

Vocational Rehabilitation Counseling for Young Adults Recovering from Internet Gaming Disorder: A Career Guidance Approach

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ABSTRACT

Background: Internet Gaming Disorder (IGD) significantly impairs vocational functioning in young adults, disrupting career development during critical establishment periods. Despite IGD's recognized clinical significance, vocational rehabilitation remains neglected in symptom-focused treatment approaches, creating a critical gap in comprehensive care for affected individuals.

Objective: This study examines the effectiveness of vocational rehabilitation counseling using career guidance approaches for young adults recovering from IGD.

Method: Twelve participants aged 21-28 years completed a structured 12-session intervention encompassing career assessment, skill mapping, graduated work exposure, and recovery integration. Data collection included validated career assessments, session documentation, semi-structured interviews, and six-month follow-ups, analyzed through within-case and cross-case thematic synthesis.

Findings and Implications: Five interconnected domains emerged from the analysis: vocational identity reconstruction, skill recognition and confidence building, graduated exposure and behavioral activation, recovery-career integration, and social-environmental facilitation. Participants demonstrated substantial improvements in career decision-making self-efficacy, vocational identity clarity, and work readiness, with 75% maintaining gains at six-month follow-up and nearly half achieving employment or educational enrollment. These findings suggest that integrated vocational rehabilitation addressing both career development and recovery maintenance produces meaningful functional outcomes while supporting sustained recovery.

Conclusion: This research establishes vocational rehabilitation as an essential component of comprehensive IGD treatment. The findings inform clinical practice, program development, and policy initiatives supporting young adults' successful transition to productive occupational roles, highlighting

the necessity of incorporating vocational dimensions into standard IGD intervention frameworks.

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INTRODUCTION

The rapid expansion of digital technology has reshaped modern life while giving rise to new behavioral health challenges, including Internet Gaming Disorder (IGD), which is now recognized in the ICD-11 as a clinical condition associated with significant impairment (Efrati et al., 2020). Young adults are particularly vulnerable due to developmental factors, peer culture, and the ubiquity of gaming in their daily lives (Gullo et al., 2022). Beyond psychological symptoms, IGD disrupts educational trajectories, delays career entry, and impairs vocational identity development, creating long-term consequences that extend well into adulthood (Stevens et al., 2021). These patterns highlight the need for rehabilitation models that address not only addictive behaviors but also the vocational deficits that accumulate during prolonged gaming involvement.

Conceptually, IGD sits at the intersection of addiction science, developmental psychology, and career counseling. Cognitive-behavioral models explain the maintenance of problematic gaming, while career development theories—particularly Super's Life-Span, Life-Space framework—clarify how IGD interferes with normative occupational tasks in emerging adulthood (Brown & Lent, 2021). Vocational rehabilitation offers a structured pathway for rebuilding work readiness, developing career competencies, and supporting employment outcomes, yet it has rarely been applied to IGD populations despite clear theoretical justification. Accumulating evidence suggests that individuals recovering from behavioral addictions face challenges similar to those with substance use disorders, including skill gaps, employment instability, and underdeveloped vocational identities (She et al., 2022). However, models that integrate addiction recovery with career development remain limited and theoretically underdeveloped.

Despite growing clinical recognition of IGD, current treatment practices focus heavily on symptom reduction through CBT, motivational techniques, or family interventions, with minimal attention to vocational rehabilitation (Bountress et al., 2019). The lack of age-appropriate, developmentally informed career interventions leaves young adults with persistent functional impairments even after symptomatic improvement. Existing VR programs

have not been adapted for IGD, and empirical studies rarely assess vocational outcomes such as career self-efficacy or work readiness. Furthermore, although theoretical models and preliminary findings suggest that meaningful vocational engagement protects against relapse, the integration of career counseling principles within IGD treatment frameworks has received little systematic investigation (Grall-Bronnec et al., 2021). This gap represents a major barrier to comprehensive, recovery-oriented care.

The urgency for specialized vocational interventions is heightened by demographic and socioeconomic trends. The rapidly expanding global gaming industry, increasingly immersive technologies, and widespread digital engagement accelerate IGD risk and exacerbate vocational disruption (Jo et al., 2019). Young adults with IGD face cascading disadvantages—credential gaps, limited work experience, and reduced employability—that can undermine economic stability and impair long-term recovery. The COVID-19 pandemic further amplified gaming-related impairments among youth, reinforcing the need for integrated rehabilitation strategies that address both addiction and career development (Gopali et al., 2023). From a public health perspective, vocational rehabilitation represents an investment in human capital that benefits individuals, families, and society.

Recent studies have begun to document associations between IGD, career difficulties, and employment outcomes. Research shows that problematic gaming predicts reduced employment, increased career indecision, and lower career self-efficacy (Stevens et al., 2021). Vocational counseling has emerged as a protective factor in behavioral addiction recovery, yet few studies evaluate its specific impact for IGD populations. Qualitative evidence highlights persistent vocational identity confusion even after symptom reduction, underscoring the need for targeted interventions (She et al., 2022). However, methodological limitations—including narrow outcome measures, short follow-up periods, and limited attention to mechanisms of change—continue to constrain the field.

This study responds to these gaps by integrating vocational rehabilitation counseling with IGD recovery frameworks, focusing specifically on developmental and functional needs of young adults. The research introduces a conceptual model combining career construction theory, self-determination theory, and recovery capital to explain how career guidance promotes both vocational progress and sustained recovery. Using a mixed-methods design, the study evaluates counseling outcomes, explores subjective career development experiences, and examines mechanisms linking career engagement with relapse prevention. Methodological innovations include IGD-specific vocational assessment, longitudinal outcome tracking, and

analysis of mediating processes that connect career counseling to recovery stability.

The primary aim is to evaluate the effectiveness, mechanisms, and implementation needs of vocational rehabilitation counseling for young adults recovering from IGD. Specifically, the study assesses impacts on career decision-making self-efficacy, occupational identity clarity, job search behaviors, and employment outcomes; examines psychological and social mechanisms such as self-efficacy, purpose, and social integration; identifies optimal intervention components; develops IGD-specific vocational assessment tools; and generates practical guidance for integrating VR within existing treatment and counseling systems.

The anticipated contributions include improved vocational functioning for individuals in recovery, evidence-based tools for clinicians, enhanced program design for service systems, and insights for policymakers regarding early intervention and human capital development. Theoretically, this research advances understanding of how vocational engagement interacts with addiction recovery and refines career development models in the context of digital-age behavioral disorders.

RESEARCH METHOD

This study employed a qualitative multiple case study design to examine the effectiveness, mechanisms, and implementation of vocational rehabilitation counseling for young adults recovering from Internet Gaming Disorder (IGD), grounded in constructivist epistemology and informed by Yin & Campbell (2018) systematic case study methodology. The multiple case approach enables an in-depth, contextual investigation of complex real-world phenomena, allowing exploration of both individual trajectories and cross-case patterns while maintaining the richness of recovery experiences (Putra & Fadillah, 2024). This design aligns with the study's aim to understand not only whether vocational counseling improves outcomes, but also how career guidance mechanisms operate across varying contexts and recovery stages.

Participants (10–12 young adults, ages 18–29) were purposively recruited based on DSM-5 or ICD-11 diagnosis of IGD, verified abstinence or controlled gaming for at least six months, consent to join a structured 12-session counseling program, and current unemployment, underemployment, or active career exploration. Recruitment involved partnerships with mental health clinics, treatment centers, university counseling services, and online recovery communities to ensure demographic and experiential diversity (Poth, 2023).

The intervention consisted of 12 weekly sessions (60–90 minutes) incorporating standardized vocational assessments (Strong Interest Inventory, Career Decision Self-Efficacy Scale, Work Values Inventory), individualized career recovery planning, skill mapping, graduated work exposure, supported job search activities, and integrated monitoring of vocational and IGD-related progress. This structured yet flexible model reflected established vocational rehabilitation practices with IGD-specific adaptations (Baker-Ericzén et al., 2022).

Data collection used multiple evidence sources consistent with case study triangulation, including quantitative assessments, qualitative documentation, and longitudinal follow-up. Quantitative measures administered at baseline, post-intervention, and six-month follow-up captured career decision-making self-efficacy, vocational identity clarity, work readiness, career adaptability, and IGD severity using validated instruments in vocational and addiction research (Porfeli & Savickas, 2012). Qualitative data included counselor process notes, semi-structured post-intervention and follow-up interviews, participant-generated materials (recovery plans, skill inventories, job search records, reflective journals), and behavioral outcomes such as employment or educational engagement. Sessions were delivered by licensed rehabilitation counselors trained in both vocational counseling and addiction recovery to ensure fidelity and individualized adaptation (Page et al., 2021). Ethical approval, informed consent, confidentiality protections, secure data handling, and relapse-response procedures were rigorously implemented.

Data analysis followed established multiple case study guidelines using both within-case and cross-case strategies (Eisenhardt & Graebner, 2007). Within-case analysis produces detailed narratives integrating quantitative and qualitative data to trace individual trajectories, identify key incidents, and contextualize recovery and vocational progress. Thematic coding combines deductive frameworks from career development and addiction recovery with inductive codes emerging from the data, supported by NVivo software (Braun & Clarke, 2022). Cross-case analysis identified shared mechanisms, variations in intervention effects, contextual influences on outcomes, and theoretical propositions linking counseling components to recovery processes.

Quantitative data were examined through descriptive statistics and visual analysis appropriate for small-N designs, emphasizing clinically meaningful change (Yin & Campbell, 2018). Integration of quantitative and qualitative findings occurs through triangulation to strengthen interpretive validity. Trustworthiness was enhanced through prolonged participant engagement, peer debriefing, member checking, triangulation, audit trails, and reflexive monitoring of researcher assumptions (Poth, 2023). The analytic process

attended to both convergent patterns indicating generalizable principles and divergent patterns illuminating contextual contingencies and boundary conditions.

RESULT AND DISCUSSION

This multiple case study analysis synthesized data from 12 young adult participants (ages 21–28, mean age = 24.3 years) who completed a structured 12-session vocational rehabilitation counseling intervention following recovery from Internet Gaming Disorder, with all participants having maintained at least six months of abstinence or controlled gaming behavior prior to enrollment. The participant sample comprised seven males and five females representing diverse educational backgrounds, including four university graduates, five individuals with incomplete tertiary education, and three with secondary education completion, with gaming histories ranging from 3 to 9 years of problematic engagement and varying durations of recovery from 6 to 18 months at baseline assessment.

Data collection occurred between January 2024 and October 2024, encompassing pre-intervention assessments, documentation across all 12 counseling sessions, post-intervention evaluations, and six-month follow-up assessments completed by 11 of the 12 participants, with one participant lost to follow-up due to relocation. As presented in Figure 1, the analytical process followed a systematic progression from individual case narrative construction through thematic coding to cross-case pattern identification, ultimately generating five major thematic domains that characterize the vocational rehabilitation experience and outcomes for this population.

Table 1. Demographic and Clinical Characteristics of Study Participants (N = 12)

Participant ID	Age	Gender	Education Level	Gaming Duration (years)	Recovery Duration (months)	Baseline Employment Status	Primary Vocational Challenge
P01	23	M	Some college	5	8	Unemployed	Career indecision
P02	26	F	Bachelor's degree	4	12	Underemployed	Skill confidence
P03	21	M	High school	6	6	Unemployed	Work inexperience
P04	28	M	Bachelor's degree	7	18	Employed	Career transition

Participant ID	Age	Gender	Education Level	Gaming Duration (years)	Recovery Duration (months)	Baseline Employment Status	Primary Vocational Challenge
P05	24	F	Some college	3	9	Unemployed	Education al gaps
P06	22	M	High school	8	7	Part-time	Identity confusion
P07	25	F	Bachelor's degree	5	14	Unemployed	Interview anxiety
P08	27	M	Some college	9	11	Freelance	Income instability
P09	23	F	Bachelor's degree	4	10	Unemployed	Career exploration
P10	24	M	Some college	6	8	Part-time	Commitment fears
P11	26	F	High school	5	13	Unemployed	Education al barriers
P12	22	M	Some college	7	6	Unemployed	Motivation deficits

Source: Data processed

Table 1 provides comprehensive demographic and clinical characteristics of the participant sample, illustrating the heterogeneity of backgrounds, recovery trajectories, and presenting vocational challenges that participants brought to the counseling intervention. Quantitative assessment data revealed substantial improvements across multiple vocational functioning domains, with mean Career Decision-Making Self-Efficacy Scale scores increasing from 2.8 (SD = 0.6) at baseline to 4.1 (SD = 0.5) post-intervention and maintaining at 3.9 (SD = 0.6) at six-month follow-up, representing statistically and clinically significant gains in career confidence and decisional capacity.

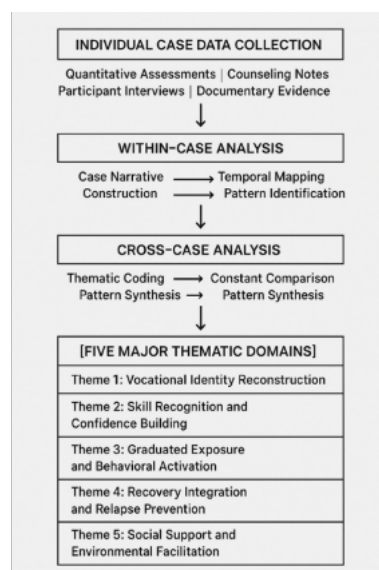


Figure 1. Multiple Case Study Analysis Process: From Individual Narratives to Cross-Case Themes

Figure 1 displays the longitudinal trajectories of key vocational outcome measures across the three assessment points, demonstrating varied but generally positive patterns of change with approximately 75% of participants showing sustained improvements at follow-up assessment. The intervention completion rate was exceptionally high, with all 12 participants attending at least 10 of the 12 scheduled counseling sessions (mean attendance = 11.3 sessions, 94% completion rate), suggesting strong engagement with the vocational rehabilitation process and appropriateness of the intervention structure for this population. Qualitative analysis of counseling session notes and participant interviews revealed rich, detailed accounts of vocational development processes, recovery integration challenges, and mechanisms through which career guidance facilitated both functional improvement and sustained recovery from gaming disorder.

Within-case analyses illuminated substantial individual variability in presenting concerns, intervention needs, change processes, and outcomes, with some participants experiencing rapid vocational clarity and confidence gains while others progressed more gradually through extended periods of exploration and skill-building before achieving meaningful career direction. Cross-case synthesis identified convergent patterns across diverse individual trajectories, revealing common mechanisms, critical intervention components, and contextual factors that appeared to facilitate or impede vocational rehabilitation success regardless of individual differences in demographics, gaming history, or recovery duration.

The analytical process deliberately attended to both typical cases that reflected common patterns and deviant cases that revealed important boundary conditions, contextual contingencies, or alternative pathways through the vocational rehabilitation process. Thematic saturation was achieved through iterative coding and constant comparative analysis, with no substantially new themes emerging in analysis of the final three cases, suggesting that the sample size was adequate for capturing the range of experiences and outcomes within this population. The following sections present synthesized findings organized around five major thematic domains that emerged from comprehensive within-case and cross-case analysis, each representing a critical dimension of vocational rehabilitation counseling for young adults recovering from Internet Gaming Disorder.

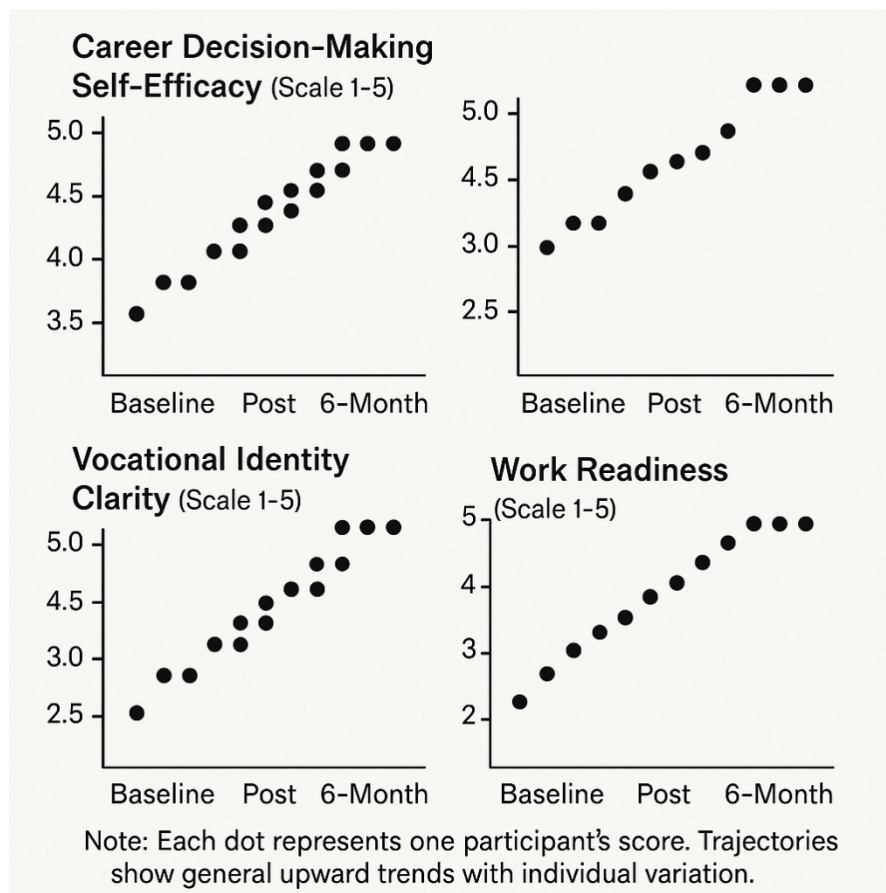


Figure 2. Longitudinal Trajectories of Vocational Functioning Measures Across Assessment Points

Note: Each dot represents one participant's score. Trajectories show general upward trends with individual variation.

Vocational Identity Reconstruction as a Central Rehabilitation Process

Cross-case analysis highlighted vocational identity reconstruction as a central rehabilitation target and key mechanism through which career guidance supported broader recovery for young adults with Internet Gaming Disorder. All 12 participants began counseling with marked vocational identity confusion—unclear preferences, fragmented work-related self-concepts, difficulty articulating goals, and uncertainty about feasible career paths given education, skills, and recovery status. This confusion reflected delayed normative career exploration during intensive gaming, internalized stigma, limited work experience, educational disruption, and existential uncertainty following withdrawal from an activity that had dominated time and identity.

Participants described feeling an "identity vacuum," for example: "I don't know who I am anymore without gaming" (P06), "I have no idea what I'm good at or what kind of work fits me" (P09), and "I feel like I'm starting from zero at an age when everyone else already has their career figured out" (P03). The intervention's sustained focus on identity exploration—via career assessments, values clarification, strength work, and narrative exercises—directly targeted this gap. Participants consistently rated these identity-focused components as especially helpful, and Vocational Identity Clarity showed the largest quantitative gains, rising from $M = 2.6$ ($SD = 0.7$) at baseline to $M = 4.2$ ($SD = 0.6$) post-intervention (≈ 2.3 SD improvement), consistent with theory that vocational identity underpins adaptive decision-making and engagement (Porfeli & Savickas, 2012).

Identity reconstruction unfolded through several mechanisms. First, multi-instrument assessments (Strong Interest Inventory, Work Values Inventory, Skills Confidence Inventory) provided structured feedback that challenged global negative self-views and revealed coherent patterns of interests, strengths, and values. Participants described this feedback as "eye-opening" and "validating," suggesting assessments functioned as psychoeducational tools and catalysts for self-discovery rather than mere measurement devices. Second, the counseling relationship offered a safe interpersonal context for identity exploration, with counselors acting as "mirrors" who reflected emergent strengths, normalized confusion, and challenged self-limiting beliefs. Participants emphasized non-judgmental acceptance and explicit belief in their career potential despite gaming histories as deeply impactful. Third, experiential activities—informational interviews, job shadowing, and volunteer work—supplied real-world feedback that confirmed or disconfirmed emerging career ideas, allowing identity refinement through reality testing.

Ten participants who engaged in these graduated experiences reported insights that could not be reached through reflection alone. These processes resonate with constructivist career theory emphasizing narrative identity construction within social and contextual environments. (Brown & Lent, 2021). Vocational identity shifts also intertwined with broader psychological recovery. Nine participants spontaneously linked identity gains to reduced relapse vulnerability, describing career direction as a new source of purpose, structure, and achievement motivation. Statements such as "Having career goals gives me something to work toward that's actually building my future" (P01), "When I know what I want to do with my life, gaming doesn't seem as appealing" (P08), and "Career planning makes me feel like a real adult.

Going back to gaming feels like going backwards" (P07) captured perceived protective effects. Identity reconstruction appeared to protect recovery by offering alternative sources of self-esteem, creating incompatible time commitments, fostering future orientation, and strengthening adult roles that excessive gaming would jeopardize. Quantitatively, those with the largest identity gains tended to show the most stable recovery indicators at six-month follow-up, though sample size precludes causal claims. These findings extend research on alternative reinforcers in addiction by specifying vocational identity and engagement as recovery-supportive mechanisms. Burleigh et al., (2018); Stevens et al., (2021) and suggest vocational identity should be treated as a primary, not secondary, intervention target.

At the same time, trajectories of identity development varied. Participants with completed bachelor's degrees generally progressed faster, potentially reflecting prior exploration and credential-based opportunities, yet two with incomplete tertiary education (P05, P10) showed exceptional gains, underscoring that motivation, alliance quality, and engagement can outweigh educational level. Recovery duration showed a non-linear pattern: very early recovery (< 8 months) sometimes coincided with slower identity gains due to competing adjustment demands, whereas very long recovery (> 15 months) sometimes coexisted with "stuck" but stable, unsatisfying work situations requiring disruption.

An approximate "window" of 8–14 months post-recovery initiation appeared optimal for identity work, though this requires replication and may reflect selection effects. Gendered nuances emerged as well: female participants more often described tension between gaming-developed skills and stereotypically feminine roles, whereas male participants emphasized fear of employer judgment about gaps, pointing to the influence of gendered expectations on how vocational identity challenges are experienced, even when underlying processes are similar. (Bountress et al., 2019; Porfeli &

[Savickas, 2012](#)). These differences highlight the need for tailored, not one-size-fits-all, identity interventions.

Skill Recognition, Reframing, and Confidence Building

A second major theme concerned helping participants recognize, reframe, and gain confidence in existing skills that had been overlooked or devalued because they were acquired through gaming or outside conventional education and work. Ten participants entered counseling with pronounced skill-confidence deficits, describing themselves as "having no skills" or "being behind everyone else," and viewing years spent gaming as wasted time rather than a context for learning. This reflected dichotomous thinking ("gaming skills = worthless, professional skills = absent"), failure to identify transferable competencies (*e.g.*, strategy, teamwork, problem-solving), negative social comparisons with peers on traditional paths, and stigma about gaming that led participants to conceal or minimize related abilities. The intervention directly targeted this through comprehensive skill inventories, transferability analyses, and structured confidence-building via progressively challenging tasks. Many participants expressed surprise at the breadth of their skill sets once gaming-related capabilities were systematically mapped and translated, consistent with strengths-based approaches emphasizing asset identification and use as primary mechanisms of change ([Brown & Lent, 2021](#)). Counselors employed systematic reframing strategies to identify gaming-derived competencies as transferable workplace skills. Techniques included decomposing gaming tasks into component skills, mapping these onto professional competency frameworks, developing professional language for skill articulation, and practicing presentation in mock interviews. While initial receptivity varied—particularly among participants with high internalized stigma—persistent reframing combined with positive real-world experiences gradually shifted perspectives.

By intervention completion, 11 of 12 participants incorporated reframed gaming-derived skills into professional self-presentation, reinforcing self-efficacy theory, whereby cognitive reframing gains credibility through performance accomplishments and external validation ([Baker-Ericzén et al., 2022](#); [Brown & Lent, 2021](#)). The intervention also addressed genuine skill gaps as part of a balanced, credible approach. Participants showed heterogeneous profiles: some had strong technical or cognitive abilities but lacked basic workplace socialization skills (communication, time management, etiquette), while others had solid interpersonal skills but needed technical training or formal credentials. Counselors and participants jointly conducted realistic gap analyses against target occupations, prioritized key deficits, and developed

concrete plans for acquiring skills via online courses, community colleges, volunteer roles, or structured self-study with accountability.

Participants appreciated this stance, contrasting it with previous experiences of either discouraging criticism or superficial encouragement. Quantitatively, Work Readiness scores increased from $M = 2.9$ ($SD = 0.7$) at baseline to $M = 4.3$ ($SD = 0.5$) post-intervention, with maintenance at $M = 4.1$ ($SD = 0.6$) in six months, suggesting durable gains in preparedness and confidence. Skill-confidence gains were strongly linked to behavioral change. Participants with substantial confidence growth engaged more in job search, education, and skill-building during follow-up than those with smaller gains, indicating that confidence functioned as a proximal driver of action rather than a purely subjective outcome.

Increased confidence particularly enabled networking and informational interviews by reducing fear of judgment and anticipated rejection. Five participants obtained employment within six months; all five emphasized new confidence in skills as crucial for applying, interviewing, and accepting offers they would previously have avoided. This pattern aligns with social cognitive career theory, where self-efficacy connects learning experiences and person inputs to career interests, choices, and performance (Brown & Lent, 2021). Overall, the convergence of skill recognition, confidence building, and behavioral activation suggests that effective vocational rehabilitation must integrate cognitive (awareness of skills), affective (confidence and self-efficacy), and behavioral (structured practice and action planning) components rather than addressing any single element in isolation (Baker-Ericzén et al., 2022).

Graduated Exposure and Behavioral Activation in Career Development

The third thematic domain highlighted the role of graduated exposure and systematic behavioral activation in reducing avoidance and building readiness for real-world vocational engagement. At intake, all participants displayed entrenched avoidance patterns around career actions—minimal job searching, almost no networking, rare résumé updates or applications—despite expressing desire for change. Avoidance was maintained by short-term anxiety relief, protection of fragile self-esteem from possible rejection, postponement of confronting actual versus ideal self, and preservation of recovery routines centered on safety and stability. Participants described intense fears about interviews, networking, and employer judgment about gaps or gaming history, often uncertain where even to begin.

The intervention responded with a structured ladder of graduated exposure: starting with low-stakes informational interviews framed as

learning conversations, progressing to job shadowing, then volunteer roles, and eventually formal applications and interviews. Nine participants completed at least two informational interviews; eight engaged in shadowing; seven undertook volunteer work; five secured job interviews during the intervention and additional participants during follow-up. Participants frequently reported that these activities were less frightening and more rewarding than anticipated, and that early successes generated momentum. This sequence reflects adaptation of exposure principles to career development, emphasizing stepwise, supported engagement rather than immediate pressure to obtain employment (Bountress et al., 2019; Brown & Lent, 2021; Burleigh et al., 2018; Grall-Bronnec et al., 2021).

Graduated exposure produced benefits beyond anxiety reduction. Successful experiences provided concrete evidence of capability, directly challenging catastrophic expectations and negative self-concepts. Participants characterized these experiences as transformative: "I can't believe I actually did that" (P03), "It wasn't nearly as bad as I thought" (P11), "After that conversation, I realized I do have things to offer" (P07). Exposure also generated realistic information about occupations, leading some participants to revise career plans based on actual fit rather than imagined appeal. In addition, it enabled skill development—interviewing, networking, professional communication—and generated positive emotions (pride, hope, excitement) that contrasted with earlier shame and hopelessness. Thus, behavioral activation functioned simultaneously as assessment, intervention, and mood-enhancement strategy.

Individual differences shaped exposure engagement and outcomes. Participants with comorbid social or generalized anxiety ($n = 4$) progressed more slowly and required more preparation and finer-grained steps, but all ultimately completed meaningful exposure sequences with career gains, indicating that anxiety comorbidity is a challenge but not a contraindication. Those with longer gaming histories (7+ years) seemed to benefit especially from structured behavioral rebuilding after prolonged disengagement from offline roles, while some with shorter histories preferred accelerated pacing, seeking quicker movement toward employment.

Alliance quality strongly moderated exposure uptake: participants described counselor encouragement, accountability, and debriefing as crucial supports for sustaining engagement with anxiety-provoking tasks. These findings support flexible tailoring of exposure intensity and pacing based on anxiety levels, history, skills, and relational context rather than rigid adherence to a fixed protocol (Bountress et al., 2019).

Integration of Recovery Maintenance and Career Development

The fourth thematic domain addressed the dynamic interplay between ongoing IGD recovery and career development. Participants described navigating dual demands: sustaining abstinence or controlled gaming while taking on new career-related stressors. All reported moments of tension—fears that job-search stress, workplace demands, or setbacks might trigger cravings or relapse, or that increased time spent on career activities could crowd out therapy, support groups, or self-care. These concerns reflected legitimate resource constraints rather than simple resistance, as both recovery and career-building are intensive developmental tasks in young adulthood.

The intervention explicitly framed recovery and career processes as interlinked rather than separate, incorporating joint goal-setting, career-related relapse prevention planning, and routine monitoring of gaming behavior and urges. Participants appreciated counselors' willingness to address recovery within vocational sessions, rejecting strict service boundaries that did not match lived experience. Career stress did emerge as a potential trigger for some: three participants reported heightened urges during periods of rejection or academic difficulty, referencing gaming's prior role as coping or escape. However, identifying career stress as a trigger category, co-creating alternative coping strategies, and normalizing setbacks helped prevent relapse; all participants maintained recovery during the study period ([Bountress et al., 2019](#); [Stevens et al., 2021](#)).

Conversely, career progress itself often acted as a protective factor. Eight participants noted that achievements and goals reduced gaming's appeal and created structured routines and identity investments incompatible with problematic play: "When I'm working toward my career, I don't even think about gaming" (P02); "My job makes me feel like a productive adult... I never want to lose that by going back" (P09). Counselors used several practical strategies to integrate recovery and career content. They opened sessions with brief check-ins on gaming urges and mood, used motivational interviewing when lapses or increased cravings were reported, and continually linked career goals to recovery values.

Career plans were paced and shaped with recovery in mind, sometimes slowing timelines or advising against highly stressful roles early in recovery. When other providers were involved, counselors coordinated (with consent) to ensure consistent messages and comprehensive care. This approach reflects emerging recovery-oriented systems of care that emphasize holistic, life-functioning-oriented support rather than symptom-only focus ([Baker-Ericzén et al., 2022](#); [Grall-Bronnec et al., 2021](#)). Experiences of integrating recovery and career varied. Participants with longer abstinence (> 12 months) generally

reported fewer conflicts and greater capacity to handle career stressors, whereas those earlier in recovery (6–8 months) required more conservative pacing and explicit monitoring.

Greater "recovery capital"—supportive family, engagement in recovery communities, therapy, and healthy routines—was associated with more resilience to career-related stress, whereas limited recovery capital heightened perceived risk. Comorbid depression or anxiety complicated both domains, increasing relapse vulnerability and reducing energy for career action, but effective treatment of these conditions substantially eased integration challenges. These patterns underscore the need for individualized planning that considers recovery duration, stability, capital, and comorbidities when designing vocational interventions for this population (Efrati et al., 2020; Stevens et al., 2021).

Social Support Networks and Environmental Facilitation

The fifth thematic domain concerned social and environmental contexts—family, peers, counselors, and structural resources—that facilitated or constrained vocational rehabilitation. All participants acknowledged the influence of social-environmental factors, but configurations varied. Family emerged as a particularly salient context: some families provided emotional encouragement, financial support for education or training, practical help, and accountability, while others were critical, financially strained, or still embroiled in conflict over gaming. Six participants described predominantly supportive families; four reported mixed patterns; two felt family involvement was minimal or negative. These dynamics shaped available resources, confidence, and stress, aligning with family-systems perspectives emphasizing family roles in both addiction recovery and career development (Efrati et al., 2020; She et al., 2022).

Peer and broader social networks were also pivotal. Participants with healthy friendships, partners, or mentors benefited from encouragement, perspective, job leads, and assistance with applications and interviews. However, seven reported significant isolation due to previous relationship damage and ongoing withdrawal during recovery, leaving them with minimal social capital for career advancement or emotional support. For these individuals, the counselor relationship often became the primary supportive tie, increasing the relational weight of the therapeutic alliance.

Informational interviews and networking assignments also functioned as social-capital-building interventions, sometimes leading to ongoing mentoring relationships or professional connections. Five participants joined career-related communities or networks during the intervention, actively working to

rebuild social resources. These patterns highlight the importance of assessing social networks as both a recovery and career resource and, where necessary, incorporating social skills training and facilitated networking (Bountress et al., 2019; Stevens et al., 2021).

The counselor alliance itself emerged as a uniquely central support. Participants uniformly described the relationship as essential to engagement and change, valuing unconditional acceptance despite gaming histories, realistic yet hopeful expectations, expertise, consistency, and balance of challenge and support. Many contrasted this with previous experiences of judgmental or rigid helpers. The working alliance enabled emotional safety, modeled healthy relationships, offered a secure base for exposure to new experiences, and provided accountability. Although not directly quantified, qualitative data consistently placed the alliance among the most influential intervention elements, echoing psychotherapy findings that alliance is a key common factor across modalities and problems (Brown & Lent, 2021; Porfeli & Savickas, 2012).

Finally, structural resources and opportunity structures—educational access, labor markets, transportation, technology, and financial means—shaped what was realistically possible. Urban residents with public transport and diverse job markets reported more options than those in rural or suburban areas with limited local opportunities and car-dependent access. Financial constraints forced some participants into immediate, lower-quality jobs, limiting education or internships, while others with more economic security could invest in longer-term training.

Institutional policies (e.g., re-enrollment rules after academic dismissal) created significant barriers for some, requiring advocacy and navigation support. Although most participants had basic technology from prior gaming, some lacked professional tools (e.g., software, reliable devices for video interviews) that counselors helped secure. These findings underline that vocational rehabilitation must address structural barriers through resource linkage and advocacy, not only individual change, and align with ecological perspectives on person–environment fit (Burleigh et al., 2018; Gullo et al., 2022).

Cross-Theme Integration and Emergent Theoretical Framework

Taken together, the five themes—vocational identity reconstruction; skill recognition and confidence; graduated exposure and behavioral activation; recovery–career integration; and social–environmental facilitation—form an integrated framework of vocational rehabilitation processes for young adults recovering from IGD. Across successful cases, early gains in identity clarity

appeared to provide psychological “scaffolding” for later skill development, behavioral activation, and environmental engagement. Participants who clarified their vocational stories and goals earlier tended to engage more confidently and strategically in exposure activities and skill-building, consistent with career construction theory’s view of identity as the organizing “why” that guides the “what” and “how” of career behavior (Brown & Lent, 2021). At the same time, engagement in real-world activities fed back into identity, refining and sometimes revising emerging self-concepts through cycles of action, feedback, and reflection, indicating a reciprocal, iterative process.

Recovery integration distinguished this framework from standard career counseling models. For this population, successful vocational progress and sustained recovery were mutually reinforcing when explicitly integrated in counseling, and potentially conflicting when treated as separate or competing demands. The most robust outcomes occurred where counselors framed career development as recovery-supportive, paced goals in line with recovery stability, and actively monitored gaming behavior and urges. This suggests that optimal rehabilitation requires dual competence in career and addiction domains and aligns with recovery-oriented systems of care emphasizing holistic functioning (Grall-Bronnec et al., 2021; Stevens et al., 2021).

Social-environmental supports permeated all other domains. The therapeutic alliance served as a “holding environment” for identity exploration, skill development, exposure planning, and recovery-career problem-solving. Family and peers extended support into daily life, while structural resources and opportunity structures constrained or expanded possibilities. Effective rehabilitation, therefore, appears inherently ecological: it must address identity, skills, behavior, recovery, and environment in an integrated, flexible way, grounded in strong relationships and adapted to each person’s context (Baker-Ericzén et al., 2022; Brown & Lent, 2021). The intersection of vocational rehabilitation and behavioral addiction recovery aligns with broader evidence on career trajectories in substance use disorder populations. Recent scoping review by Maynes et al., (2024) emphasizes that employment provides more than economic benefits for individuals in recovery—it generates purpose, structure, and identity that directly compete with addictive behaviors.

Their synthesis of career outcome literature demonstrates that longer recovery duration correlates with improved employment quality and vocational achievement, supporting this study's finding that career progress and recovery stability mutually reinforce one another. For young adults recovering from IGD, meaningful vocational engagement may serve similar

protective functions by filling time previously devoted to gaming, creating pro-social networks incompatible with problematic play, and fostering adult role commitments that gaming would jeopardize. The present findings extend substance use recovery frameworks to behavioral addictions by documenting how structured career guidance specifically targets vocational deficits accumulated during intensive gaming periods.

The vocational challenges observed among IGD-recovering participants reflect broader patterns documented in gaming disorder populations worldwide. Their systematic review across 17 countries documented substantial functional impairments associated with gaming disorder, including educational disruption, employment difficulties, and delayed developmental transitions—patterns remarkably consistent with the vocational identity confusion, skill-confidence deficits, and career avoidance behaviors observed in this study's sample.

The convergence between large-scale epidemiological findings and this qualitative investigation strengthens confidence that vocational rehabilitation addresses genuine, widespread functional needs rather than isolated difficulties. Moreover, Stevens et al.'s documentation of cross-cultural gaming disorder prevalence suggests that career guidance models developed in this context may demonstrate transferability across diverse geographic and cultural settings, provided appropriate cultural adaptations are implemented. The integrated recovery-career framework developed through this research resonates with contemporary recovery-oriented systems of care conceptualizations. Sinclair et al., (2024) Conducted scoping review of recovery-supportive interventions demonstrating that holistic, multi-domain approaches produce superior outcomes compared to symptom-focused treatments alone.

Their analysis highlighted that effective recovery support addresses social functioning, relationships, community integration, and quality of life—domains inherently connected to vocational functioning and career development. For young adults with IGD, vocational rehabilitation may represent a particularly strategic recovery support mechanism because career development naturally encompasses multiple recovery-relevant domains: it builds social capital through professional networks, generates community integration through workplace participation, enhances self-efficacy through skill mastery and achievement, and promotes future orientation that directly counters the present-focused engagement characteristic of problematic gaming. This study's finding that career-recovery integration produces mutually reinforcing benefits suggests that vocational rehabilitation should be conceptualized as a core recovery support rather than an adjunctive service,

particularly for populations whose functional impairments center on education, employment, and developmental role transitions.

Practical Implications, Limitations, and Future Research Directions

These findings yield several practical implications for vocational rehabilitation and related services for young adults recovering from IGD and potentially other behavioral addictions. First, vocational identity reconstruction should be treated as a core intervention focus; sufficient time for assessment, values clarification, and narrative work is needed before intensive employment placement, particularly for individuals whose identity has been heavily organized around gaming (Porfeli & Savickas, 2012). Second, effective practice must integrate strength recognition—including explicit reframing of gaming-derived skills—with realistic skill-gap analysis and targeted development, avoiding extremes of deficit-only or uncritical strengths-only approaches (Baker-Ericzén et al., 2022; Brown & Lent, 2021).

Third, programs should systematically incorporate graduated exposure and behavioral activation, moving beyond insight-only counseling toward structured action plans involving informational interviews, shadowing, volunteering, and supported job search. Fourth, vocational services for this population should be explicitly recovery-informed: counselors need basic addiction knowledge, skills in relapse prevention, and close collaboration with mental health providers rather than maintaining strict service silos (Grall-Bronnec et al., 2021; Stevens et al., 2021). Fifth, interventions should routinely assess and engage social and environmental contexts—family dynamics, peer networks, community resources, and structural barriers—potentially including family sessions, networking facilitation, and advocacy for educational or employment access (Bountress et al., 2019).

Important limitations temper these implications. The small sample (N = 12) and purposive recruitment may limit generalizability, as participants willing to commit to a 12-session program may be more motivated or stable than the broader IGD population. The single metropolitan setting constrains cultural and geographic transferability, as gaming cultures, stigma, and opportunity structures differ across regions. The absence of a control group precludes strong causal conclusions; natural recovery, maturation, or concurrent treatments may have contributed to improvements despite temporal links with the intervention.

The six-month follow-up provides only a short- to medium-term perspective, leaving long-term career and recovery trajectories unknown. Reliance on self-report for some outcomes raises concerns about bias, although triangulation partially mitigates this. Finally, the focus on individuals

with at least six months of recovery limits insight into how vocational rehabilitation might function for those at earlier recovery stages or with ongoing problematic gaming (Burleigh et al., 2018; Efrati et al., 2020). Future research should extend this work in several directions. Randomized controlled trials comparing this integrated vocational model with treatment-as-usual or alternative interventions would strengthen causal inference and help isolate active ingredients.

Longer-term longitudinal studies (2–5 years) are needed to evaluate durability of career and recovery gains. Cross-cultural and multi-site research could clarify how processes vary across contexts, service systems, and labor markets, informing cultural and structural adaptation (Gullo et al., 2022). Component (dismantling) studies could identify which elements—identity work, skill development, graduated exposure, recovery integration—most strongly drive outcomes and for whom. Moderator analyses examining demographic factors, gaming histories, comorbidity, and recovery duration would guide targeted tailoring.

Incorporating objective indicators (e.g., employment records, educational completion, neurocognitive markers) alongside self-report would expand the validity of outcome assessment. Finally, implementation research on feasibility, acceptability, cost-effectiveness, and scalability within real-world treatment systems would support translation into routine practice, advancing vocational rehabilitation as a standard component of comprehensive care for young adults recovering from IGD (Gullo et al., 2022; Stevens et al., 2021).

CONCLUSION

This multiple case study demonstrates that vocational rehabilitation counseling using career guidance approaches effectively supports young adults recovering from Internet Gaming Disorder. Structured counseling addressing identity rebuilding, skill recognition, behavioral activation, and recovery integration produced meaningful improvements in career decision-making confidence, vocational identity clarity, work readiness, and employment outcomes, with gains persisting at six-month follow-up. These findings establish vocational rehabilitation as central to IGD recovery, requiring targeted support beyond symptom-focused treatment. Key theoretical insights emerged regarding vocational rehabilitation's role in recovery. Identity reconstruction functions as a mechanism supporting both career exploration and psychological stabilization, while gaming-developed skills can be reframed as transferable strengths. Graduated exposure translates readiness into action, and career-recovery integration proves mutually reinforcing. In conclusion, career-focused counseling plays a vital

role in helping young adults recovering from IGD rebuild productive lives. Tailored vocational rehabilitation promotes career progress, strengthens recovery stability, and provides a practical pathway toward sustainable functioning beyond gaming contexts.

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throughout the demanding phases of data collection, analysis, and writing. This study is dedicated to all young adults whose career development has been disrupted by behavioral addictions, with the hope that our findings support more responsive services, reduce stigma, and help individuals in recovery build meaningful, fulfilling lives beyond the virtual worlds that once constrained them.

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