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Empowering career pathways: integrating self-regulation strategies with career counseling practices

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Introduction: This study explores the integration of self-regulation strategies into career counseling to enhance career development. It outlines the rationale behind this integration and sets the objectives of providing practical strategies for educators and counselors to support career paths.

Methods: The theoretical framework examines the role of self-regulation in career development and its intersection with career counseling in the modern workforce. Practical applications include self-regulation techniques for career advancement, career counseling interventions, and case studies.

Results: The application of these strategies is compiled into a resource manual, which includes tools, assessments, and activities for clients, as well as resources for career counselors. This manual serves as a practical toolkit for implementing the guide's recommendations.

Discussion: The conclusion highlights the contributions of the guide, reflecting on the integration of self-regulation and career counseling. Policy implications are discussed, with recommendations for education and workforce development, advocating for the institutionalization of self-regulation in career services. Future research and policy directions are suggested, emphasizing the importance of this integration for educational achievement and personal satisfaction. Overall, the guide offers a novel approach to career counseling, grounded in self-regulation theory and practice, providing a comprehensive resource for enhancing career pathways.

KEYWORDS

empowering career pathways, self-regulation strategies, integration, career counseling, practice

1 Introduction

The domain of career development is in a state of perpetual flux, driven by the changing dynamics of the global economy, technological advancements, and evolving job markets. In response to these shifts, there is a growing need for innovative approaches that not only respond to the changes but also empower individuals to take charge of their career paths. The concept of integrating self-regulation strategies with career counseling practices is emerging as a transformative approach in this context (Tang et al., 2021; Rottinghaus and Eshelman, 2015). This integration is the focus of the article "Empowering Career Pathways: Integrating Self-Regulation Strategies with Career Counseling Practices," which argues that such a synthesis can significantly enhance the process of career development. It

provides a robust framework that enables individuals to navigate their career paths with greater autonomy and effectiveness, thus responding to the contemporary demands of career progression.

The rationale for integrating self-regulation strategies into career counseling (Hsu et al., 2022) is grounded in the recognition that successful career development is not solely the product of external guidance and opportunities but also the result of internal self-management and goal-directed behavior. Self-regulation, which encompasses the ability to manage one's thoughts, emotions, and behaviors toward achieving long-term goals, is a critical skill in the self-directed process of career development (van der Heijde, 2014). It empowers individuals to set career goals, devise and follow through with plans, and persist in the face of setbacks (Bazine et al., 2023). On the other hand, career counseling has traditionally focused on helping individuals understand their interests, values, and skills to make informed career choices (UNESCO, 2002). By merging self-regulation strategies with career counseling, counselors can provide individuals with not only the knowledge of their professional inclinations but also the skills to actively shape their career trajectories (van der Heijde, 2014).

Self-regulation strategies are uniquely focused on empowering individuals to actively manage their career development, contrasting with traditional career counseling approaches that primarily offer external guidance and support. By emphasizing internal self-management and goal-directed behavior, self-regulation strategies foster a sense of autonomy and personal responsibility, which are crucial for long-term career success. The integration of self-regulation strategies in career counseling offers several advantages. Firstly, they enable individuals to set realistic and attainable career goals, essential for maintaining motivation and direction. Secondly, by cultivating a growth mindset and resilience, these strategies help individuals overcome challenges and setbacks, ensuring sustained progress. Thirdly, self-regulation strategies boost individuals' confidence in their ability to achieve career goals, thereby enhancing overall self-efficacy and performance in career-related tasks. Additionally, they encourage the development of personalized action plans tailored to individual strengths and weaknesses, leading to more effective and targeted career development efforts. Finally, by promoting reflective thinking and self-assessment, self-regulation strategies improve decision-making skills, enabling individuals to make informed and strategic career choices. In summary, the integration of self-regulation strategies in career counseling empowers individuals to shape their career trajectories with greater autonomy, resilience, and effectiveness.

The guide's primary objective is to equip educators and counselors with actionable strategies that integrate self-regulation into career counseling. These strategies are designed to support individuals in identifying and setting realistic and attainable career goals, developing personalized action plans, cultivating resilience and a growth mindset to overcome challenges, and enhancing decision-making skills and self-efficacy in career-related tasks. Moreover, the guide serves as a comprehensive resource for enhancing the career pathways of educators and learners by offering a theoretical foundation for the integration of self-regulation and career counseling, presenting practical applications, including techniques, interventions, and case studies,

and providing a resource manual with tools, assessments, and activities for clients and career counselors. Additionally, it discusses policy implications to inform education and workforce development, thereby contributing to the broader discourse on career advancement and personal fulfillment.

2 Theoretical foundations

Self-regulation is identified as the driving force behind individuals' ability to set and achieve professional goals (Porath and Bateman, 2006), necessitating a mastery of personal assessment, goal-setting, and adaptive learning. Modern career counseling has transcended traditional vocational guidance, focusing instead on equipping individuals with resilience, adaptability, and a proactive management approach to navigate the complexities of a globalized job market (Højdal, 2020). At the intersection of these domains lies a powerful fusion where career counseling enriched with self-regulation strategies empowers clients to take command of their career journeys, fostering a sense of agency and the ability to tailor their professional paths with informed, strategic actions. This comprehensive approach promises to enhance career satisfaction and success in an ever-evolving employment landscape (Hartung and Cadaret, 2017). In addition to the literature review, this study creatively integrates "self-regulation strategies" and "career counseling practices" by exploring their synergistic effects on career development.

2.1 Self-regulation in career development

Self-regulation is the cornerstone of career development (Hsu et al., 2022), acting as the driving force that propels individuals toward their goals. It is a multifaceted construct that includes the ability to formulate clear objectives, develop strategic plans, and execute actions that lead to goal attainment (Coetzee, 2019). In the journey of career advancement, self-regulation is manifested through an individual's capacity for introspection (Dangond, 2020), allowing for the assessment of personal strengths and areas for improvement. Setting realistic career objectives is a critical step in this process, requiring individuals to align their aspirations with their capabilities and the opportunities available in the job market.

The self-regulatory framework is built upon the cyclical process of goal-setting, self-observation, self-judgment, and self-reaction (Cleary and Zimmerman, 2012; Panadero and Alonso-Tapia, 2014). Goal-setting involves establishing specific, measurable, achievable, relevant, and time-bound (SMART) objectives that provide direction and purpose. Self-observation allows individuals to monitor their progress, gathering data on their performance and experiences (Dignath et al., 2023). Self-judgment entails evaluating this information against personal standards and benchmarks, leading to self-reaction (Yan et al., 2023), where individuals adjust their strategies and efforts based on their evaluations.

This dynamic process is underpinned by self-efficacy beliefs—the conviction in one's abilities to execute the actions required to manage prospective situations (Cervone et al., 2004). These beliefs are crucial as they determine the amount of effort individuals will

expend and how long they will persevere in the face of obstacles (Pajares, 2008). Outcome expectations also play a significant role, as individuals are more likely to engage in activities that they believe will lead to desirable outcomes (Lippke, 2020).

Recent research has expanded the concept of self-regulation in career development to include emotional regulation and the management of work-life balance. Emotional regulation refers to the ability to manage emotional responses in a way that is conducive to goal achievement, while work-life balance involves regulating one's time and energy across various life domains to prevent burnout and maintain overall wellbeing (Urquijo et al., 2019).

In summary, self-regulation in career development is not a static skill but a dynamic process that evolves as individuals progress through different stages of their careers. It is a critical component that enables individuals to navigate the complexities of the modern workforce, adapt to changes, and ultimately achieve professional success and personal satisfaction.

2.2 Career counseling in the modern workforce

The field of career counseling has undergone a significant transformation to align with the intricacies of the modern workforce (Højdal, 2020). This evolution has been driven by rapid technological advancements, the globalization of economies, and an overarching need for individuals to engage in lifelong learning. In today's world, career counseling transcends the traditional role of aiding individuals in selecting a profession. It has expanded to provide comprehensive tools that enable individuals to adeptly navigate through a multifaceted and dynamic employment landscape.

Modern career counseling is characterized by its emphasis on developing a broad range of competencies that equip individuals for adaptability and resilience in the face of labor market fluctuations (Ferrari et al., 2017). Counselors advocate for a proactive approach to career management, where individuals are encouraged to anticipate changes and prepare accordingly (Peng et al., 2021), rather than reactively adapting to them. This proactive stance is crucial in a world where career paths are no longer linear (Jiang et al., 2023) but are instead marked by frequent transitions, lateral moves, and sometimes complete industry shifts.

The role of career counselors has also adapted to emphasize the importance of a versatile skill set (Koen and Sijbom, 2020). They focus on helping clients understand not only their personal interests and aptitudes but also the broader economic trends that could impact their career choices (Zunker, 2008). Counselors guide individuals in identifying transferable skills that can be applied across various roles and industries (Tang et al., 2021), thereby increasing their employability in a competitive job market.

Furthermore, career counselors now play a pivotal role in preparing individuals for multiple career transitions (Mussagulova et al., 2023). This preparation involves fostering a mindset geared toward continuous development and learning (Zunker, 2008), ensuring that individuals remain relevant and agile in their professional pursuits. Counselors also support clients in understanding the global context of their careers, including

the implications of economic trends, outsourcing, and the digitalization of work.

In essence, career counseling in the modern workforce is a comprehensive endeavor that not only assists individuals in making informed career decisions but also empowers them with the strategies and mindset needed to thrive in an ever-evolving professional environment (Whiston et al., 2017). It is a forward-thinking practice that recognizes the complexities of the contemporary job market and provides individuals with the resilience and adaptability to navigate their careers successfully.

2.3 Intersection of self-regulation and career counseling

The confluence of self-regulation and career counseling represents a paradigm shift in empowering individuals to master their professional destinies (Hartung, 2019; van der Heijde, 2014). This intersection is the crucible where the most effective strategies for career advancement are forged (Hsu et al., 2022), blending the introspective art of self-regulation with the strategic guidance of career counseling. The integration of these domains is instrumental in cultivating a sense of personal agency among clients (Hirschi and Koen, 2021), which is essential for them to assume control over their career development journey.

Incorporating self-regulation into career counseling involves a holistic approach (Zunker, 2015) where counselors support clients not just in identifying their career interests but also in developing the requisite self-regulatory skills to realize their career aspirations. This process is multifaceted, encompassing the establishment of SMART goals, the creation of detailed action plans, and the cultivation of self-monitoring practices that enable clients to track their progress (Greco and Kraimer, 2020).

Clients are also coached on how to engage in self-reflection and self-assessment, allowing them to evaluate their strategies and outcomes (Zi Yan et al., 2023). This reflective practice is crucial for adapting to feedback and evolving circumstances, ensuring that clients remain agile and responsive to the dynamic nature of the modern workforce (del Corso, 2017). Career counselors play a pivotal role in this process (van der Heijde, 2014), providing the tools and frameworks necessary for clients to develop these competencies.

Ultimately, by integrating self-regulation into career counseling, individuals are empowered to become the architects of their own career pathways. They learn to navigate the complexities of the job market with confidence and agility, making informed decisions that align with their long-term professional and personal goals. This empowerment leads to more engaged, proactive, and resilient professionals who are better equipped to handle the challenges and opportunities of the 21st-century workplace. The result is a workforce that is not only more adaptable and innovative but also more fulfilled and aligned with their career objectives.

3 Practical applications

In the realm of career development, practical applications of self-regulation strategies and career counseling practices are pivotal in fostering an environment where individuals can thrive professionally. The integration of goal-setting, time management, self-monitoring, and emotional regulation into career planning equips individuals with a robust framework to independently navigate their career trajectories. Concurrently, career counseling interventions have been refined to address the complexities of modern career paths, offering personalized assessments, networking techniques, and skill-enhancement workshops. These interventions are complemented by mentorship opportunities that provide invaluable guidance. Furthermore, the utilization of case studies and best practices in career counseling not only serves as a testament to the efficacy of these approaches but also provides a repository of actionable insights for career counselors. Collectively, these strategies and interventions constitute a comprehensive approach that empowers individuals to proactively shape their career journeys, adapt to evolving professional landscapes, and achieve their aspirations with confidence and resilience.

3.1 Self-regulation techniques for career advancement

Self-regulation techniques are integral to career advancement (Hsu et al., 2022), providing a structured approach for individuals to actively engage in their professional development. The first step in this process is goal-setting, a technique that encourages individuals to define their career aspirations in terms of clear, measurable, and achievable objectives. This clarity of purpose serves as a roadmap, guiding individuals toward their desired outcomes. For example, consider an individual currently employed as a marketing assistant with aspirations to ascend to a marketing manager role. Rather than setting an indeterminate objective such as “I aim to become a manager eventually,” a precise and quantifiable target is advisable: “My goal is to secure a promotion to a marketing manager role within a three-year timeframe.” To render this ambition attainable, one might delineate the requisite milestones, for instance, “I shall pursue and complete a professional certification in digital marketing within the forthcoming year and successfully spearhead a minimum of two significant marketing campaigns.”

Mastering time management and prioritization are the next pillars for effective self-regulation and career growth. These skills transcend basic scheduling, demanding a strategic organization of tasks to maximize productivity and prevent the oversight of key career objectives. Time management is the art of planning and exerting deliberate control over time dedicated to various activities, aiming to work more intelligently to bolster efficiency and goal attainment. Prioritization, on the other hand, entails arranging tasks by their significance or urgency, thus concentrating efforts on what's essential and sidestepping the trap of less important undertakings. Consider a project manager weighed

down by concurrent duties: an imminent project deadline, an upcoming team meeting, and a professional development course. Employing effective time management, the manager would designate specific time segments for each task—project work, meeting preparation, and course study. Prioritization dictates that the project deadline, being both urgent and crucial, takes precedence. The team meeting follows, important yet less pressing. The course, while valuable for long-term career enhancement, ranks lower in urgency and could be scheduled post-deadline. Such proficiency in managing time and setting priorities not only propels one's career forward by ensuring deadlines are met and skills are honed but also diminishes stress and elevate overall career success.

Self-monitoring is another vital component of self-regulation, serving as a personal audit system that enables individuals to continuously evaluate their performance and progress (Panadero, 2017). It's an introspective process where one regularly reviews their actions, outcomes, and the effectiveness of their strategies. By doing so, they can pinpoint strengths to capitalize on and weaknesses that need attention. This reflective practice is not just about acknowledging what's been done, but also about critically analyzing how it aligns with one's career objectives and what adjustments might be necessary to stay on track. For example, a graphic designer might set a goal to improve their design skills. Through self-monitoring, they would regularly assess their work, perhaps by comparing recent projects to earlier ones, seeking feedback from peers, or measuring the time taken to complete tasks. They might notice they're spending too much time on initial concepts, which could be streamlined. With this insight, they can adjust their approach, perhaps by setting time limits for conceptualization or seeking inspiration more efficiently, thereby improving their workflow and moving closer to their goal of becoming a more proficient designer.

Emotional regulation is also a key facet of self-regulation, encompassing the methods and strategies that individuals use to manage their emotions effectively (Alarcón-Espinoza et al., 2022). It's about understanding and controlling emotional responses in various situations (Mcrae and Gross, 2020), particularly those that are stressful or challenging. This skill is crucial for maintaining motivation and focus, especially during the ups and downs of career progression. Emotional resilience, which is the ability to bounce back from adversity, plays a significant role in this process. It allows individuals to handle setbacks and continue working toward their objectives without losing sight of their long-term aspirations. For instance, consider a salesperson who faces rejection after a series of client meetings. Instead of allowing discouragement to take over, they apply emotional regulation techniques such as positive self-talk, reframing the experience as a learning opportunity, or engaging in stress-relieving activities like exercise. This helps them maintain a balanced perspective, stay motivated, and prepare for future interactions with a renewed sense of purpose and strategy. Such emotional agility can be the difference between giving up and moving forward with determination in one's career.

These self-regulation techniques are not isolated tools but are integrated into comprehensive career planning activities. Workshops and one-on-one counseling sessions are designed to teach these techniques, providing individuals with a supportive environment to practice and refine their skills. Through these

interactive experiences, individuals learn to apply self-regulation strategies to real-world scenarios, enhancing their ability to independently navigate their career paths with confidence.

3.2 Career counseling interventions

Career counseling interventions are fundamental to contemporary career progression (Hartung et al., 2015), clearly mirroring the active exchange between an individual's career goals and the changing requirements of the job market. These interventions are comprehensive and distinct, with each one purposefully crafted to target particular elements of professional advancement and change.

Career Assessments are integral to career counseling, offering personalized insights into an individual's unique interests, values, and skills (McMahon and Patton, 2015). By employing a range of psychometric evaluations and introspective activities, clients can reveal their natural professional tendencies and synchronize their career trajectories with their inherent abilities and enthusiasms. For example, a software engineer might take a career assessment that reveals a strong aptitude for team leadership and a passion for education. This realization could lead them to transition into a role as a technical trainer, where they can utilize their technical expertise while fulfilling their interest in mentoring others. This correction clarifies the purpose of career assessments and provides a concrete example of how they can guide an individual toward a career that resonates with their personal profile.

Informational Interviews are a key component of career exploration (Kanar, 2023), providing direct insights from experienced professionals about specific industries. These dialogues help to clarify the day-to-day responsibilities, challenges, and opportunities within various roles and sectors. They are particularly effective in revealing the inner workings of professions, thereby aiding individuals in making informed career decisions. For instance, a recent graduate interested in the renewable energy sector could conduct an informational interview with a solar energy engineer. This conversation would illuminate the engineer's daily tasks, the skills required in the field, and the industry's growth potential. It would also offer the graduate a realistic view of the sector's challenges, such as regulatory changes and technological advancements.

Networking Strategies play a crucial role in career development, highlighting the value of building and nurturing professional connections. These strategies guide clients in establishing and sustaining relationships that can lead to new opportunities and ongoing career support. A robust network can be instrumental in accessing the hidden job market and obtaining valuable referrals. For example, a marketing professional might join a local business association to meet potential clients and collaborators. By actively participating in events and offering help to others, they can establish a reputation as a reliable and knowledgeable professional. Over time, these connections could lead to job offers, partnerships, or client referrals that may not have been advertised publicly.

Resume and Interview (Anaza et al., 2023) Workshops are essential in refining the skills necessary for successful job applications. These workshops offer expert advice on crafting

effective resumes and excelling in interviews. Aimed at empowering clients, they focus on presenting one's background and abilities persuasively, thereby enhancing prospects in a demanding job market. For instance, a recent graduate may attend a workshop that teaches how to highlight educational achievements and internships on a resume to compensate for a lack of extensive work experience. The workshop might also conduct mock interviews, providing feedback on body language and answer delivery, which helps the graduate become more confident and articulate.

Mentorship Programs are a vital aspect of professional development, connecting individuals with experienced mentors who provide tailored guidance and support (Treasure et al., 2022). These programs facilitate the transfer of industry knowledge and personal insights, assisting mentees in making strategic career decisions. For example, a junior accountant might be paired with a CFO mentor through a professional accounting organization's mentorship program. The CFO could offer the mentee practical advice on career progression, help them understand industry trends, and provide feedback on their professional challenges. This mentorship could lead to the junior accountant taking on more complex projects, gaining confidence in their role, and setting clear career goals.

Career counseling interventions are dynamic and tailored, designed to meet the varied requirements of clients at any point in their career journey (Hartung et al., 2015). They are flexible enough to support those entering the workforce, professionals contemplating a career shift, or individuals aspiring for higher positions. Take, for example, a mid-level manager considering a transition into the non-profit sector. Career counselors can offer specialized assessments to determine if this shift aligns with their values and skills, provide informational interviews with non-profit leaders, and suggest networking strategies to connect with key figures in the industry. This personalized approach ensures that the manager receives guidance that is not only relevant to their current aspirations but also effectively supports their transition into a new field.

Career counseling interventions are meticulously crafted to equip individuals with the essential knowledge, skills, and connections required to adeptly maneuver through the intricacies of today's career environment. When these strategies are incorporated into career counseling, professionals can significantly contribute to their clients' career progression (Whiston et al., 2017), enabling them to unlock their capabilities and attain their professional aspirations. For instance, a software developer looking to transition into a managerial role might benefit from such interventions. A career counselor could provide leadership workshops, connect the developer with a network of management professionals, and offer guidance on strategic career planning. This support helps the developer to build the necessary leadership skills, understand the responsibilities of a managerial position, and create a clear plan to achieve this new career objective.

3.3 Case studies and best practices

The Case Studies and Best Practices showcase real-world examples where individuals have successfully navigated career

challenges and transitions, often achieving significant professional milestones. However, to strengthen the representativeness and depth of analysis, we have revised the case studies to provide more detailed and diverse examples.

3.3.1 Case study 1: mid-level manager in technology

This case study presents a mid-level manager in the technology sector who encountered a plateau in her career progression. To address this, she employed self-regulation strategies, which are techniques that enable individuals to guide their behavior and actions toward achieving their goals. She began by setting explicit professional objectives, which provided her with direction and a sense of purpose. Recognizing the need for further education to advance, she then applied time management techniques to integrate advanced certification studies into her already busy schedule. This involved prioritizing her tasks, delegating when possible, and sacrificing some personal time to ensure she could meet her study commitments without compromising her work performance.

Her dedication to self-monitoring played a crucial role in this process. By tracking her progress toward her certifications and job responsibilities, she ensured neither was neglected. Emotional regulation was also critical, as it allowed her to manage the stress associated with juggling a full-time job and rigorous study. Techniques such as mindfulness, deep breathing, or structured breaks were used to maintain her wellbeing during this challenging period. The culmination of her efforts was a significant promotion to a senior management position. This new role was more in line with her long-term career goals, suggesting that it not only offered a higher level of responsibility but also a closer fit with her personal aspirations and values.

3.3.2 Case study 2: recent graduate entering the job market

This case describes the journey of a recent graduate facing the challenge of entering a highly competitive job market. Initially, the graduate was unsure of how to leverage his skills and qualifications, or even what career path to pursue. Career counseling interventions played a transformative role in his job search and career planning.

The first step was engaging in comprehensive career assessments, including a variety of tests and questionnaires designed to identify his interests, values, personality traits, and skills. The results provided him with a clearer picture of his professional strengths and how they could be applied in the workforce.

Armed with this self-knowledge, the graduate participated in informational interviews with professionals already working in his field of interest. These interviews provided valuable insights into the day-to-day realities of the roles he was considering, as well as advice on how to break into the field.

Networking strategies were also a key component of his career counseling. He was advised on how to build and maintain professional relationships, including attending industry events, joining professional organizations, and reaching out to potential employers or mentors. These activities expanded his professional

network, which is often crucial for discovering job opportunities, especially those that are not advertised.

Resume and interview workshops ensured that he knew how to present his experiences and skills effectively. These workshops covered how to create a standout resume, write a compelling cover letter, and handle common interview questions. The skills he learned increased his confidence and effectiveness in job applications.

Finally, a mentorship program provided him with ongoing support. A more experienced professional offered guidance, shared their own career experiences, and provided feedback and encouragement as he applied for jobs and adjusted to professional life.

Overall, this case study exemplifies how a structured and multifaceted approach to career counseling can help an individual overcome barriers to entering a competitive field and lay the groundwork for a successful career. The interventions provided the graduate with the tools, knowledge, and support necessary to navigate the early stages of his professional journey.

Best practices derived from these and other case studies emphasize the importance of personalized career plans that incorporate continuous learning and upskilling. They highlight the need for resilience and adaptability in the face of change and underscore the value of a supportive network. Career counselors and educators are encouraged to use these narratives to inform their practice, tailoring interventions to the individual needs of their clients.

These case studies and best practices not only serve as evidence of the effectiveness but also act as a blueprint for others. They demonstrate that with the right strategies and support, individuals can empower themselves to take charge of their career paths and achieve their professional goals.

4 Resource manual

The Resource Manual is a comprehensive guide designed to empower individuals on their career pathways by integrating self-regulation strategies with career counseling practices. The first subsection provides an array of tools and assessments, which are crucial for fostering self-awareness and self-regulation in career development. The second subsection offers curated resources for career counselors. The third subsection presents engaging worksheets and activities that encourage clients to actively participate in their career development. Collectively, these resources form a robust toolkit that not only facilitates the application of the guide's recommendations but also significantly contributes to the advancement of career pathways through informed, self-regulated strategies (Table 1).

4.1 Tools and assessments for self-regulation

This segment of the Resource Manual is crucial, focusing on strengthening self-regulation in career development. It provides a comprehensive review of diverse tools and assessments that play a key role in this improvement process. However, the section

TABLE 1 Comparison of tools and their applications in career development.

Tool	Purpose	Key features	Application in practice
Myers-Briggs Type Indicator (MBTI)	Discern personality types and preferences	Sorts individuals into 16 personality types based on four domains: focus of attention, information processing, decision-making, and external world interaction	Helps individuals understand their preferred work styles and communication approaches, aiding in career trajectory planning
CliftonStrengths (formerly StrengthsFinder)	Identify top strengths and talents	Pinpoints top 5 strengths from 34 talent themes	Enables individuals to focus on their inherent talents, guiding career development toward roles that align with their strengths
Work Personality Index	Measure job performance and satisfaction-related characteristics	Evaluates professional demeanor, vigor, and stress resilience	Assists in selecting work settings and roles that match an individual's personality and professional behavior
Career Anchors	Reveal fundamental career values and drivers	Identifies key elements that make work fulfilling (e.g., independence, stability, expertise, and service)	Helps individuals understand what they value most in their careers, guiding career choices, and development
Emotional Intelligence (EI) Assessments	Gauge emotional intelligence and its impact on job performance	Measures ability to identify, use, understand, and regulate emotions	Enhances job performance and leadership skills by improving emotional regulation and workplace adaptability

should avoid excessive descriptive content and instead focus on the effective combination and rational use of various career techniques and tools.

The Myers-Briggs Type Indicator (MBTI) stands as a foundational instrument for discerning personality types (Zárate-Torres and Correa, 2023; Randall et al., 2017), sorting individuals into one of 16 unique personality categories based on their predilections in four distinct domains: the focus of attention, information processing, decision-making, and external world interaction. Comprehending one's MBTI classification can provide valuable insights into preferred work styles, communication approaches, and viable career trajectories.

Formerly known as StrengthsFinder (Schreiner, 2006), CliftonStrengths assists individuals in pinpointing their foremost five strengths from a set of 34 distinct talent themes. The underlying principle of this assessment is that success is most likely when one capitalizes on their inherent talents. Concentrating on these strengths enables individuals to customize their career development endeavors toward roles that resonate with their natural capabilities (Miglianico et al., 2020).

The Work Personality Index (Macnab and Bakker, 2001) is an evaluative tool that measures essential characteristics pertinent to job performance and contentment. It sheds light on an individual's professional demeanor, vigor, and resilience to stress, all of which are pivotal in selecting appropriate work settings and roles that are congruent with their persona.

Career Anchors is a diagnostic tool that reveals the fundamental values and drivers in an individual's professional life. It aids in discerning the essential elements that render work gratifying for an individual, be it independence, stability, the chance to cultivate expertise, or a commitment to service (Abessolo et al., 2017).

Assessments of Emotional Intelligence (EI) gauge an individual's capacity to identify, utilize, comprehend, and regulate emotions (Guerra, 2011; O'Connor et al., 2019). A high degree of EI is associated with enhanced job performance, leadership acumen, and adeptness in surmounting workplace

hurdles (Doğru, 2022). Resources like the Emotional Intelligence Appraisal offer evaluative feedback on EI skills and propose strategies for development (O'Connor et al., 2019).

These instruments and evaluations play a pivotal role in nurturing self-awareness, a fundamental aspect of self-regulation. They equip individuals with an understanding of their professional conduct, predilections, and emotional tendencies, which is indispensable for informed career decision-making and proactive career progression. Integrating these tools into career counseling enables counselors to offer focused assistance and emboldens individuals to confidently steer their career development.

4.2 Resources for career counselors

The Resources for Career Counselors part is a comprehensive compilation of materials and tools designed to augment the proficiency of career counselors in guiding their clients toward successful career paths. This part underscores the importance of continuous professional development and provides a variety of resources to support this endeavor.

The National Career Development Association (NCDA) serves as an indispensable resource, providing a comprehensive suite of publications, standards, and advocacy tools. These resources are crucial for career counselors to remain abreast of the latest industry trends and to maintain exemplary professional standards. The NCDA's publications, including scholarly journals and informative newsletters, offer in-depth analyses of contemporary research and its practical implications in the field of career development. For example, the NCDA's journal might feature a study on the efficacy of virtual career fairs in connecting job seekers with employers during the recent shift to remote work environments. This research could provide evidence-based strategies for career counselors to assist clients in navigating virtual job search platforms effectively.

In addition to this resource, career counselors have access to a variety of digital platforms and apps that offer innovative

approaches to career coaching. For instance, online assessments and virtual career counseling tools have become increasingly popular, providing counselors with the flexibility to support clients remotely. These digital solutions are particularly useful in today's fast-paced and technology-driven world, where clients may seek counseling outside of traditional settings.

Furthermore, career counselors can benefit from specialized training and certification programs that enhance their counseling skills and knowledge. For example, the American Counseling Association (ACA) offers a career center with resources for professional development and job opportunities in the field. These programs ensure that counselors are equipped with the latest counseling techniques and are competent in addressing the diverse needs of their clients.

Overall, the Resources for Career Counselors is an invaluable asset for professionals in the field. It provides them with the tools and knowledge necessary to deliver high-quality career counseling services. By leveraging these resources, career counselors can effectively support their clients in navigating the complexities of the career development process and achieving their professional goals.

4.3 Worksheets and activities for clients

These worksheets and activities are an essential component of the Resource Manual, designed to actively engage clients in the career counseling process. These interactive tools are not only practical but also pivotal in facilitating clients' self-exploration and planning for career advancement.

Career Goal Articulation Worksheets are one of the primary tools used to help clients define their career aspirations. These worksheets guide clients through a series of thought-provoking questions that encourage them to consider their long-term vision, the impact they wish to make in their field, and the steps needed to achieve their objectives. For instance, a worksheet might prompt clients to list their top five career goals and the resources they require to attain them.

Skills and Interests Reflection Sheets provide a structured format for clients to assess their abilities and passions. These sheets often include checklists and scales that clients can use to rate their proficiency in various skills and their interest level in different job functions. This reflective exercise helps clients identify areas where their skills and interests intersect, which can inform their career choices.

Actionable Plan Development Templates are designed to translate insights from reflection into concrete plans. These templates typically include goal-setting frameworks, such as SMART goals, and action plan charts that outline the steps, timelines, and resources needed to reach career milestones.

Career Evaluation Sheets are utilized to measure the effectiveness of counseling interventions. Clients can use these sheets to track their progress over time, noting improvements in areas such as job satisfaction, skill development, and career progression. This feedback is invaluable for counselors to adjust their strategies and ensure that their interventions are yielding positive results.

Learning Journals are another tool that supports self-reflection on professional development. Clients are encouraged to document their learning experiences, challenges faced, and insights gained. This ongoing record serves as a personal history of their career journey and can be a source of motivation and self-awareness.

These worksheets and activities are examples of the resources that empower clients to take an active role in their career development. By engaging with these tools, clients can gain clarity on their career paths, develop a sense of ownership over their professional growth, and work collaboratively with their counselors to achieve their career aspirations.

5 Policy implications

This section of the study on integrating self-regulation strategies with career counseling underscores the need for comprehensive policy reforms to enhance education and workforce development. It advocates for increased funding for career counseling services, which are vital for individuals to realize their career ambitions. The section calls for policies that encourage employer involvement in training, tailored to meet specific skill demands, and improved data systems to monitor the efficacy of career services, ensuring equitable support across regions. Institutionalizing self-regulation within career services is highlighted as a means to foster employability and career maturity, suggesting the incorporation of self-regulation frameworks into educational programs and the professional development of career counselors. Looking ahead, the section emphasizes the importance of culturally relevant research and policies that address the diverse needs of the workforce and promote lifelong learning and adaptability. Collectively, these measures aim to establish a more dynamic, inclusive, and effective system that empowers individuals to navigate their career paths successfully.

5.1 Policy recommendations for education and workforce development

The Policy Recommendations for Education and Workforce Development subsection is a critical analysis within the context of integrating self-regulation strategies with career counseling. It emphasizes the need for a comprehensive policy framework that supports a holistic approach to education and workforce development.

Firstly, this part advocates for the expansion of funding for career counseling services. Career counseling is pivotal in helping individuals navigate their career paths and achieve long-term goals. However, such services often suffer from underfunding, which can hinder their reach and effectiveness. By increasing financial support, policymakers can ensure that these essential services are accessible to a broader population, thereby enhancing the overall workforce system.

Secondly, the role of employers in providing training is highlighted as a key area for policy intervention. Employers possess firsthand knowledge of the skills required in their respective industries and are thus well-positioned to offer or coordinate relevant training programs. Policies that incentivize employers

to invest in training can bridge the gap between education and the labor market, ensuring that training is directly aligned with employer needs.

Moreover, this subsection underscores the importance of improving data infrastructure. Robust data systems are necessary to track the effectiveness of career services and to make informed decisions about resource allocation. Improved data collection and analysis can lead to more targeted and effective career services, particularly in identifying and addressing the needs of underserved populations, such as those in rural areas.

Lastly, this concept calls for more equitable funding for career services across different regions. Rural areas often face unique challenges in accessing career services, and policies must address these disparities to ensure that all individuals, regardless of their location, have equal opportunities for career development.

5.2 Institutionalizing self-regulation in career services

Institutionalizing self-regulation in career services is a transformative approach that embeds self-regulated learning processes into the core of career development programs. This integration is crucial as it aligns with the findings of recent studies (van der Heijde, 2014; Hsu et al., 2022; Ma and She, 2023) which indicate that metacognitive and motivational aspects of self-regulated learning are significant contributors to young people's perceived employability.

The process begins with the integration of self-regulation frameworks into curriculum design (Sylva et al., 2020; Peters-Burton, 2015). Curricula should be designed to foster self-awareness, goal-setting, strategic planning, and self-reflection. This requires the inclusion of activities that prompt students to evaluate their strengths and weaknesses, establish attainable career objectives, and devise plans to reach these targets. For example, a curriculum might include a module where students create a personal SWOT analysis (Strengths, Weaknesses, Opportunities, and Threats) to identify their competencies and areas for improvement. They could then set SMART career goals based on this analysis. Following this, students might develop a strategic plan outlining the steps they need to take to achieve these goals, such as gaining certain skills or completing internships.

Training career counselors in self-regulation techniques is another critical step. Counselors must be equipped with the skills to teach and model self-regulated learning strategies. They should be able to guide individuals in setting their own learning goals, monitoring their progress, and adjusting their strategies based on feedback and reflection. For instance, a counselor might work with a student who aims to improve their writing skills. The counselor would guide the student in setting specific goals, such as writing a certain number of words daily or submitting articles to a school publication. Together, they would monitor the student's progress, perhaps through a journal or portfolio. If the student receives feedback indicating a need for stronger thesis statements, the counselor will help them adjust their learning plan to include exercises focused on this skill.

Creating environments that encourage reflective practice and continuous learning is also essential. Such environments are cultivated by promoting a culture that prioritizes continual professional development, self-evaluation, and flexibility. Engaging in workshops, seminars, and peer-learning groups is key to fostering a setting conducive to perpetual growth and lifelong education. For example, a company might implement a monthly workshop series focusing on emerging industry technologies. Participants could reflect on their current knowledge, set learning goals, and collaboratively explore new skills. This initiative not only encourages individual growth but also nurtures a workplace ethos of adaptability and ongoing learning.

Policies must be designed to back initiatives that foster professional growth by allocating the required resources and incentives for institutions to embrace such practices. This encompasses financial support for professional development, investment in research to identify best practices, and the creation of standards for career services that emphasize self-regulation as an essential element of employability. For example, a policy could be established that allocates a certain budget for professional development within an organization, ensuring that employees have access to training and development opportunities. This policy might also include provisions for researching effective career service practices and setting industry benchmarks for incorporating self-regulation skills into career development programs. Such a policy would clarify the organization's commitment to supporting employee growth and the importance placed on self-regulation in career advancement.

In sum, institutionalizing self-regulation in career services is a multifaceted endeavor that requires commitment from educational institutions, policymakers, and career counselors. By focusing on metacognitive and motivational self-regulation, career services can significantly enhance the employability of young people, preparing them for a successful transition into the workforce. The integration of self-regulation strategies into career counseling practices not only benefits individuals but also contributes to a more dynamic and competent workforce.

5.3 Future directions for research and policy

The Future Directions for Research and Policy in Career Counseling are pivotal for the evolution of the field (Xu, 2021), particularly in enhancing the cultural relevancy of self-regulation and career counseling theories. It outlines the necessary steps for research and policy development, highlighting the imperative for these processes to be inclusive and flexible to cater to a diverse range of cultural contexts and needs (Hansen, 2016).

Research must delve into the cultural relevancy of self-regulation strategies (Jaramillo et al., 2017). Studies (Mau, 2000; Siti Raba'ah Hamzah and Musa, 2021) have shown that career decision-making styles and self-efficacy are influenced by cultural backgrounds, suggesting that self-regulation strategies may have differential impacts based on cultural contexts. Future research should, therefore, explore how self-regulation strategies can be adapted to the cultural nuances of diverse populations. This

includes understanding the unique challenges and strengths of various cultural groups and tailoring interventions to be culturally sensitive and effective.

The long-term impact of self-regulation strategies on career success is another critical area for investigation. While self-regulation is known to contribute to young people's perceived employability (van der Heijde, 2014), there is a need to examine its influence throughout an individual's career. Research should assess how self-regulation strategies affect career advancement, job satisfaction, and overall life satisfaction. This will provide valuable insights into the enduring benefits of self-regulation and inform the development of long-term career support services.

Policy development should focus on creating frameworks that support lifelong learning and adaptability in the workforce. Lifelong learning is essential in a rapidly changing work environment (Evans et al., 2023), and policies must ensure that individuals have opportunities to continuously develop their skills. This includes promoting access to ongoing education and training, fostering a culture of learning in the workplace, and ensuring that learning opportunities are equitable and accessible to all members of society.

Finally, the future of career counseling lies in research and policy that embrace cultural diversity, investigate the sustained impact of self-regulation, and promote lifelong learning. By pursuing these directions, career counseling can become more effective, inclusive, and responsive to the needs of a dynamic global workforce. These efforts will not only empower individuals in their career pathways but also contribute to a more adaptable and skilled workforce, ready to meet the challenges of the future.

6 Conclusion

The Conclusion of this research encapsulates the significant contributions of integrating self-regulation strategies with career counseling practices. The study has systematically articulated the rationale behind this integration, setting forth a compelling case for its necessity in modern career development. It has established a theoretical framework that interweaves self-regulation with the evolving role of career counseling, highlighting the synergy between these domains.

The practical applications section has been particularly instrumental, introducing self-regulation techniques that can be directly applied to career advancement. These techniques, coupled with innovative career counseling interventions and enriched by illustrative case studies, form a robust approach to career development. The resource manual compiled as a result of this study stands as a testament to the practicality of the guide's recommendations, offering an array of tools, assessments, and activities for clients, as well as invaluable resources for career counselors.

Reflecting on the integration of self-regulation and career counseling, it is evident that this approach offers a dynamic pathway for individuals to navigate their careers. The guide's contributions extend beyond immediate career advancement, advocating for a paradigm shift in how career development is

perceived and approached. It underscores the importance of self-regulation as a foundational skill that empowers individuals to take charge of their career trajectories, fostering a sense of autonomy and purpose.

The policy implications discussed in the study provide a blueprint for education and workforce development reforms. They call for the institutionalization of self-regulation in career services, ensuring that these practices are ingrained within educational and professional development programs. The future directions for research and policy underscore the need for ongoing exploration into the cultural applicability of these strategies and the development of frameworks that support lifelong learning and adaptability.

In sum, the integration of self-regulation strategies with career counseling practices presents a novel and comprehensive approach to career development. It is a forward-thinking guide that resonates with the needs of educators and learners, offering a pathway to not only professional success but also personal satisfaction. The study's contributions lay the groundwork for future research and policy-making, ultimately aiming to empower individuals to craft fulfilling career pathways in an ever-changing global workforce.

Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

Author contributions

MR: Conceptualization, Funding acquisition, Writing – review & editing. HK: Conceptualization, Writing – original draft, Writing – review & editing.

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Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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