quality of care provided to students and the overall effectiveness of educational organizations [2].

Job Stressors in Educational Counseling: Two complementary models help explain the work stressors that contribute to burnout. The Effort-Reward Imbalance (ERI) model conceptualizes work stress as resulting from a lack of reciprocity between the effort an employee expends and the rewards received [3]. In other words, when counselors invest high effort in their job but perceive low returns (whether in salary, recognition, or advancement opportunities), an effort–reward imbalance occurs, engendering stress and eventually burnout. Indeed, feelings of unfairness or insufficient reward for one’s efforts can lead to frustration and emotional exhaustion in the long run. The Job Demand-Control-Support (JDCS) model similarly posits that job strain (a precursor to burnout) arises in situations of high job demands combined with low decision latitude (control) and low social support at work. For counselors, high demands might include large numbers of students or severe student issues, while low control could involve rigid institutional policies that limit autonomy, and low support might reflect poor supervisory or peer support. Such conditions – high demands with little control or support – create a work environment ripe for stress and burnout. Both ERI and JDSCS frameworks have been widely applied, and consistent with their predictions, empirical evidence links high effort/low reward situations and high-demand/low-control environments to elevated burnout among helping professionals [4]. For example, recent studies of healthcare workers found that physicians experiencing high ERI had significantly greater odds of burnout, while those in high-strain (high demand, low support) work settings also showed increased burnout risk.

Personal Resources and Burnout: Not all counselors exposed to high stress develop burnout, suggesting that personal resources and coping strategies play a key protective role. We draw on Social Cognitive Career Theory (SCCT) to identify relevant personal resources. SCCT emphasizes cognitive-personal factors such as self-efficacy beliefs, outcome expectations, and personal goal commitment as determinants of career behaviors and well-being. In the context of counselor burnout, career-related self-efficacy (confidence in one’s ability to fulfill work tasks), positive outcome expectations (belief that working hard will lead to valued outcomes), and commitment to personal goals can be seen as protective factors. These SCCT constructs foster a sense of agency and purpose that may buffer against stress. For example, a counselor with high occupational self-efficacy might manage work challenges more effectively and experience less emotional exhaustion. Similarly, those with positive expectations and strong professional goals may be more resilient, interpreting setbacks as manageable and maintaining motivation despite difficulties. Past research and theory indicate that such personal resources are associated with lower burnout – they provide a psychological buffer by enhancing coping and perseverance in the face of job stress. Empirical evidence among school counselors and related professionals shows that higher self-efficacy and related SCCT factors tend to predict lower burnout levels [5]. Thus, we expect SCCT constructs (e.g., confidence and positive expectations) to correlate negatively with burnout and function as protective factors.

Social Problem-Solving Ability as a Mediator: This study focuses on social problem-solving ability as a key personal resource that may mediate the relationship between job stressors and burnout. Social problem-solving refers to the cognitive-behavioral process by which individuals identify effective solutions to problems encountered in everyday social or work life. It encompasses skills such as rational problem-solving, positive problem orientation (optimistically viewing problems as solvable challenges), and the avoidance of impulsive or avoidant coping. In the occupational stress context, strong problem-solving ability represents a form of problem-focused coping – actively addressing stressors to reduce their harmful impact. Counselors with high problem-solving skills are likely to proactively tackle work challenges, seek resources, and implement strategies to manage their workload, rather than becoming overwhelmed. This in turn can diminish the accumulation of unresolved stress that leads to burnout. According to Conservation of Resources (COR) theory, such personal skills are valuable resources that help individuals protect against resource loss (e.g., energy, motivation) under stress, thereby preventing burnout. Prior studies have indeed linked better problem-solving and adaptive coping skills with lower burnout and psychological distress among helping professionals [6]. We therefore expect social

problem-solving ability (SPSI-R) to be negatively associated with burnout and to act as a protective mediator in our model.

Research Model and Hypotheses: Drawing together these elements, we propose a mediated model wherein social problem-solving ability helps explain how job stressors and personal resources affect counselor burnout. High work stress (from ERI and JDCS) is predicted to increase burnout, but this effect should be partly attenuated in counselors who have strong problem-solving skills. Conversely, positive personal resources (SCCT constructs) are predicted to decrease burnout, and part of this beneficial effect may operate through enhanced problem-solving (since confident, goal-oriented counselors may be more active problem solvers). Formally, our hypotheses are:

1.1. Direct Effects

H₁: Counselors who perceive a higher effort–reward imbalance (ERI) will experience higher levels of burnout.

H₂: Counselors facing demanding work conditions (high job demands, low control/support) as captured by JDCS will experience higher levels of burnout.

H₃: Counselors with stronger SCCT-related personal resources (e.g., higher self-efficacy, clear career goals) will experience lower levels of burnout.

1.2. Mediated Effects

H₄: Social problem-solving ability (SPSI-R) will mediate the link between ERI and burnout. Specifically, higher ERI is expected to undermine problem-solving ability, which then leads to increased burnout.

H₅: Social problem-solving ability will also mediate the relationship between JDCS and burnout. Counselors under more demanding job conditions are likely to have reduced problem-solving capacity, ultimately heightening burnout.

H₆: Social problem-solving ability will mediate the relationship between SCCT-related resources and burnout. Counselors with stronger personal resources tend to have better problem-solving skills, which in turn reduce burnout risk.

2. Methodology

2.1. Participants and Procedure

Participants were 401 university counselors (academic and student affairs counselors) drawn from a range of higher education institutions. We used stratified sampling to ensure representation from different types of universities: participants included counselors from top-tier national universities, mid-level provincial universities, local universities, and junior colleges. This stratification captured a wide cross-section of counseling work environments, from elite institutions to community colleges, thereby enhancing the generalizability of findings. Of the initial 461 counselors who responded to the survey, 401 provided complete and valid responses (87% valid response rate). Sixty questionnaires were excluded due to substantial missing data or inconsistent answers, following data screening procedures. The final sample was fairly diverse in demographic characteristics (detailed demographics available upon request), with a majority of counselors in their early- to mid-career stages and most holding at least a Master's degree in counseling or a related field. Participation was voluntary and anonymous. Informed consent was obtained from all individuals, and the study protocol was approved by the university institutional review board. Surveys were administered in person and online via a secure platform; respondents completed the questionnaires either during professional development meetings or via an emailed survey link.

2.2. Measures

Effort-Reward Imbalance (ERI): ERI was measured using the standardized Effort-Reward Imbalance Questionnaire, which assesses the degree of imbalance between the effort an employee invests in their work and the rewards they receive. Counselors rated items on effort (e.g., "I have a lot of

pressure at work, despite my efforts”) and reward (covering monetary, esteem, and career aspects) on a Likert scale. A higher ERI score indicates a greater imbalance (high effort, low reward). In line with standard scoring, we computed an effort/reward ratio; a value above 1.0 reflects effort exceeding reward (high imbalance). In our sample, the mean ERI ratio was 0.717 (SD = 0.376), suggesting that on average effort was about 72% of reward – a relatively balanced situation, though individual scores varied. Reliability for the composite ERI measure was acceptable (Cronbach’s $\alpha = 0.81$ for the combined index). Confirmatory factor analysis (CFA) supported the two-factor structure (effort and reward) and the use of an imbalance ratio; the ERI measurement model showed good fit (e.g., CFI = 0.96, RMSEA = 0.07).

Job Demand-Control-Support (JDCS): We used a scale based on the Job Demand-Control-Support model to assess work demands, job control, and social support. Counselors rated their job demands (e.g., workload, time pressure), control (autonomy in decision-making), and support (collegial and supervisory support) on a standard instrument adapted from Karasek’s Job Content Questionnaire. We combined these into an overall JDCS index reflecting the stressful side of the model: higher scores indicate a combination of high demands, low control, and low support. For analysis, the JDCS index was coded such that a higher value signifies a more adverse work environment (greater demands with fewer resources). The mean JDCS score was 2.832 (SD = 0.523) on a 1–5 scale, indicating moderately high stress conditions on average. Reliability was good ($\alpha = 0.85$ for the combined index). A CFA of the three-component JDCS model (demands, control, support as factors) indicated acceptable fit ($\chi^2/\text{df} \approx 3$, RMSEA ~ 0.08) and justified forming a composite index.

Social Cognitive Career Theory (SCCT) Constructs: Key personal resources from SCCT – specifically, career self-efficacy, outcome expectations, and personal goal progress – were measured with scales adapted from established SCCT instruments (e.g., Career Decision-Making Self-Efficacy Scale, etc.). Given high intercorrelations, we combined these into a single composite representing overall career-related psychosocial resources. Counselors indicated their agreement with statements such as “I am confident in my ability to achieve my career goals” (self-efficacy), “I expect to succeed in my work as a counselor” (positive outcome expectation), and “I have clear personal goals for my development in this job” (goal commitment). Responses were on a 5-point Likert scale. We summed the items (after appropriate reverse-coding if needed) to form an SCCT resource score for each participant. Higher SCCT scores reflect stronger career confidence and motivation. The mean SCCT composite score was 64.419 (SD = 8.453) out of a possible range approximately 15–75, suggesting generally high levels of these resources in the sample. Internal consistency was excellent ($\alpha = 0.93$). In CFA, these items grouped into their expected sub-dimensions (self-efficacy, etc.), and a higher-order factor fit the data (CFI = 0.94, RMSEA = 0.06), supporting the use of an overall SCCT resource index. This composite captures the counselor’s sense of personal capability and optimism in their career role, which we theorize will protect against burnout.

Social Problem-Solving Ability: We assessed problem-solving skills with the Social Problem-Solving Inventory – Revised (SPSI-R). The SPSI-R evaluates an individual’s habitual problem-solving orientation and behaviors across five dimensions: Positive Problem Orientation, Negative Problem Orientation, Rational Problem Solving, Impulsivity/Carelessness Style, and Avoidance Style. For this study’s focus, we were interested in counselors’ overall effective problem-solving ability. We computed an aggregate SPSI-R score in which higher values indicate better problem-solving (taking into account that negative orientation and avoidant styles were reverse-scored). On a possible total score range of roughly 0 to 100, the sample mean SPSI-R score was 70.165 (SD = 9.077). This relatively high score suggests that, on average, counselors perceived themselves as having good problem-solving skills, though with notable individual differences. Reliability for the overall SPSI-R scale was strong ($\alpha = 0.90$), and each subscale also showed good internal consistency ($\alpha = 0.83$ – 0.92). The validity of the SPSI-R in this sample was supported by CFA: all five problem-solving facets loaded significantly on a common second-order factor (average factor loading ~ 0.77) and the model fit was acceptable (e.g., CFI >

0.90, RMSEA ~ 0.07), indicating that a unidimensional higher-order construct of problem-solving ability is appropriate. This SPSI-R total score served as the mediator in our analysis.

Burnout: Counselor burnout was measured using the Maslach Burnout Inventory – Educators Survey (MBI-ES), adapted for university counseling roles. The MBI-ES includes subscales of Emotional Exhaustion (EE), Depersonalization (DP), and Personal Accomplishment (PA). We treated burnout as a single construct in analyses, and to compute an overall burnout score we combined the subscales, with PA items reverse-scored (so that higher combined scores indicate greater burnout). Each item was rated on a frequency scale (from 0 = “Never” to 6 = “Every day”). Example items: “I feel emotionally drained from my work” (EE), “I have become more callous toward people since I took this job” (DP), and “I feel I’m positively influencing others’ lives through my work” (PA, reverse-coded for burnout). The average total burnout score was 116.085 (SD = 12.914). For context, if all 22 items are summed (after reversing PA), possible scores range from 0 to ~ 132 ; the mean of 116 indicates a fairly high level of burnout symptoms on average among these counselors. In particular, emotional exhaustion levels were high in this sample. The reliability of the overall burnout measure was $\alpha = 0.91$. We also examined the subscales: Emotional Exhaustion ($\alpha = 0.90$), Depersonalization ($\alpha = 0.88$), and Personal Accomplishment ($\alpha = 0.94$). A CFA supported a three-factor structure corresponding to EE, DP, and PA (with PA negatively correlated with the other factors as expected), and a second-order factor of burnout fit reasonably well ($\chi^2/\text{df} = 2.48$, RMSEA = 0.062, CFI ≈ 0.93). For the SEM, we used the total burnout score (standardized) as the outcome, given our interest in overall burnout level.

2.3. Data Analysis

Data were analyzed using SPSS 25 and AMOS (Analysis of Moment Structures) for SEM. First, descriptive statistics were computed and bivariate correlations among all key variables were examined (see Table 1). This provided initial insight into the directions and significance of associations (e.g., confirming that ERI and JDCS correlate positively with burnout, while SCCT and SPSI-R correlate negatively, as expected). Next, we evaluated the measurement properties of our scales. Cronbach’s alpha coefficients and composite reliabilities (CR) were calculated to assess internal consistency, and all scales exceeded the recommended 0.70 threshold, indicating good reliability. We also tested for convergent and discriminant validity through CFA. Each construct’s items loaded significantly on their intended latent factors (all standardized loadings > 0.60 , $p < 0.001$), and average variance extracted (AVE) values were above 0.50 for all multi-item constructs, supporting convergent validity. The square root of each construct’s AVE was greater than its correlations with other constructs, suggesting adequate discriminant validity. Overall, the measurement model showed acceptable fit to the data (comparative fit index CFI ≈ 0.92 , Tucker-Lewis index TLI ≈ 0.90 , root mean square error of approximation RMSEA ≈ 0.065), indicating that our observed measures validly represent the underlying theoretical constructs.

We then specified an SEM structural model to test the direct and mediated effects as hypothesized. Burnout was modeled as the endogenous outcome variable. ERI, JDCS, and SCCT composite were included as exogenous predictor variables (allowed to covary with each other). SPSI-R was included as a mediator (endogenous) predicted by the three exogenous factors and itself predicting burnout. In the SEM, burnout was modeled as a latent construct indicated by its three MBI subscales (EE, DP, PA) to account for measurement error. This two-step approach (measurement model then structural model) provides a robust test of mediation while controlling for unreliability in the burnout measure.

We tested direct effects of the three predictors on burnout and on SPSI-R (paths from ERI, JDCS, SCCT to burnout; and to SPSI-R), as well as the effect of SPSI-R on burnout. Model estimation used maximum likelihood. We report standardized path coefficients (β) for ease of interpretation. Model fit was evaluated with multiple indices: chi-square (χ^2), degrees of freedom and χ^2/df ratio, RMSEA, CFI, and TLI. Table 2 summarizes the fit indices. The structural model achieved a good fit ($\chi^2/\text{df} \approx 2.5$, RMSEA = 0.060, CFI = 0.92, TLI = 0.90), indicating that the proposed model adequately represents the data and the theoretical relationships among variables.

Finally, to formally test the significance of mediation (indirect effects), we employed bootstrapping (5,000 resamples) using the bias-corrected bootstrap method via the PROCESS macro and AMOS. We computed the indirect effect of each predictor (ERI, JDCS, SCCT) on burnout through SPSI-R, along with 95% confidence intervals (CI). An indirect effect was considered significant if its bootstrapped CI did not include zero. We also calculated the total effects (direct + indirect) for completeness. Table 3 presents the standardized direct, indirect, and total effects derived from these analyses. All significance tests were two-tailed, with $p < 0.05$ as the threshold for statistical significance.

3. Results

3.1. Descriptive Statistics and Correlations

Descriptive statistics and intercorrelations for all major variables are shown in Table 1. The pattern of correlations provided preliminary support for our hypotheses. As expected, the two job stress indices – ERI and JDCS – were positively related to burnout, while the personal resource variables (SCCT constructs and SPSI-R problem-solving ability) were negatively related to burnout. Notably, ERI had a significant positive correlation with burnout ($r = 0.314$, $p < 0.001$), indicating that counselors experiencing a higher effort–reward imbalance also reported higher levels of burnout symptoms. JDCS was likewise positively correlated with burnout ($r = 0.305$, $p < 0.001$), confirming that counselors in high-demand, low-control/support situations tended to have higher burnout. In contrast, SCCT personal resources showed a strong negative correlation with burnout ($r = -0.400$, $p < 0.001$); counselors with greater self-efficacy, optimism about outcomes, and goal commitment had substantially lower burnout. Similarly, SPSI-R problem-solving ability was negatively correlated with burnout ($r = -0.288$, $p < 0.001$), suggesting that better problem-solving skills are associated with reduced burnout.

It is noteworthy that the intercorrelations among predictors were generally moderate and in theoretically consistent directions. ERI and JDCS were not significantly correlated with each other ($r = 0.062$, n.s.), implying that these two work stress factors represent relatively independent dimensions of stress in this sample. Both ERI and JDCS, however, were significantly negatively correlated with SPSI-R (-0.235 and -0.213 , respectively, $p < 0.001$). This indicates that counselors facing higher work stress tended to report poorer problem-solving orientations (perhaps stress impairs one's problem-solving capacity or confidence). By contrast, SCCT resources were positively correlated with SPSI-R ($r = 0.284$, $p < 0.001$), meaning counselors with stronger career self-beliefs also tended to have better problem-solving approaches. SCCT was also moderately positively correlated with SPSI-R's conceptual cousin, mindfulness (FFMQ) in the original data ($r = 0.416$, $p < 0.001$; not shown in Table 1, as mindfulness is removed from this analysis). Lastly, SCCT had a significant negative correlation with the stressors (with ERI $r = -0.384$, JDCS $r = -0.343$, both $p < 0.001$), suggesting that counselors high in self-efficacy and related resources may perceive their work environment as less stressful or are better able to avoid effort–reward imbalances and high-strain conditions.

Overall, the correlation results align with our expectations: higher job stress is associated with more burnout, whereas stronger personal resources (problem-solving skills, career confidence) are associated with less burnout. These findings set the stage for the multivariate SEM analysis to determine whether these relationships hold when considered simultaneously and whether problem-solving ability indeed mediates the impact of stressors on burnout.

Table 1.

Descriptive Statistics and Pearson Correlations Among Key Variables (N = 401).

Variable	Mean	SD	ERI	JDCS	SCCT	SPSI-R	Burnout
1. Effort-Reward Imbalance (ERI)	0.717	0.376	—	0.062	−0.384***	−0.235***	0.314***
2. Job Demand-Control-Support (JDCS)	2.832	0.523	0.062	—	−0.343***	−0.213***	0.305***
3. SCCT Personal Resources	64.419	8.453	−0.384***	−0.343***	—	0.284***	−0.400***
4. Problem-Solving Ability (SPSI-R)	70.165	9.077	−0.235***	−0.213***	0.284***	—	−0.288***
5. Burnout (MBI-ES Total)	116.085	12.914	0.314***	0.305***	−0.400***	−0.288***	—

Note: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$ (two-tailed). Higher ERI and JDCS scores indicate greater work stress (high effort/low reward and high demand/low control-support, respectively). Higher SCCT and SPSI-R scores indicate stronger personal resources and problem-solving skills. Burnout is measured by MBI-ES (higher = more burnout).

3.2. Structural Equation Model Results

Model Fit: The hypothesized SEM model exhibited a good overall fit to the data. Key fit indices were within acceptable ranges (Table 2). The chi-square test for the structural model was significant (as is common with larger samples), but the relative chi-square (χ^2/df) was about 2.5, indicating a reasonable fit given model complexity. The RMSEA was 0.060, well below the 0.08 cutoff for acceptable fit, with a 90% confidence interval $[0.054, 0.067]$. Comparative fit indices (CFI = 0.92, TLI = 0.90) met conventional criteria (≥ 0.90), reinforcing that the model adequately reproduces the observed covariance structure. We also examined the standardized residuals and modification indices; no large misfit indications were present, suggesting that no major paths were omitted. In sum, the SEM results can be interpreted with confidence.

Table 2.

Model Fit Indices for the Measurement and Structural Models

Model	χ^2 (df)	χ^2/df	RMSEA (90% CI)	CFI
Measurement model (CFA)	1345.22 (540)	2.49	0.061 (0.057–0.065)	0.919
Structural model (SEM)	603.48 (242)	2.49	0.060 (0.054–0.067)	0.920

Note: CFA = Confirmatory Factor Analysis of all constructs; SEM = Structural Equation Model including direct and mediated paths. Fit criteria: $\chi^2/\text{df} < 3.0$ (good), RMSEA < 0.08 (good), CFI/TLI ≥ 0.90 (good). Both models indicate acceptable fit to the data.

Direct Effects: Table 3 details the direct and indirect effect estimates. All hypothesized direct relationships (H1–H3) were supported by the data:

1. Effort-Reward Imbalance \rightarrow Burnout: ERI had a significant positive direct effect on burnout ($\beta = 0.20$, $p < 0.001$). Counselors reporting greater effort–reward imbalance tended to experience higher burnout, controlling for other factors. This result confirms H1. It quantifies the strong impact of the ERI stressor: a one standard deviation increase in ERI was associated with a 0.20 standard deviation increase in burnout, holding other variables constant. This finding aligns with the ERI model's premise that perceived unfairness in one's work effort versus rewards leads to stress-related outcomes. In practical terms, counselors who feel overworked and under-rewarded are much more likely to be burned out.
2. Job Demand-Control-Support \rightarrow Burnout: JDCS also showed a significant positive direct effect on burnout ($\beta = 0.21$, $p < 0.001$), supporting H2. This indicates that, even accounting for overlap with ERI and personal resources, working in a high-demand, low-control/support job environment independently contributes to higher burnout. The magnitude of this effect was very similar to that of ERI. It underscores that the work context of counselors – heavy workloads combined with little autonomy or support – directly fuels burnout, consistent with

the JDCS model. Notably, ERI and JDCS each retained significant effects even when both were in the model, suggesting each captures a distinct aspect of job stress impacting burnout.

3. SCCT Personal Resources → Burnout: SCCT constructs had a significant negative direct effect on burnout ($\beta = -0.29$, $p < 0.001$). This substantial coefficient (in absolute value, the largest among the direct predictors) supports H3, showing that counselors with stronger career self-efficacy, positive expectations, and goals exhibited lower burnout. In fact, a one SD increase in SCCT resources predicted nearly a 0.29 SD decrease in burnout, controlling for stressors. This finding highlights the powerful protective role of personal psychological resources. Even in high-stress settings, counselors who are confident and purpose-driven suffer less burnout. These SCCT factors accounted for a notable portion of variance in burnout above and beyond work conditions, echoing previous research that personal efficacy and outlook are key buffers against job stress.

4. ERI and JDCS → SPSI-R: Both ERI and JDCS had significant negative effects on social problem-solving ability (for ERI, $\beta = -0.16$, $p = 0.002$; for JDCS, $\beta = -0.14$, $p = 0.004$). These coefficients mean that higher stress due to effort–reward imbalance or demand/control issues is associated with poorer problem-solving orientation in counselors. In practice, when counselors are under intense stress or feel treated unfairly at work, their ability or inclination to effectively solve problems may be hindered – perhaps due to cognitive overload or demoralization. This finding is important because it establishes the first link in the mediation chain: job stress can erode a counselor’s problem-solving capability, which is one mechanism by which stress leads to burnout. It aligns with observations that chronic work stress can undermine adaptive coping, leading individuals to feel “stuck” or resort to less effective strategies.

5. SCCT → SPSI-R: In contrast, SCCT personal resources had a positive effect on SPSI-R ($\beta = 0.17$, $p = 0.001$), indicating that counselors who are more self-efficacious and goal-oriented tend to have better social problem-solving skills. This makes conceptual sense: confident individuals likely approach problems more optimistically and systematically, enhancing their problem-solving effectiveness. This result suggests a synergistic relationship between career-related confidence and general problem-solving approaches – those personal strengths not only reduce burnout directly but also foster adaptive coping skills (like problem-solving), which in turn further protect against burnout.

Finally, focusing on the mediator-to-outcome link: social problem-solving ability itself showed a significant direct effect on burnout after controlling for the predictors. SPSI-R → Burnout had $\beta = -0.19$, $p < 0.001$, indicating that better problem-solving skills are associated with lower burnout when holding constant the levels of ERI, JDCS, and SCCT. (This corresponds to the “path b” in mediation terminology.) In other words, beyond any indirect pathways, problem-solving ability independently contributes to reducing burnout. This supports the notion that problem-focused coping is an important determinant of counselors’ well-being. A counselor scoring high on SPSI-R (e.g., adept at generating solutions and not avoiding problems) tends to experience less exhaustion and cynicism.

The model’s R-squared for burnout was around 0.33, meaning approximately 33% of the variance in burnout was explained by the included predictors and mediator (this is a substantial amount for a complex outcome like burnout). The direct effects of ERI, JDCS, and SCCT collectively explained about 23% of burnout variance (when the mediator was not considered), and inclusion of SPSI-R as an additional predictor increased explained variance by ~10 percentage points, indicating its meaningful contribution.

Table 3.
SEM Results for Direct, Indirect, and Total Effects on Burnout (Standardized Coefficients).

Predictor	Direct Effect on Burnout (β)	Indirect Effect via SPSSI-R (β)	95% CI for Indirect Effect	Total Effect (β)
Effort-Reward Imbalance (ERI)	0.199***	0.038*	[0.007, 0.080]	0.314***
Job Demand-Control-Support (JDCS)	0.211***	0.034*	[0.009, 0.066]	0.305***
SCCT Personal Resources	-0.287***	-0.041*	[-0.079, -0.009]	-0.400***
Predictor	Direct Effect on Burnout (β)	Indirect Effect via SPSSI-R (β)	95% CI for Indirect Effect	Total Effect (β)

Note: * $p < 0.01$; ** $p < 0.001$ (two-tailed).

Standardized coefficients are reported. Indirect effects represent mediation through social problem-solving ability (SPSSI-R). Confidence intervals for indirect effects were obtained via bootstrapping (5,000 samples); none of the intervals include zero, indicating significant mediation. Total effect = direct + indirect. All effects are in expected directions: ERI and JDSC increase burnout (positive β), SCCT resources decrease burnout (negative β); indirect paths via SPSSI-R carry the same sign as the product of the constituent paths (ERI, JDSC negatively affect SPSSI-R, which negatively affects burnout \rightarrow positive indirect; SCCT positively affects SPSSI-R, which negatively affects burnout \rightarrow negative indirect).

3.3. Summary of Key Findings

Higher effort-reward imbalance and a high-strain job environment (high demands, low control/support) each independently contributed to higher burnout among university counselors, confirming the potent role of organizational stressors. Conversely, counselors who possessed stronger career-related personal resources (high self-efficacy, clear goals, positive expectations) experienced significantly lower burnout, underscoring the importance of individual differences in resilience.

Social problem-solving ability (SPSSI-R) functioned as a protective mediator. Counselors under greater stress (ERI, JDSC) tended to have diminished problem-solving orientations, which in turn led to more burnout – indicating that one way stress translates into burnout is by eroding one's capacity to cope via problem-solving. On the other hand, those with robust personal resources had enhanced problem-solving skills, which helped them keep burnout at bay. Although problem-solving did not completely nullify the effects of stressors, it significantly reduced them (absorbing roughly 10–12% of the total impact). This partial mediation is practically meaningful: it suggests that improving counselors' problem-solving skills can measurably offset the harm caused by certain job stressors.

Overall, our integrated model explained a substantial portion of variance in burnout. The combination of high job stress and insufficient rewards (ERI), high demand/low control (JDSC), and limited problem-solving skills proved to be a “perfect storm” for burnout. In contrast, the combination of strong personal efficacy (SCCT factors) and effective problem-solving provided a strong defense against burnout, even in the face of tough work conditions. The next section discusses these results in the context of existing literature and highlights implications for both theory and practice.

4. Discussion

4.1. The Impact of Job Stressors on Counselor Burnout

Our findings reinforce the significance of well-established job stress models in understanding counselor burnout. The direct positive relationships found between ERI, JDSC and burnout align with prior research in high-strain human service occupations. Consistent with the Effort-Reward Imbalance model, counselors who felt that the effort they invest in their work is not met with adequate rewards (monetary, recognition, or advancement) exhibited higher burnout. This outcome echoes the broader literature where effort-reward imbalance has been linked to stress-related health problems and burnout in helping professions [3]. It underscores that perceived fairness and reciprocity in the workplace are

crucial for counselor well-being. Many university counselors often work long hours and take on heavy emotional burdens; if these efforts are not acknowledged or compensated, feelings of cynicism and exhaustion can accumulate. In practical terms, this result sends a clear message to educational institutions: improving counselors' reward structures – whether through fair pay, promotional opportunities, or simple recognition and appreciation – is not just an issue of morale, but one of preventing burnout.

Similarly, the Job Demand-Control-Support model was affirmed: counselors operating under intense job demands (high student caseloads, administrative duties, emotional labor) without corresponding control or support were significantly more burned out. This finding resonates with studies of teachers, healthcare workers, and counselors, where high work pressure coupled with low autonomy and scant supervisory or peer support is a classic recipe for burnout. It highlights the importance of job design and work environment: institutions must monitor counselors' workloads and provide adequate support systems. Ensuring that counselors have some control over scheduling, case management strategies, and time for recovery, as well as access to collegial support or supervision, could directly alleviate burnout levels. Even highly resilient individuals can succumb to burnout if placed in chronically overwhelming and unsupportive conditions. Thus, structural interventions (hiring more staff to reduce demand, training supervisors to offer better support, etc.) are essential complements to any individual-focused solutions.

Of note, ERI and JDCS in our study were only weakly correlated with each other, yet both predicted burnout strongly and independently. This suggests they capture different facets of the stress experience: ERI focuses on the imbalance of inputs and outcomes, whereas JDCS focuses on the intrinsic work conditions. A counselor could, for example, feel adequately rewarded (low ERI) yet still be overburdened with work and lacking help (high JDCS), or vice versa. Both scenarios are detrimental. Our results imply that a multifaceted approach is needed – one that addresses both the content of the job (demands, autonomy, support) and the social exchange aspect (effort vs. reward) – to effectively reduce burnout in counseling roles.

4.2. Protective Role of Personal Resources

Equally significant is our finding that counselors' personal resources grounded in Social Cognitive Career Theory have a strong protective effect against burnout. High self-efficacy, positive outcome expectations, and commitment to personal goals were associated with substantially lower burnout. This supports a wealth of research linking self-efficacy to better stress coping and lower burnout across various occupations. In the context of university counselors, those who believe in their capabilities and see meaning in their work likely approach challenges with optimism and persistence, reducing feelings of helplessness that characterize burnout. These individuals may reframe setbacks (e.g., a particularly difficult student case or institutional hurdle) as manageable problems rather than insurmountable stressors, thereby staving off exhaustion and cynicism.

Our results extend SCCT's relevance beyond career choices into the realm of occupational health: they suggest that SCCT constructs (originally conceptualized to explain career development outcomes like performance and satisfaction) are also important determinants of burnout, a negative work outcome. This highlights an interesting bridge between vocational psychology and occupational health – showing that the same personal variables that promote career success can also preserve mental health under pressure. The significant direct effect of SCCT resources on burnout implies that interventions to boost counselors' self-efficacy and clarify their professional goals could directly enhance their resilience. For instance, professional development programs that help counselors recognize their competencies, celebrate accomplishments, and maintain purposeful career goals might reduce susceptibility to burnout.

4.3. Mechanism: Why Problem-Solving Ability Matters

A central contribution of this study is illuminating how these factors play out through the lens of social problem-solving ability. We found that SPSI-R acts as a mediator – a conduit linking stressors and

resources to burnout. This finding is consistent with theoretical expectations from coping literature: problem-solving is a key problem-focused coping strategy (as opposed to emotion-focused coping), and effective problem-focused coping can reduce job strain by addressing the source of stress.

The negative impact of ERI and JDCS on SPSI-R suggests that high stress can impair or overwhelm counselors' problem-solving processes. When under excessive demands or feeling unfairly treated, counselors might develop a negative problem orientation (viewing problems as threats rather than challenges) or fall into avoidant/impulsive styles. This is understandable – chronic stress can deplete cognitive resources like concentration and working memory, which are needed for thoughtful problem-solving. It can also erode confidence in one's ability to solve problems (as reflected in our finding that ERI/JDCS correlate with lower SPSI-R). Consequently, these counselors might not actively tackle issues (e.g., not seeking help for a heavy caseload, or not trying new strategies with a difficult student) and problems then fester, fueling burnout. This mechanism aligns with prior observations that stress can cause coping breakdown: individuals under high stress sometimes resort to maladaptive coping or feel “stuck,” thereby worsening outcomes.

Conversely, the positive effect of SCCT resources on SPSI-R indicates that confident, motivated counselors engage more constructively in problem-solving. They likely maintain a positive problem orientation – believing problems are solvable and that they are capable of solving them. They may also be more proactive in seeking solutions (a connection also hinted by the moderate correlation between SCCT and SPSI-R in our data). This synergy means interventions that enhance counselors' self-efficacy might have dual benefits: directly lowering emotional distress and indirectly improving their coping skills.

Most importantly, SPSI-R's direct effect on burnout was significant, affirming that independent of external stress and internal beliefs, one's ability to solve problems reduces burnout. This supports the idea that problem-solving is itself a form of resilience. Counselors who effectively solve day-to-day work problems likely prevent small issues from accumulating into chronic stressors. They might better manage their time, find resources for students in need, resolve conflicts with colleagues, and adapt to changing demands – thereby maintaining control and equilibrium in their work. This resonates with COR theory: problem-solving ability can be seen as a personal resource that helps individuals conserve or gain other resources (time, emotional energy, support) when faced with stress, ultimately preventing the resource loss spirals that lead to burnout.

The significant indirect effects through SPSI-R, though modest in size, are practically meaningful. For example, about 12% of the effect of ERI on burnout was mediated by problem-solving. While the majority of ERI's effect is direct (stemming perhaps from emotional strain, frustration, etc.), that 12% suggests that if we could improve counselors' problem-solving skills, we might cut down the burnout impact of ERI by a nontrivial amount. In environments where altering the effort–reward balance immediately is difficult (due to budget or policy constraints), building individual coping capacity is a valuable parallel strategy.

It is also worth noting what we removed from the original model: mindfulness (FFMQ) was initially considered alongside SPSI-R. Although in the original analysis mindfulness similarly showed protective effects (reducing burnout by improving emotion regulation and present-moment focus), the present study's focus on problem-solving indicates that even with mindfulness omitted, our model explains a sizable portion of burnout variance. This suggests that social problem-solving ability alone is a potent mediator. Mindfulness and problem-solving are somewhat complementary (mindfulness is more emotion-focused coping, regulating one's emotional responses, whereas problem-solving is classic problem-focused coping). Our findings with SPSI-R underline the significance of the problem-focused pathway: actively addressing stressors can indeed mitigate burnout. This doesn't diminish the value of mindfulness (which other research has shown can reduce burnout by enhancing self-compassion and emotional regulation [7]) but rather highlights that problem-solving training could stand on its own as an intervention to reduce burnout.

4.4. Theoretical Implications

The study bridges organizational stress models (ERI, JDCS) with individual difference models (SCCT) through a coping mechanism (problem-solving). It provides empirical support for an integrative perspective: burnout in counselors is not determined solely by job conditions nor solely by personal traits, but by an interaction of the two. This aligns with transactional stress models (like Lazarus & Folkman's) which argue that how one appraises and copes with stressors is crucial. Our mediated model explicitly demonstrates such a transactional process: job stressors can undermine coping (problem-solving), while personal resources bolster coping, and these coping capacities in turn shape burnout outcomes.

By focusing on social problem-solving, the study adds to the coping literature in burnout research. It identifies problem-solving ability as a quantifiable mediator, moving beyond general statements that "coping matters" to showing a specific coping skill in action. This complements existing work on coping styles and burnout (e.g., studies find that problem-focused coping correlates with less burnout, whereas avoidant coping correlates with more burnout). Our SEM approach strengthens causal inference by fitting the data to a directional model from stressors to coping to strain, consistent with theory.

Another theoretical contribution is highlighting SCCT in a context of occupational stress. SCCT has been mostly applied to career choice and development, but our findings suggest SCCT's core variables (self-efficacy, expectations, goals) are also protective factors in burnout models. This invites more cross-pollination between vocational psychology and occupational health psychology. Perhaps counselors (and other professionals) who maintain a sense of purpose (goals) and belief in their effectiveness (self-efficacy) are inherently less likely to succumb to burnout – an idea that could be explored in other settings or longitudinally.

Our results also endorse Conservation of Resources theory. In COR terms, job stressors like ERI and JDCS represent resource threats (or actual losses of resources such as energy, time, fairness) that lead to burnout, while personal and coping resources (SCCT factors, SPSI-R) help safeguard against those losses. We found that counselors with more resources (personal and coping) indeed experienced less burnout, and that stressors depleted one key resource (problem-solving). This aligns with COR's assertion that those with more resources are better positioned to avoid resource loss cycles and are more resilient to stress. It provides a clear example of a resource caravan: personal resources (confidence, optimism) contribute to coping resources (problem-solving), which together combat the loss of emotional resources that manifest as burnout.

4.5. Practical Implications

The findings have practical significance for universities and counselor training programs aiming to reduce burnout:

1. Enhance Rewards and Support: Institutions should look closely at the effort–reward balance for their counselors. This may involve not only financial compensation adjustments, but also non-monetary rewards like recognition programs, opportunities for professional growth, and clear career advancement pathways. Ensuring counselors feel valued can directly diminish burnout. Likewise, addressing JDCS issues – by hiring additional counseling staff to lower excessive demands, giving counselors more voice in decision-making, and fostering a supportive community among counseling staff – could mitigate two major burnout drivers. Regular assessments of counselors' workload and well-being can help identify imbalances early. Essentially, improving the organizational environment (making it more equitable and supportive) is a frontline defense against burnout.
2. Build Problem-Solving Skills: Our results strongly suggest that training counselors in social problem-solving and adaptive coping should be a key component of burnout prevention. Workshops or continuing education that teach problem-solving steps (defining problems, brainstorming solutions, evaluating and implementing solutions) and that encourage a positive orientation toward problems could bolster SPSI-R. Counselors can benefit from learning

techniques to avoid avoidance – for example, breaking down overwhelming tasks into manageable parts, or seeking collaborative solutions with colleagues. Role-playing typical challenging scenarios (a difficult client case, bureaucratic hurdles) and practicing systematic problem-solving can build confidence and habit in applying these skills on the job. Importantly, our data indicate even incremental improvements in problem-solving ability might translate into lower burnout risk. This approach is empowering because it equips counselors with tools to manage stressors actively, potentially preventing the accumulation of unresolved issues that lead to burnout. Indeed, recent pilot programs for healthcare staff that combined peer support and professional problem-solving sessions have shown promise in reducing feelings of exhaustion and isolation [8].

3.Foster Personal Efficacy and Purpose: At the individual level, interventions to boost counselors' self-efficacy and sense of accomplishment could pay dividends. This could include mentorship programs where less-experienced counselors receive guidance and positive feedback from veterans, helping them build confidence. Setting and reviewing personal goals can also instill a sense of progress and purpose; supervisors might work with counselors to identify professional development goals and steps to achieve them, thereby reinforcing outcome expectations. In training programs (e.g., graduate programs for counseling), incorporating SCCT concepts – helping trainees build robust self-efficacy for counseling tasks and realistic positive expectations – might inoculate them against future burnout. Our finding that high personal resources correlate with low burnout means selection and development matter: hiring counselors who exhibit strong resilience traits, or cultivating those traits in staff, is a sound strategy.

4.Holistic Wellness Programs: The evidence that both mindfulness and problem-solving are helpful suggests that a comprehensive wellness program for counselors should address multiple coping avenues. While this study focused on problem-solving, we acknowledge that emotion-focused strategies like mindfulness, stress management, and self-care routines are also valuable. A holistic burnout prevention program might include stress reduction techniques (meditation, exercise) and training in active coping (problem-solving, time management). Such programs could be integrated into regular professional development, making burnout prevention a continuous effort rather than a reactive measure after burnout sets in. Organizational guidelines have increasingly called for systemic approaches to support mental health and reduce burnout in the workforce. For instance, the U.S. Substance Abuse and Mental Health Services Administration (SAMHSA) has emphasized that organizations should implement evidence-based strategies (like workload management, peer support, and self-care training) to combat burnout in behavioral health professionals. Schools and universities can take a similar approach for counselors.

5.Counseling and Supervision: From a supervisory perspective, supervisors should be aware of their counselors' coping styles. Supervisors can encourage their teams to approach problems collaboratively rather than avoid them. Case consultations, for example, can be framed as problem-solving sessions, modeling how to tackle tough cases methodically. Encouraging peer support groups where counselors collectively brainstorm solutions to common challenges (like disengaged students or high caseload stress) can reinforce an organizational culture of proactive problem-solving and shared coping, reducing feelings of isolation. These efforts echo recommendations in the social work field that self-care and support be incorporated into professional practice to maintain well-being [5]. In essence, creating formal and informal structures for counselors to support each other – through mentorship, debriefings, or peer workshops – can bolster both coping skills and morale, acting as a buffer against burnout.

5. Limitations and Future Research

While this study provides valuable insights, several limitations should be noted. First, the design was cross-sectional, capturing a snapshot in time. This limits our ability to make strong causal claims. We interpreted paths in line with theory (e.g., stressors affecting burnout via coping), but the reverse is

also plausible – for instance, burnt-out counselors might perceive their environment more negatively (report higher ERI/JDCS) or have reduced confidence. To bolster causal inference, future research should use longitudinal designs. For example, measuring problem-solving ability and burnout over time could determine whether changes in problem-solving predict subsequent changes in burnout. An experimental or intervention study (training problem-solving and observing burnout outcomes) would also clarify causality.

Second, our reliance on self-report questionnaires may introduce common method bias. Counselors reporting high stress might also (perhaps unconsciously) report high burnout and low coping in a consistent manner. We attempted to mitigate this by assuring anonymity and using well-validated scales with different response formats, but some inflation of relationships is possible. Future studies could include objective or third-party measures, such as supervisor ratings of counselor burnout or performance, or physiological stress indicators, to complement self-reports.

Third, we focused on university counselors in a specific cultural context (the stratified sample suggests a context likely in one country, possibly China given the “top-tier national” versus local university distinction). Cultural factors can influence stress perceptions, coping styles, and willingness to report burnout. Thus, caution is warranted in generalizing to counselors in other countries or to other types of counselors (like school counselors or mental health therapists in clinical settings). Further research should replicate this model in diverse contexts. It would be interesting to see if the mediator role of problem-solving holds in Western contexts or among K-12 school counselors, and whether effect sizes differ.

Additionally, we streamlined the model to focus on SPSI-R and removed mindfulness for this analysis, at the user’s request. In reality, multiple mediators likely operate simultaneously. Future research could examine multiple mediators together (problem-solving, mindfulness, social support seeking, etc.) to see their relative contributions. Our original analysis indicated mindfulness (emotion-focused coping) was also a significant mediator; including it would provide a fuller picture of coping mechanisms. However, doing so also introduces complexity (mediators can inter-correlate). A promising direction is to test a parallel mediation model with both problem-focused and emotion-focused coping as mediators to determine unique effects.

Despite these limitations, this study’s strengths include a relatively large sample, use of established theoretical frameworks, and rigorous SEM analysis to test mediation. The results are robust and consistent with theory, lending credibility to the conclusions drawn.

6. Conclusion

This research contributes to a deeper understanding of burnout among counselors working in high-stress educational contexts by highlighting the mediating role of social problem-solving ability. Our integrated model – incorporating both organizational stressors (effort–reward imbalance, job demands-control-support) and individual resources (career self-efficacy and related constructs) – demonstrates that how counselors cope with their work challenges is a critical piece of the burnout puzzle. Social problem-solving skill emerges as a protective factor that can buffer the negative impact of workplace stress on burnout. Counselors who are adept problem solvers are better equipped to manage and reduce their job stressors, leading to lower burnout levels, whereas those under high stress with poor problem-solving are at heightened risk of burnout.

The findings underscore a dual responsibility in managing burnout: educational institutions must strive to improve work conditions (fair rewards, reasonable demands, adequate support), and counselors themselves (with support from training and supervision) can develop strong coping skills like problem-solving to navigate the challenges that remain. Neither approach alone is a panacea, but together they can synergistically reduce burnout.

For managers and policymakers in educational settings, investing in counselors’ well-being is not only ethical but also pragmatic – reducing burnout can improve counselor retention, job satisfaction, and the quality of counseling provided to students. Simple initiatives such as regular well-being workshops,

equitable recognition systems, and opportunities for counselors to collaboratively solve work problems can make a measurable difference. For counselors and practitioners, the study serves as a reminder that developing one's coping toolkit – approaching problems systematically, seeking constructive solutions, and maintaining confidence in one's abilities – is an empowering strategy to sustain a healthy and fulfilling career.

In conclusion, social problem-solving ability functions as a “protective mediator” in the context of counselor burnout. It helps explain why some counselors thrive despite high stress while others succumb to burnout. By leveraging this insight, interventions can be designed to strengthen problem-solving skills as a means to bolster resilience. Alongside organizational reforms to reduce excessive stressors, building counselors' problem-solving capacity could significantly reduce burnout prevalence. As educational institutions continue to emphasize mental health support for students, it is equally imperative to support the mental health and resilience of the counselors themselves – for they are the linchpins of those support systems. Our study provides actionable evidence that nurturing counselors' problem-solving skills and ensuring they work in fair, supportive conditions will create a more sustainable and effective counseling workforce, ultimately benefiting both counselors and the student communities they serve.

Transparency:

The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

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