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Artificial Intelligence as a Simulated Client in Psychological Counseling Education: The PsyClient AI System

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Abstract

This study aims to propose a holistic model, PsyClient AI, in which artificial intelligence serves as a client to support experiential learning in psychological counseling education. Grounded in Kolb's Experiential Learning Theory, the model positions artificial intelligence not as a passive source of information, but as a dynamic learning component that interacts with prospective psychological counselors. PsyClient AI consists of three core components: the AI client, the interaction loop, and the feedback loop. Structurally, the model operates through a hierarchical and cyclical architecture in which the AI client simulates the counseling process, the interaction loop sustains reciprocal therapeutic communication, and the feedback loop dynamically evaluates student interventions to provide personalized developmental guidance. The AI client provides a multidimensional representation of a client, incorporating emotional, cognitive, and behavioral characteristics based on structured case formulations. The interaction loop creates a continuous and reciprocal learning process through the AI's responses to students' interventions. The feedback loop, meanwhile, provides real-time and personalized feedback by analyzing students' micro-skills. Technological components, including natural language processing, scenario management, and learning analytics, further support the model. In this regard, PsyClient AI enables aspiring psychological counselors to develop their empathy, active listening, and intervention skills in a safe and reproducible environment. In conclusion, the model is evaluated as offering an innovative approach that strengthens practice-based and experiential learning in psychological counseling education and establishes a robust theoretical foundation for AI-supported educational systems.

Keywords:

PsyClient AI, psychological counseling, experiential learning, artificial intelligence, model, client

1. Introduction

Artificial intelligence (AI) has emerged as one of the most significant technological advancements in recent years, driving profound transformations across education and mental health. First introduced by John McCarthy in 1956, the concept of artificial intelligence now refers to software and hardware systems capable of mimicking human-like cognitive processes (Buchanan, 2005; Nilsson, 2014). Thanks to its capacity to perform complex tasks, artificial intelligence enables the development of personalized learning experiences within educational systems (Hall & Pesenti, 2017). Indeed, adaptive learning systems can analyze students' performance to provide feedback tailored to individual needs and make learning processes more effective (Heffernan & Heffernan, 2014). In this context, artificial intelligence is viewed not merely as a technological innovation but also as a pedagogical tool that reshapes learning processes. In addition to learning processes, the use of artificial intelligence in mental health is rapidly expanding, particularly in response to global challenges such as the growing need for psychological support and a shortage of specialists (Söner, 2024). The rising rates of depression and anxiety worldwide, coupled with a shortage of mental health professionals, have increased the need for digital solutions (Söner, 2026). In this context, digital psychotherapy and AI-supported interventions have become important tools for increasing the accessibility of psychological services (Andersson et al., 2019; Torous et al., 2021). Artificial intelligence systems can analyze individuals' emotional and cognitive states to provide personalized feedback and support therapeutic processes (Luxton, June, & Kinn, 2011). Additionally, services delivered through online platforms and mobile applications eliminate time and location constraints, enabling broader reach (Balcombe & De Leo, 2021). These developments demonstrate that artificial intelligence plays not only a supportive but also a transformative role in mental health.

However, the vast majority of existing AI applications are designed as systems that assume the role of a psychological counselor (therapist) in counseling processes (Söner, 2025b). AI-based systems in the literature generally operate as digital therapists that provide recommendations, guide, and intervene with the user (Andersson et al., 2019; Luxton et al., 2011). In particular, cognitive-behavioral therapy-based applications can be easily integrated into AI systems due to their structured and protocolizable nature (Beck, 2019; Hoffmann et al., 2023; Söner, 2026). These systems can analyze users' emotional states to identify automatic thoughts and provide appropriate cognitive restructuring suggestions. Consequently, in the current literature, artificial intelligence is primarily positioned as an actively intervening therapist. This situation indicates that artificial intelligence is viewed as a tool that provides greater support in psychological counseling processes. However, when evaluated within the context of psychological counseling education, it becomes evident that current artificial intelligence applications have significant limitations. It is well known that aspiring psychological counselors require not only theoretical knowledge but also experiential learning to develop their professional skills. In contrast, current AI systems fall short in providing interactive learning environments where aspiring counselors can actively develop their skills (Söner, 2025b). However, it has been demonstrated that AI-supported client simulations in educational programs increase psychological counselors' self-efficacy and enhance their practical skills (Söner, 2025a). These findings reveal that AI can be utilized not merely as a tool serving clients but also as a system that provides an active learning environment within educational processes. Moreover, the COVID-19 pandemic accelerated the integration of digital technologies into both higher education and mental health services, increasing the need for remote, flexible, and technology-supported training environments (Dhawan, 2020; Torous et al., 2021). In parallel, the growing emphasis on digital competencies in counselor education has highlighted the importance of innovative experiential learning models that can be implemented independent of time and place constraints. These developments have further strengthened the need for AI-supported educational systems capable of providing scalable and interactive counseling training experiences. At this point, a significant gap in the literature is noteworthy: the lack of models in which artificial intelligence is structured to play the client role rather than the psychological counselor role and supports experiential learning. This study aims to address this gap by reconceptualizing the role of artificial intelligence in psychological counseling education.

2. Artificial Intelligence in Psychological Counseling Education

One of the fundamental functions of the education system is to enable students to fully realize their potential in educational, vocational, personal, and social domains, and to provide the necessary opportunities and resources to that end (Fidan, 2012). Psychological counseling and guidance services, which directly contribute to this goal, constitute an indispensable building block that supports the individual's holistic development and is regarded as an integral component of the educational process (Gysbers & Henderson, 2012; Yeşilyaprak, 2016). Psychological counseling and guidance services are defined as structured professional assistance processes aimed at meeting individuals' developmental needs, enhancing their ability to cope with life's challenges, and supporting effective decision-making processes (Corey, 2017; Gysbers & Henderson, 2012; Schmidt, 2014). These services include multidimensional practices that specifically support students' holistic development in school settings (Uzun & Durgut, 2025). School-based psychological counseling and guidance services are viewed as comprehensive programs aimed at supporting students' social, emotional, and academic development through individual and group interventions designed to fulfill preventive, developmental, and remedial functions, while also strengthening their educational and career development through assessment processes (Lapan, Gysbers, &

Petroski, 2001). As part of school-wide guidance activities, awareness campaigns are organized on issues such as bullying, technology addiction, and test anxiety, thereby increasing students' awareness levels (Sayan, 2001). Additionally, school counselors collaborate with teachers, parents, and school administrators to provide consultation on environmental factors that influence student development. In this process, a holistic understanding of the student serves as the foundation for effective teaching and counseling services (Aktepe, 2005). However, the digital transformation currently taking place in education systems is leading to significant changes in how these services are delivered. Digitalization is the process of converting information from analog to digital form, enabling data to be processed, stored, and shared more quickly in digital environments (Özçelik Baloglu, 2023; Turkyilmaz, 2024). Storing digitized content on digital platforms offers significant advantages in terms of access and reuse (Ünal, 2019). This transformation not only simplifies information management processes but also enhances the flexibility and accessibility of educational and counseling services (Karakas et al., 2009). In this context, artificial intelligence technologies emerge as one of the most important components of the digital transformation and bring a new dimension to psychological counseling.

In light of the opportunities offered by digital transformation, integrating AI-based applications into psychological counseling education is becoming increasingly important. Artificial intelligence, defined as systems capable of mimicking human-like cognitive functions, can perform complex processes such as data processing, decision-making, problem-solving, and effective communication (Söner, 2025c). Thanks to these characteristics, artificial intelligence offers significant contributions in areas such as individual assessment, data analysis, and the creation of decision-support mechanisms within counseling services. Indeed, studies examining the perceptions of psychological counselors and counseling students regarding artificial intelligence indicate that this technology is viewed as a functional and supportive tool, particularly in areas such as assessment, student profiling, and career counseling (Gonzalez & McCalla, 2025; Sarmurzin, 2026; Söner, 2025a). However, the same studies also reveal that artificial intelligence has certain limitations in counseling processes. In particular, disadvantages such as the risk of misjudgment, the potential to limit creative thinking processes, and the inability to fully replace human interaction lead psychological counselors to approach AI-based applications with caution (Holmes et al., 2019; Luxton et al., 2011). Additionally, the fact that a significant portion of psychological counselors lack sufficient knowledge and training infrastructure for the use of AI-based applications is a major obstacle to the effective and efficient use of these technologies (Holmes et al., 2019; Söner, 2025c). While role-playing and case-based learning approaches, which are widely used in psychological counseling education, make significant contributions to developing students' professional skills, the fact that these methods primarily rely on limited and structured interactions prevents them from adequately reflecting the dynamic and contextual nature of real client behavior; which in turn may limit students' preparedness for real counseling processes (Bennett-Levy et al., 2009; Hill & Lent, 2006). At this point, AI-powered simulation systems have the potential to offer a significant alternative. However, the majority of current AI applications focus on the role of the psychological counselor and do not sufficiently incorporate client simulations that allow students to gain experience actively. This situation results in limited experiential learning processes in psychological counseling education. In contrast, AI-based systems have the potential to provide students with realistic, repeatable learning experiences, offering a critical advantage in developing professional skills. In this context, artificial intelligence must be reimagined not merely as a tool for delivering information, but as an educational technology that provides interactive, experiential learning environments. Such a transformation will contribute to the development of more effective, sustainable, and scalable learning models in psychological counseling education.

3. Artificial Intelligence: Therapist or Client?

A review of the literature on the use of artificial intelligence technologies in psychological counseling and mental health reveals that these systems are primarily designed to serve as psychological counselors (therapists). In this approach, artificial intelligence is positioned as a tool that analyzes an individual's emotional state, guides problem-solving processes, and offers various intervention recommendations (Arslan, 2020; Ünsal, 2024). The ability of artificial intelligence systems to perform cognitive processes, such as perceiving environmental data, learning, making inferences, and decision-making, enables their use as psychological counselors (Arslan, 2020). Furthermore, as the digital transformation accelerates, AI-based systems are increasingly taking on functions such as identifying individuals, conducting data analysis, and providing decision-support mechanisms in counseling services (Adaş & Erbay, 2022; Özdem, 2022). In this context, artificial intelligence is being used as an active intervention tool in psychological counseling processes and provides users with guiding feedback. Indeed, research in psychological counseling has shown that artificial intelligence plays a supportive role, particularly in assessment, client profiling, and career counseling (Muhammad et al., 2024; Thakare et al., 2025). This indicates that, in its current applications, artificial intelligence is primarily seen as a service-delivery model for psychological counseling.

However, the use of artificial intelligence in a therapeutic role also presents certain limitations from the perspective of psychological counseling training. Psychological counseling is not merely a process of information transfer; it is an interaction-based professional field that requires the development of micro-skills such as empathy, active listening, reflection, and asking appropriate questions (Schmidt, 2014; Voltan Acar, 2017; Yeşilyaprak, 2016). These skills are largely acquired through experiential learning processes and developed in real

or near-real interaction environments. However, in current artificial intelligence systems, the user is often in a passive role and remains within a structure that follows the system's recommendations. This situation limits counseling psychology students' opportunities to engage in active practice and learn from mistakes (Söner & Dündar, 2026). Additionally, it is noted that artificial intelligence cannot fully replace human interaction and may remain limited in areas such as emotional depth and empathy (Uzun et al., 2025). In this context, while the use of artificial intelligence as a therapist may offer advantages in service delivery, it falls short of adequately addressing the experiential learning dimension required in educational processes.

In this context, the use of artificial intelligence in the role of a simulated client emerges as a significant alternative framework. Rather than positioning AI as a system that directly guides the user, this approach conceptualizes artificial intelligence as an interactive “AI client” capable of generating dynamic emotional, cognitive, and behavioral responses based on structured psychological profiles. Such a structure has the potential to create an experiential learning environment in which counseling trainees actively participate in counseling simulations and develop professional competencies through practice-based interactions. Given that experiential learning constitutes one of the core foundations of psychological counseling education, students are more likely to develop counseling competencies effectively through active engagement and reflective practice than through theoretical instruction alone (Fidan, 2012). Accordingly, positioning artificial intelligence in the client role offers a more participatory, practice-oriented, and learner-centered educational model.

The proposed PsyClient AI model operationalizes this approach through a cyclical and interaction-based architecture composed of three interconnected components: the AI client, the interaction loop, and the feedback loop. Within this structure, student interventions constitute the primary input of the system. The AI client component processes these interventions and generates context-sensitive responses by integrating emotional reactions, resistance levels, communication styles, prior experiences, and interaction histories. Subsequently, the interaction loop continuously monitors the reciprocity, continuity, and progression of the counseling dialogue. The feedback loop then evaluates students' counseling microskills—including empathy, reflection, questioning strategies, active listening, and intervention appropriateness—and produces personalized developmental feedback. Based on this feedback, students revise their interventions and re-engage in the counseling simulation process, thereby creating a continuous experiential learning cycle.

The cyclical architecture of the PsyClient AI model may be conceptualized as follows:

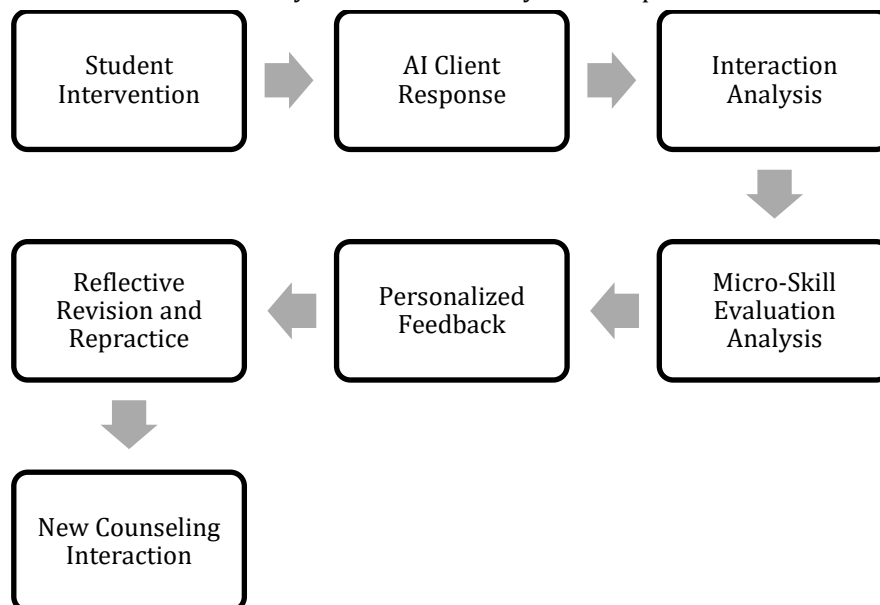


Figure 1 . The cyclical architecture of the PsyClient AI model

When examining the differences between artificial intelligence as a therapist and as a client, it becomes evident that these two approaches diverge significantly in both purpose and mode of use. While AI systems in the therapist role aim to provide direct support to the user, systems in the client role position the user (the prospective psychological counselor) as an active practitioner. In this context, AI structured in the client role offers an approach that centers the learning process and makes the user an active participant. The fundamental differences between these two approaches are summarized below:

Table 1.

Comparison of Artificial Intelligence in Therapist and Client Roles

Dimension	Artificial Intelligence (Therapist Role)	Artificial Intelligence (Client Role)
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Primary Objective	Providing psychological support	Supporting counselor training and skill development
Pedagogical Orientation	Service and guidance-focused	Experiential learning-focused
User Position	Passive recipient	Active practitioner
Interaction Dynamics	Recommendation and guidance-based	Reciprocal and adaptive simulation-based
Learning Structure	Information-oriented	Practice-oriented and reflective
Feedback Mechanism	General system feedback	Performance-based personalized feedback
Skill Development	Limited experiential contribution	Microskill and intervention development
Educational Function	Mental health support	Counseling training environment
Adaptability	Limited contextual flexibility	Dynamic scenario generation
Evaluation Focus	User support outcomes	Counseling competency development

Table 1 demonstrates that artificial intelligence systems configured in therapist and client roles differ substantially in terms of pedagogical orientation, interaction dynamics, learner positioning, and educational objectives. While AI systems in the therapist role primarily focus on providing psychological support through guidance-oriented and information-based interactions, AI systems in the client role emphasize experiential learning and active participation. In this framework, users remain relatively passive recipients in therapist-oriented systems, whereas prospective counselors assume an active practitioner role within client-oriented simulation environments. Similarly, the feedback mechanisms of the two approaches differ considerably; therapist-role systems generally provide standardized system feedback, whereas client-role systems offer performance-based and personalized feedback aimed at developing counseling competencies and microskills. The comparison further indicates that AI systems structured as clients provide greater contextual adaptability through dynamic scenario generation and create practice-oriented learning environments that more closely resemble authentic counseling interactions. Overall, the findings presented in the table suggest that positioning artificial intelligence in the client role may offer a more suitable framework for supporting experiential learning and professional skill development in psychological counseling education.

4. Theoretical Gap

Psychological counseling education is inherently grounded in experiential learning processes that require active student participation rather than the mere transmission of theoretical knowledge. According to experiential learning theory, individuals develop knowledge and skills through a cyclical process involving direct experience, reflection, conceptualization, and application (Kolb, 1984). Accordingly, psychological counseling education requires students not only to acquire theoretical competencies but also to apply these competencies within interactive and practice-oriented settings. Experiential learning has therefore been recognized as a fundamental pedagogical approach that contributes significantly to professional identity development, self-efficacy, and counseling skill acquisition (Babb & Campbell, 2025). Nevertheless, current educational models often fail to provide sufficiently structured and sustainable experiential learning opportunities. In particular, the limited availability of practicum courses, internships, and supervision processes in terms of time and resources restricts students' opportunities to gain adequate practical experience. As a result, many prospective psychological counselors may enter professional practice without sufficient preparation for real counseling interactions. Consequently, despite the well-established importance of experiential learning in the literature, the lack of scalable and sustainable models capable of effectively supporting this process remains a significant theoretical and practical gap.

These limitations of experiential learning become particularly evident in the traditional methods commonly used in psychological counseling education. Role-playing, case analysis, and observation-based exercises may provide students with partial experiential opportunities; however, they often fail to capture the complexity, unpredictability, and emotional depth of real counseling processes. Although previous studies have shown that role-playing activities can improve empathy and communication skills, such methods generally provide limited feedback and lack opportunities for real-time evaluation (Karayigit et al., 2023). Similarly, active learning approaches have been found to be more effective than passive teaching methods in developing counseling competencies (Caron et al., 2022). Despite these findings, many existing educational practices continue to rely heavily on theoretical instruction and remain insufficient in promoting sustained student engagement and practical skill development. This limitation becomes particularly critical in situations requiring direct client

interaction, as counseling trainees often have limited opportunities to practice safely before working with actual clients. Consequently, the absence of structured, practice-oriented, and psychologically safe learning environments constitutes a significant gap in the professional development of prospective psychological counselors.

From an ethical perspective, this limitation is particularly critical because counseling trainees often experience anxiety and fear of making mistakes when interacting with real clients for the first time. Within experiential learning frameworks, the provision of psychologically safe practice environments plays a crucial role in skill acquisition and professional confidence development. AI-supported client simulations may offer an important ethical advantage by allowing trainees to make mistakes, test interventions, and develop counseling competencies without the risk of causing psychological harm to an actual client. In this respect, artificial intelligence-based simulation environments can function as “safe spaces” that support both experiential learning and ethical professional development. In addition, ethical considerations such as data privacy, the secure storage of interaction records, algorithmic bias, cultural sensitivity, and the accuracy of AI-generated feedback should be carefully addressed in the development of such systems. Since counseling training involves emotionally and professionally sensitive interactions, AI-supported simulation environments must operate in accordance with professional counseling ethics and should be continuously monitored through human supervision mechanisms. Accordingly, these systems should be conceptualized not as replacements for authentic counseling experiences, but as supportive and preparatory learning environments that complement traditional supervision and real client interaction processes.

Micro-skills training, another fundamental component of psychological counseling education, also involves important theoretical and practical limitations. Microskills—including empathy, active listening, reflection, summarization, and effective questioning—constitute the core competencies that shape the counseling process (Egan, 2014; Corey, 2017; Ivey et al., 2018). The effective acquisition of these skills plays a critical role in determining the quality and success of counseling interventions. Nevertheless, previous studies indicate that many counseling trainees and professionals do not receive sufficiently structured training in microskills, which may negatively affect professional competence and counseling effectiveness (Saputro & Wangid, 2022). The literature further emphasizes that the development of microskills requires continuous practice, repetition, step-by-step learning, and systematic feedback processes (Inskip, 1996). However, current educational models often lack sustainable structures that support the continuous and systematic development of these competencies. In particular, feedback processes that depend primarily on supervisors may restrict students’ access to immediate and ongoing feedback opportunities. As a result, inconsistencies may emerge in students’ skill development processes, highlighting the need for innovative learning environments and technology-supported approaches that can strengthen microskill training in psychological counseling education.

In recent years, the integration of artificial intelligence-based systems into educational processes has emerged as a promising approach for addressing the theoretical and practical limitations of experiential learning and micro-skill training in psychological counseling education. AI-supported simulation systems can enhance experiential learning by enabling students to engage in realistic, repeatable, and interactive counseling experiences. Unlike traditional role-playing exercises, which are generally based on static and limited scenarios, AI-based systems can dynamically model client behaviors by simultaneously processing emotional reactions, resistance levels, prior experiences, and real-time interaction patterns. This enables counseling trainees not only to practice specific counseling techniques but also to develop competencies related to adapting to changing client responses, making real-time decisions, and managing the counseling process more effectively. Recent studies have demonstrated that AI-supported simulation environments contribute significantly to the development of counseling candidates’ communication competencies and micro-skills (Shorey et al., 2019; Shorey et al., 2023; Yıldırım Algül, 2025; Zambrano-Serrano et al., 2025). Nevertheless, many existing AI applications remain primarily psychoeducation-oriented and fail to provide sufficiently interactive and learner-centered environments that support active participation (Fitzpatrick et al., 2017; Hoffman et al., 2023; Sabour et al., 2023; Söner & Dündar, 2026). In this respect, the proposed model differentiates itself from existing approaches through its interactive feedback loops, contextual data processing mechanisms, and adaptive scenario generation capabilities. Accordingly, the model aims to provide a more comprehensive experiential learning environment in which prospective counselors actively participate in the counseling process, receive continuous feedback, and engage in learning experiences that more closely reflect real counseling interactions.

In conclusion, the literature reveals important theoretical and practical limitations regarding both experiential learning and micro-skill training in psychological counseling education. Although practice-based learning is widely recognized as a fundamental component of counselor training, existing educational models often remain insufficient in providing systematic, continuous, and feedback-oriented learning environments. While artificial intelligence technologies offer substantial potential to address these limitations, many current applications fail to support active participation and experiential skill development adequately. Therefore, there is a growing need for innovative approaches that position artificial intelligence not only as a therapeutic assistant or counselor, but also as a simulated client capable of supporting experiential learning and microskill development.

In this context, the present study seeks to address this gap by proposing a new conceptual framework that reconceptualizes the role of artificial intelligence in psychological counseling education.

5. Proposed Conceptual Model- PsyClient AI

Within the scope of this study, a holistic, multi-layered conceptual model is proposed in which artificial intelligence serves as a client, aiming to systematically and sustainably support experiential learning processes in psychological counseling education. Dubbed PsyClient AI, this model treats artificial intelligence not merely as a passive tool that provides information or offers guidance, but as a dynamic component that actively participates in the learning process, adapts to user inputs, and shapes learning through interaction. The model's primary objective is to create a repeatable, structured, safe, and interaction-based learning ecosystem where aspiring psychological counselors can develop their professional skills. This approach is grounded in the assumption that psychological counseling skills develop not solely through theoretical knowledge but also through direct experience, practice, and reflection. Indeed, it is well established that effective learning in psychological counseling education is made possible through the integration of active participation, realistic case experience, immediate feedback, and reflective evaluation processes. However, in current educational practices, these elements are often limited, particularly as ethical, logistical, and structural factors constrain opportunities to work with real clients. The PsyClient AI model steps in precisely at this point, aiming to provide a simulation environment where students can interact with different client profiles in a systematic, controlled, and reproducible manner (Söner, 2025b).

The proposed model differs significantly from the AI-based applications that are becoming increasingly prevalent in the literature. While most existing studies position AI as a therapist, the PsyClient AI model offers a different perspective on the training process by configuring AI as a client. In this regard, the model not only introduces a technological innovation but also proposes a theoretical reframing of the nature of psychological counseling education. Within this framework, artificial intelligence is positioned as an "interaction partner," situated opposite the learner and responding to their interventions. The "AI client" structure at the core of the model refers to the configuration of artificial intelligence that represents a client with specific psychological characteristics. This structure ensures that artificial intelligence goes beyond mere text generation, providing a multidimensional representation of a client that incorporates emotional, cognitive, and behavioral components. Fictional client profiles are created using the structured case formulation approach; within this framework, the client's symptom patterns, cognitive processes, emotional responses, and behavioral patterns are defined in the system. Thanks to this structure, each fictional client transcends the role of a static character and becomes a context-sensitive, variable, and dynamic interaction partner. This feature enables counseling students to gain experience working with different client typologies while also simulating the uncertainty, variability, and contextual nature inherent in the counseling process. Through this system, students can practice not only with a specific case but also with various scenarios and different client profiles. In this way, they expand their intervention repertoires and enhance their professional flexibility. Additionally, this structure provides a safe learning environment that allows students to learn from their mistakes and develop their skills before working with real clients (Söner, 2025b).

The "interaction loop," the model's second core component, refers to the continuous, reciprocal, and dynamic interaction process between the aspiring psychological counselor and the AI client. This loop begins with the student's response, continues with the AI client's reply, and repeats the process. This structure transforms the learning process from a linear knowledge-transfer model into a cyclical, flexible, and developmental one. Throughout the interaction, user inputs are evaluated using natural language processing and contextual analysis techniques, and integrated with parameters from the client's profile and scenario information to generate appropriate responses. In this process, the system does not merely generate a response to the given input; it also tracks the conversation context to produce responses that are consistent with and meaningful in relation to previous interactions. This ensures that students experience a process similar to a real counseling session. One of the most significant benefits of the interaction cycle is that students can observe the results of their interventions in real time. This allows students to evaluate the effects of their intervention strategies, develop alternative approaches, and shape their own counseling styles. Thus, the learning process transforms from passive knowledge acquisition into an active process of experience and reflection (Söner, 2025b).

The "feedback cycle," the third and complementary component of the model, represents the evaluation and improvement aspects of the learning process. This component involves systematically analyzing the student's interactions and integrating these analyses into the learning process. The system evaluates user inputs using fundamental psychological counseling skills—such as empathy level, active listening, reflection capacity, and the ability to ask appropriate questions—and provides structured feedback accordingly. This feedback not only helps students identify their mistakes but also enables them to recognize their strengths and reinforce their effective interventions. One of the most important features of the feedback loop is its immediacy and personalization. This ensures that the learning process is tailored to individual needs and helps students gain awareness of their own development. Additionally, the system's ability to record interaction data enables tracking students' performance over time and systematic evaluation of their progress. In this regard, the model functions not only as a simulation environment but also as a data-driven learning analytics system (Söner, 2025b).

Another key aspect of the PsyClient AI model is its integrated system architecture, supported by an advanced technological infrastructure. The system consists of multi-layered components, including the user interface, central processing unit, AI processing layer, client profile management, scenario management, database, and analysis modules. Thanks to this structure, interactions between the user and the system go beyond the text level; they are supported by audio and visual outputs, providing a more realistic experience. In particular, components such as text-to-speech conversion, visual representation, and facial expression generation make interactions with the AI client more natural and engaging. Additionally, the system offers a dynamic structure that processes user inputs, consultant profile parameters, and scenario flow data together; as a result, each interaction is shaped specifically to the context. The system also continuously improves its performance by analyzing user interactions, generating more consistent, accurate, and context-appropriate responses. This demonstrates that the model is not merely a static learning tool but a continuously evolving and adaptive learning system (Söner, 2025b).

In conclusion, the PsyClient AI conceptual model offers a holistic learning framework that supports experiential learning by integrating AI-powered components for client interaction and feedback cycles. The model strengthens practice-based learning in psychological counseling education and provides students with a safe, reproducible learning environment. At the same time, it personalizes the learning process through data-driven feedback mechanisms and contributes to the systematic development of professional skills. In this regard, the PsyClient AI model has the potential to go beyond merely serving as a tool that supports existing educational approaches, establishing a strong theoretical and practical foundation for AI-supported psychological counseling education (Söner, 2025b).

6. Implications of the PsyClient Model

The proposed AI-based psychological counseling model offers multifaceted implications for psychological counseling education. First, in the context of psychological counseling education, one of the model's most significant contributions is its potential to structure experiential learning processes systematically and sustainably. The limited opportunities for practical application in traditional psychological counseling education can prevent students from adequately developing their professional skills. In this context, AI-based learning environments that use client simulations can enhance educational processes by enabling students to practice in a repeatable, safe setting. In particular, the opportunity to interact with diverse client profiles can enhance students' abilities in flexible thinking, developing appropriate interventions, and adapting to different situations. This supports a shift in psychological counseling education from knowledge-transfer-based approaches to practice-based, interaction-focused learning models.

In terms of supervision training processes, the model can be considered an important complementary tool. In traditional supervision practices, feedback is largely based on the supervisor's observations and a limited number of sessions. This situation can limit students' opportunities to receive continuous and immediate feedback. The proposed model can enable students to evaluate their performance more systematically through feedback mechanisms integrated into interaction-based learning processes. This approach can transform supervision processes from being solely evaluation-focused to a development-focused structure. Additionally, providing a learning environment that supports students' processes of making mistakes, recognizing them, and correcting them can enhance the effectiveness of supervision. In this context, the model is viewed not as a replacement for supervision processes, but as a structure that supports and enriches them.

From the perspective of digital education, one of the most significant contributions of the proposed model is its potential to make psychological counseling education independent of time and place. The shift of educational environments to online platforms, driven by the digital transformation, has made learning more accessible and flexible. In this context, AI-based simulation systems can facilitate the more effective delivery of psychological counseling education in digital environments. Advantages such as the ability to reach large student groups, provide personalized learning experiences, and ensure continuous accessibility further underscore the importance of this model in the digital education context. Additionally, such systems can support equity and inclusivity in education by providing adaptable learning environments for students with varying learning paces. In this regard, the model is regarded as an innovative approach that can be integrated into the digital education ecosystem.

Nevertheless, despite its potential contributions, the proposed model also has important limitations that should be acknowledged. One of the primary limitations concerns the difficulty of fully simulating the depth, complexity, and spontaneity of human emotions within AI-based interaction processes. Although artificial intelligence systems can generate context-sensitive emotional responses, they may still fall short in reflecting the nuanced and multilayered nature of real human experiences. Furthermore, ethical risks related to inaccurate feedback generation, cultural misrepresentation, and algorithmic bias should also be considered when integrating AI-supported systems into counselor education processes. Therefore, AI-based simulations should not be considered a complete substitute for real client interactions but rather as complementary educational tools that support skill development in the early stages of counselor training. In this context, future studies may benefit from developing hybrid training models that combine human supervisors with AI-supported client simulations. Such hybrid structures may provide a more balanced learning environment by integrating the scalability and

repeatability advantages of artificial intelligence with the emotional depth, ethical sensitivity, and professional insight offered by human supervision.

In addition, the present study is limited by its conceptual nature, as the proposed model has not yet been empirically tested in real educational settings. Therefore, the effectiveness, usability, and educational impact of the PsyClient AI system remain theoretical assumptions that require systematic empirical validation. Furthermore, technological limitations, institutional infrastructure differences, students' digital competencies, and resistance to AI-supported educational systems may influence the applicability of the model across different contexts. It is also possible that AI-supported simulations may be less effective in addressing highly complex emotional processes, multicultural counseling dynamics, or unpredictable therapeutic interactions that require advanced human sensitivity and relational depth. Accordingly, the proposed model should be interpreted as a preliminary conceptual framework rather than a fully validated educational system.

7. Future Research on AI-Based Psychological Counseling Systems

The conceptual model proposed in this study not only provides an important framework for alternative uses of artificial intelligence in psychological counseling education but also identifies various directions for future research. First and foremost, empirically testing this model is crucial for systematically examining its impact on the professional skills of prospective psychological counselors. In particular, examining the model's impact on variables such as experiential learning, self-efficacy, micro-skill development, and professional competence through experimental and quasi-experimental research designs will yield more concrete findings regarding the model's validity and effectiveness. Additionally, evaluating the model's applicability across different educational levels (undergraduate, graduate, and in-service training) will enhance the generalizability of this approach.

Another key focus for future research is the ethical and professional dimensions of AI-based learning environments. Since psychological counseling is a profession based on human interaction, establishing ethical boundaries in the use of AI-supported systems is of great importance. In this context, research should investigate the impact of AI-mediated interactions on students' professional identity development, their levels of ethical awareness, and how these interactions influence their perceptions of the psychological counseling process. Additionally, establishing ethical standards regarding data security, privacy, and the use of AI systems is a critical issue for the sustainability of applications in this field. Future research should also examine issues such as algorithmic bias, transparency of AI decision-making processes, cultural responsiveness, and the potential risks associated with inaccurate or misleading feedback generation. In addition, investigating how AI-supported systems can remain aligned with professional counseling ethics while preserving the central role of human supervision represents an important area for future inquiry. Since counseling is fundamentally based on human interaction and relational depth, future studies should further explore how AI-supported simulation environments can complement rather than replace authentic counseling experiences. Furthermore, integrating AI-based client simulations with various psychological counseling approaches is an important area of research. It is possible to examine how different theoretical approaches (such as cognitive-behavioral, solution-focused, humanistic, and psychodynamic) can be represented in such simulation environments and the impact this has on learning outcomes. Additionally, how cultural differences can be reflected in client simulations and how these systems can be used across different cultural contexts are important topics that require further research.

Finally, the conceptual model proposed in this study provides a framework that could serve as a foundation for future artificial intelligence-based educational systems. In this context, it is expected that future research will transform this model into more comprehensive applications and test it in various educational settings. However, given that intellectual property rights may protect the technical and structural details of such systems, the present study provides only a conceptual framework and excludes detailed technical structures. This approach offers a balanced perspective that considers both academic contribution and the protection of innovative systems.

8. Declarations

All articles must include a "Declaration" section with the following headings. Under this heading, the points that authors should pay attention to are stated.

Ethics Approval and Consent to Participation. This study is a review article and does not involve human participants or animal subjects. Therefore, ethical approval from an institutional review board was not required. Accordingly, informed consent was not applicable.

Approval for Publication. Not applicable.

Availability of Data and Materials. No datasets were generated or analyzed during the current study.

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Problems and Proposed Solutions in the Social Integration of Syrians Under Temporary Protection: Perspectives of Public and Civil Society Organizations (CSOs)

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Abstract

The mass displacement triggered by the Syrian civil war since 2011 has positioned Türkiye as a primary host country, intensifying the urgency of sustainable social integration policies. This study critically examines the institutional and operational roles of the Directorate of Migration Management and Civil Society Organizations (CSOs) in shaping the social cohesion of Syrians under temporary protection, with a particular focus on systemic challenges and context-sensitive solutions. Adopting a qualitative research design, data were collected through semi-structured interviews with 10 key informants, including public officials and CSOs practitioners in Hatay, and analyzed using an inductive content analysis approach. Findings reveal a strong consensus that long-term settlement rather than return has become the dominant trajectory for Syrian asylum seekers, underscoring the necessity of durable integration frameworks. Participants identified a wide spectrum of interventions—ranging from language acquisition and vocational training to psychosocial support and community-based engagement—indicating a multi-layered integration ecosystem. Importantly, CSOs emerged as pivotal intermediary actors that enhance institutional accessibility, foster trust, and compensate for structural limitations within public services. Despite these contributions, integration processes remain constrained by intersecting structural and socio-cultural barriers, including linguistic exclusion, economic precarity, cultural dissonance, educational inequalities, media-driven perceptions, and limited legal literacy. The study advances the literature by demonstrating that integration is not merely a service delivery issue but a complex, relational process requiring coordinated, locally adaptive, and multi-actor governance models. By foregrounding field-based insights, this research contributes to migration and integration scholarship through its emphasis on institutional interplay and grounded policy implications. It offers evidence-based recommendations for strengthening collaborative governance, enhancing targeted interventions, and designing more inclusive integration strategies responsive to both migrant and host community dynamics.

Keywords: Immigration, social integration, temporary protection status, hatay, civil society organization, directorate of migration management.

1. Introduction

Migration has been a fundamental phenomenon since the dawn of humanity and has shaped cultures, societies, and geographies throughout history (Çağlar, 2018). Migration is defined as the movement of people across an international border or within a state, regardless of its duration, structure, or reason (International Organization for Migration [IOM], 2009). In general, migration is considered a universal phenomenon arising from the movement of individuals from one place to another for economic, social, political, or cultural reasons (Erder, 1986; Koçak & Terzi, 2012). It is also defined as physical and geographical separations or socio-cultural mobility occurring within a specific time and place, over a certain distance and duration (Hoşgör, 1998; Türkyılmaz et al., 1998). The concept of migration has a much broader and more fundamental meaning than simply geographical displacement (Sağlam, 2006). In this context, migration is a population movement that affects the social structure through its economic, cultural, social, and political dimensions of geographical spatial change.

Throughout human history, migration has arisen not only from the desire to take advantage of spatially unequally distributed economic opportunities, but also from compelling factors such as ecological necessities, exiles, settlement policies, or wars (Kaygalak, 2009). Today, migration has not only gained a global dimension but has often become a necessity rather than a choice (Kara & Korkut, 2010). Due to this intense and global-scale mobility, Castles & Miller (2008) characterize our era as the "age of migration." Throughout its history, Turkey has been subjected to large-scale and forced migration waves for various reasons. In particular, the civil war that began in Syria in 2011 led to intense mass migration movements, and Turkey witnessed millions of Syrians seeking refuge (Bostan, 2018; Topal, 2015). In particular, the Eastern Mediterranean route, which migrants have long preferred to reach the European Union via Turkey (see Figure 1), is heavily used (cited in the International Organization for Migration [IOM], 2019). Looking at the number of Syrians under temporary protection in Türkiye, the figures are as follows: 3,535,898 in 2022, 3,214,780 in 2023, and approximately 3,115,182 as of May 23, 2024. Regarding the distribution by province, Istanbul, Gaziantep, Şanlıurfa, Hatay, and Adana stand out in that order (Directorate of Migration Management, 2024). Syrians in Türkiye are under temporary protection status as defined by the Temporary Protection Regulation No. 2014/6883 dated October 13, 2014 (Temporary Protection Regulation, 2014).

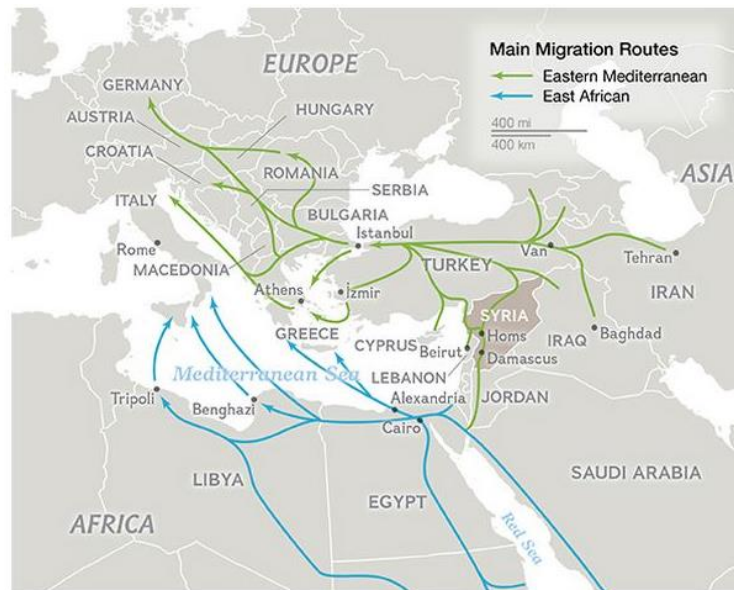


Figure 1. Main migration routes (International Organization for Migration [IOM], 2019)

The phenomenon of migration, beyond the displacement of individuals, brings to the forefront important dynamics related to interaction, conflict, separation, and social integration processes among different ethnic, social, and cultural groups, along with societal change (Aksoy, 2012; Karasu, 2018;). The concept of social integration, in particular, is of great importance in conjunction with the phenomenon of migration (Sayın et al., 2016). Socio-cultural integration requires migrants to be able to establish social and cultural relationships without fear of discrimination and to contribute to the existing cultural and social structure (Fielden, 2008). Today, migration policies necessitate focusing on the needs for achieving social integration (Akarçay & Kırlioğlu, 2020).

One of the biggest problems faced by Syrian refugees in Türkiye is integration (Ertan & Ertan, 2017). The complexity and multifaceted nature of the migration phenomenon have led to a diversification of actors involved in managing the migration process and increased cooperation among these actors. In Turkey, the concept of "integration" was first introduced into legislation with the Law No. 6458 on Foreigners and International Protection (2013). Article 96 of the law emphasizes that, in addition to public institutions, civil society

organizations and universities can contribute to integration activities. Civil society organizations play a significant role in the social acceptance and integration processes of migrants (Kalaycıoğlu & Sarıbay, 2009). Besides determining the status of refugees within the social order, civil society organizations increase social awareness and create understanding regarding the migration crisis (Kalaycı, 2016). In Türkiye, CSOs carry out various activities to meet the needs of migrants and refugees, ensure their integration, and defend their rights. These organizations operate particularly in areas such as economy, employment, humanitarian aid, education, health services, legal counseling, and psychosocial support (Akman, 2018; Aksel & Boşnak, 2022; Çebi, 2017; Duğan & Gürbüz, 2018; Karasu, 2021)

Turkey has faced one of the most significant mass and forced migration events in world history, and the integration of Syrians with temporary protection status into society has emerged as a critical issue. Utilizing the experience and expertise of public institutions and civil society organizations is a fundamental requirement for achieving social integration. The aim of this study is to examine the integration activities carried out by the Directorate of Migration Management and civil society organizations (CSOs) in Hatay province, the problems encountered in this process, and proposed solutions for the social integration processes of Syrian migrants. Furthermore, it aims to contribute to future integration activities by evaluating the views and suggestions of professionals working in these organizations. Accordingly, the aim is to analyze the problems encountered and the proposed solution strategies, and to develop concrete recommendations for future integration policies.

2. Methodology

2.1. Research Model

This research was conducted using a qualitative research method to examine the integration activities carried out by the Directorate of Migration Management and civil society organizations in Hatay province, the problems encountered, and the needs, and to determine the opinions and suggestions of the professionals working in these organizations. Qualitative research is defined as "a process that uses qualitative data collection techniques such as observation, interviews, and document analysis to realistically and holistically present perceptions and events in their natural environment" (Yıldırım & Şimşek, 2021). In the data collection process of the research, the interview technique, frequently used in qualitative research, was preferred. An interview is described as a communication process based on asking and answering questions, involving mutual interaction, aimed at a specific purpose (Yıldırım & Şimşek, 2021). Furthermore, interviews are an effective method that allows for in-depth information to be obtained about the research topic (Büyüköztürk et al., 2020).

2.2. Research Sample

This research employs purposive sampling, a method frequently used in qualitative research. Purposive sampling is a sampling approach that involves consciously selecting participants who can delve deeply into the research problem and provide rich and meaningful data on the subject. Accordingly, participants included in the study group were selected from among individuals actively working in the fields of migration and social integration, possessing field experience, and having knowledge related to the research topic.

The study group consists of a total of 10 participants working in public institutions and non-governmental organizations in Hatay province. Four of these participants are personnel from the Provincial Directorate of Migration Management, and six are experts working in non-governmental organizations. Care was taken to select individuals who directly contribute to social integration processes and play an active role in the field.

This sampling approach aims to comparatively examine different institutional perspectives on the research problem and develop a multi-dimensional understanding of the social integration process. Purposive sampling was chosen because it allows for the examination of information-rich situations in qualitative research.

Table 1.

Demographic characteristics of participants

Participant (P)	Gender	Age	Education Level	Professional Seniority Level (year)	Internal Seniority Level (month/year)
P1	Male	33	Bachelor's Degree	12	10 year
P2	Female	29	Master's Degree	4	8 month
P3	Male	33	Bachelor's Degree	10	12 year
P4	Male	26	Bachelor's Degree	2	9 month
P5	Male	27	Bachelor's Degree	3	2 year
P6	Female	25	Bachelor's Degree	2,5	10 month
P7	Male	26	Bachelor's Degree	3	1 year

P8	Female	29	Bachelor's Degree	2	1 year
P9	Female	30	Bachelor's Degree	6	6 year
P10	Female	30	Bachelor's Degree	2	1 year

2.3. Data Collection Tools and Procedure

The research data was obtained using a semi-structured interview form. A semi-structured interview form is a data collection method that allows for both asking specific questions while adhering to predetermined topics or areas, and also allows for the flexibility of asking additional questions to obtain detailed information related to these questions. In this method, it is not mandatory to ask the questions in a specific order; the order of questions can be changed depending on the answers given by the participants during the research process (Yıldırım & Şimşek, 2021).

The interview form was developed to ensure that all dimensions and questions related to the research problem are addressed comprehensively. In the process of creating the interview form, items were prepared by first reviewing the relevant literature. In order to ensure the content validity of the form, the opinions of field experts were consulted, and necessary adjustments were made in line with the feedback. The interview form consists of two main sections. The first section contains 7 items aimed at determining the demographic characteristics (age, gender, education level, etc.) and professional positions of the participants. The second section contains 9 items aimed at determining the perceptions, experiences, and activities carried out by the participants regarding the social integration of refugees and asylum seekers. These questions aim to elicit participants' assessments of the current situation as well as their suggestions for future work.

2.4. Data Analysis

The data collected within the scope of the study were examined using content analysis techniques. Content analysis is defined as a systematic and repeatable analysis method in which words and expressions in texts are summarized into smaller, meaningful content categories through coding based on specific rules (Büyüköztürk et al., 2020). This method allowed for a detailed analysis and description of participants' opinions regarding the integration activities carried out by the Directorate of Migration Management and Civil Society Organizations (CSOs).

The content analysis process includes specific stages: determining research objectives, defining basic concepts, determining analysis units, locating relevant data, developing a logical structure, creating coding categories, evaluating and interpreting numerical data, and reporting the findings (Büyüköztürk et al., 2020). In this context, frequency data was used to quantify the data during the analysis process, thus enabling a more concrete evaluation of the participants' responses. During the analysis of the data, the participants' responses were separated into themes and categories to identify similarities and differences; trends and significant findings were identified based on the participants' opinions. Content analysis contributed to an in-depth examination of the collected data in accordance with the research objective and to revealing general trends regarding adaptation activities.

3. Findings

1. The first sub-problem of the research is formulated around the question, "What types of studies are you conducting regarding refugees and asylum seekers?" The analysis findings related to this sub-problem are presented in Table 2.

Table 2

Findings regarding the question: What kind of work are you doing related to refugees and asylum seekers?

Theme: What kinds of activities do you carry out regarding refugees and asylum seekers?		
Code	f	Interviewee codes
Capacity building in education	5	P1, P2, P3, P4, P5
Protection projects	6	P1, P2, P5, P6, P7, P10
Case management activities	3	P1, P5, P6
Access to healthcare services	5	P1, P2, P3, P5, P6
Integration activities	4	P1, P8, P9, P10
Psychosocial support	6	P1, P2, P3, P8, P9, P10
Needs assessment and access to livelihoods	3	P2, P3, P4
Safe and voluntary return processes	2	P6, P7
Support for access to legal rights	3	P2, P3, P4
Awareness-raising activities	2	P1, P4
Women empowerment projects	3	P3, P5, P6

Data updating	4	P7, P8, P9, P10
According to the data in Table 2, the answers to the question "What kind of work are you doing regarding refugees and asylum seekers?" were coded as follows: 'Capacity building in education, protection projects, case management activities, facilitating access to health services, integration studies, psychosocial support, needs analysis and access to livelihoods, safe and voluntary return processes, supporting access to legal rights, awareness-raising activities, projects aimed at empowering women, and data updating.' Direct quotes from the opinions of public institution personnel and civil society organization personnel are presented below. <i>"I directly provide psychosocial support and individual counseling. In addition, I conduct awareness and education sessions. Together with the team I lead, we carry out social counseling, legal counseling, supportive training programs, and health counseling activities."</i> (P4) <i>"Again, we do our best to help those who are victims of war or earthquakes, especially when they face any health problems." These include things like providing prosthetics or monitoring the health process"</i> (P2) <i>"As a social integration effort, we plan activities with a collaborative production approach, experiencing living practices together with the local community and the refugee community. We are working to transfer legal and cultural norms in Turkey to refugee communities"</i> (P1) <i>"We conduct needs assessments. After needs assessments are made, if the needs can be met within the institution, we meet them within the institution. If they cannot be met within the institution, we make referrals. Here, we first look at whether the public institution can meet them; if it is not provided by public institutions, we provide it. If we cannot provide it, we refer them to stakeholders in the field"</i> (P5). Based on the responses given, it shows that the personnel of public institutions and civil society organizations carry out multi-dimensional work such as psycho-social support, legal and social counseling, monitoring of health services, social integration efforts, and referrals based on needs assessment for refugees and asylum seekers. These efforts reflect a broad approach aimed at meeting the basic needs of individuals and supporting their integration processes with society. 2. The second sub-problem of the research was formulated as "What are your thoughts on the temporary-permanent status of Syrian refugees?". The findings related to the analysis of the second sub-problem are given in Table 3.		
Table 3.		
<i>Findings related to the question "What are your thoughts on the temporary-permanent status of Syrian refugees?"</i>		
Theme	Code	Interviewee codes
What are your views on the temporariness-permanence status of Syrian asylum seekers?	They do not want to return	P1, P2, P3, P5, P6, P7, P8, P9, P10
	They want to return	P1, P5, P7
The findings regarding the question, "What are your thoughts on the temporary-permanent status of Syrian refugees?", are coded as "they do not want to return" and "they want to return", as shown in Table 3. The opinions of public institution personnel and civil society organization personnel on this issue are presented below with direct quotations. They expressed two different opinions: "They do not want to return" and "They want to return". P1, P5, and P7, who believe that the temporary-permanent status of foreigners depends on the variability of their conditions, expressed the issue as follows; "When viewed in the context of status, apart from being in Temporary Protection Status, while the conditions for obtaining legal residency rights, such as identity card procedures and data updates, were easier when Syrians first arrived in the country, recently the opposite has happened. We see that there are Syrians who want to return to their country due to reasons such as the economic and political instability in the country," they stated. In parallel with the P1, P2, P3, P5, P6, P7, P9, P10 temporary-permanent statuses; <i>"We have observed that foreigners do not want to return to their country again because the war is still ongoing in Syria and there is no safe environment. Another reason why foreigners want to stay is that the regime in Syria is still in power."</i> The temporary-permanent statuses of Syrian refugees vary depending on both the variability of legal, economic and political conditions in Türkiye and the security and regime problems in Syria. While some refugees intend to return to their countries, others prefer to stay in Turkey due to the ongoing war and insecurity. 3. The third sub-problem of the research is structured around the question, "What activities are carried out by CSOs or public institutions to help refugees with temporary protection status integrate into society?" The results of the analysis regarding this sub-problem are presented in detail in Table 4.		
Table 4.		

Findings regarding the question: "What activities have you carried out as an CSOs or Public Institution to help refugees with temporary protection status integrate into society?"

Theme	Code	f	Interviewee codes
<i>What activities do you carry out as CSOs or public institutions to support the integration of asylum seekers under temporary protection into society?</i>	Language courses	6	P1, P2, P3, P4, P5, P6
	Health services	2	P1, P4
	Awareness sessions	2	P1, P3
	Special days and weeks activities	9	P1, P2, P3, P4, P5, P6, P8, P9, P10
	Psychosocial support	3	P1, P2, P3
	Protection activities	4	P1, P2, P3, P4
	Information meetings	4	P7, P8, P9, P10
	Suye Project	3	P8, P9, P10
	Household and shopkeeper visits	4	P5, P8, P9, P10

As indicated in Table 4, the responses to the question, "What activities are you carrying out as CSOs or public institutions to help refugees with temporary protection status integrate into society?" were coded as follows: "Educational activities, language courses, awareness sessions on health services, celebration of special days and weeks, psycho-social support, protection activities, information meetings, the Suye Project, and household and business visits." In this context, the opinions of public institution and civil society organization personnel are presented below with direct quotations.

"The common framework of all our work is integration. Here, a container city area is planned to provide them with a safe life, and a project is being developed where they can open their own businesses. After the widespread trainings we conduct with our stakeholders and the integration courses with the Directorate of Lifelong Learning, vocational courses are given to foreigners. These include training in cooking, tailoring, hairdressing, painting, sewing and embroidery. Of course, depending on the demands, we provide opportunities for them to gain professional experience through different trainings." (P2).

Speakers stated that "Social integration is a fundamental criterion. Integration in society and the situation of society getting to know each other begins with language, and many language courses are provided to improve people's language skills." They stated that they continue language studies to improve the negative social norms of individuals who, despite being in Türkiye, still rely on translators for language practice.

P1, P2, P3, P4, P5, P6, P8, P9, P10, in parallel, reported that they organize events that bring together the local and foreign communities for "Special Days and Weeks." P3 cited the April 23rd event as the most recent example, noting that nearly 5,000 children participated, making the event heterogeneous with the participation of both local and foreign children. They also stated that similar events, such as seminars and symposiums, are organized for all special days and weeks.

The work undertaken is spread across a wide range to ensure the integration of Syrian refugees into society. Language courses and vocational training are emphasized as fundamental elements of the integration process, while events such as special days and weeks offer opportunities for social interaction that bring together the local and foreign communities. These efforts help to strengthen social cohesion and facilitate the refugees' participation in social life.

4. The fourth sub-problem of the research was formulated as "Do you think that CSOs or Public Institutions have a role in ensuring social cohesion?" The answers given to the question "Do you think that CSOs or Public Institutions have a role in ensuring social cohesion?" were coded as "Of course I think so." The opinions of public institution personnel and civil society organization personnel on this issue are presented below with direct quotes:

"Of course I think so. Civil society organizations have more inclusive access to foreigners. And foreigners feel more comfortable and trust civil society more. Therefore, civil society has an important role." (P6).

"Of course I think so. I especially think that cooperation between the Public and Civil Society plays a very important role in this regard." (P3).

"Yes, of course I think so. Since civil society organizations can establish direct contact with foreigners, they play an important role in ensuring integration." (P4).

"Of course, I think that the trainings carried out and the work done towards integration increase awareness within society and lead to increased sharing between the homeland, which alleviates the divisions in society to some extent." (P7).

As seen from the answers, both public institutions and civil society organizations play an important role in ensuring social integration. While civil society organizations have a critical impact on the integration process by offering closer and safer access to foreigners, it is emphasized that public and civil society cooperation strengthens this process. In addition, the trainings and awareness-raising activities carried out help to alleviate divisions within society and increase mutual sharing. These factors stand out as an effective strategy in ensuring social integration.

5. The fifth sub-problem of the research is, "What are your thoughts on the role of the state-refugee and CSOs relationship in the migration process?" This study was conducted in response to the question: "What are your thoughts on the role of state-refugee and CSOs relations in the migration process?" The findings related to the analysis of this sub-problem are presented in Table 5.

Table 5.

Findings related to the question: "What are your thoughts on the role of state-refugee and CSOs relations in the migration process?"

Theme	Code	f	Interviewee codes
What are your views on the role of the state-asylum seeker – CSOs relationship in the migration process?	CSOs serve as a bridge	9	P1, P2, P3, P5, P6, P7, P8, P9, P10
	CSOs alleviate the workload of the state	3	P6, P7, P10

As seen in Table 5, the responses to the question, "What are your thoughts on the role of the state-refugee and CSOs relationship in the migration process?" were coded as, "CSOs act as a bridge and alleviate the workload of the state." The opinions of public institution personnel and civil society organization personnel on this issue are presented below with direct quotes: "Civil society plays an important bridging role between foreigners and the state. Foreigners feel safer approaching state institutions through civil society. Civil society organizations are seen as stakeholders in the work to be done between the state and foreigners." (P5).

"The state and civil society organizations are two very important institutions for refugees. Refugees turn to the state where civil society is lacking, and to civil society organizations where the state is also lacking." "Based on my experiences in this regard, I can say that Civil Society Organizations serve as an important bridge between the State and refugees." (P9)

"The state is the lawmaker; the state sets the framework. Refugees and Civil Society Organizations must comply with the laws. Civil society organizations act as a bridge between the state and refugees. A refugee may not be able to find a direct contact person in a state office, but they can find one in a civil society organization. Foreigners who cannot understand a state practice in any way can understand it thanks to civil society organizations. Civil society organizations complete the missing information in conveying laws and regulations to refugees." (P3)

"Civil society organizations serve as a bridge between the State and foreigners. While Civil Society Organizations lighten the workload of the State in many areas, the State facilitates the access of Civil Society Organizations to a wider audience of foreigners." (P7)

The responses emphasize that civil society organizations play a critical bridging role between the state and refugees. Civil society makes the services and practices of the state more understandable to foreigners, while at the same time lightening the workload of the state. When refugees have difficulty communicating directly with the state, they can receive support by turning to civil society organizations. This interaction constitutes an important mechanism that strengthens cooperation between both sides and complements the shortcomings in the migration process.

6.The sixth sub-problem of the research is formulated as follows: "As an organization working with migrants, considering your field experiences, what are the main challenges encountered in the integration process of migrants?" The findings related to the analysis of the sub-problem are given in Table 6.

Table 6.

Findings related to the question: "As an organization working with migrants, considering your field experiences, what are the main challenges encountered in the integration process of migrants?"

Theme	Code	f	Interviewee codes
	Language barrier	10	P1, P2, P3, P4, P5, P6, P7, P8, P9, P10

As an organization carrying out activities for migrants, based on your field experience, what do you think are the main challenges migrants face during the integration process?	Economic conditions	7	P3, P4, P5, P6, P7, P9, P10
	Cultural structures	10	P1, P2, P3, P4, P5, P6, P7, P8, P9, P10
	Educational levels	7	P1, P2, P3, P6, P7, P8, P9
	Media	5	P1, P3, P7, P9, P10

As shown in Table 6, the responses to the question, "As an organization working with migrants, considering your field experiences, what are the main challenges migrants face in the integration process?" were coded as "Language barrier, economic situation, cultural structures, education level, media, legal status and rights." Direct quotes from public institution personnel and civil society organization personnel on this subject are presented below. *"The biggest challenge is the language barrier. Language is actually an important component when it needs to be examined within integration. The language barrier can be a serious problem. Sometimes insufficient language skills can lead to problems in finding a job, receiving support in education, or in social integration."* (P1)

"It is difficult for an individual without economic independence to have a social life outside." "Most Syrian refugees are lagging behind in social life because they haven't achieved economic independence, which makes their integration into society difficult" (P9).

"There are still children who are not included in education. This can be due to peer bullying or language barriers. I can say that these kinds of education, education specifically for them, should continue" (P6).

"The fact that foreigners are unaware of their own rights and the legal processes and laws of the Republic of Turkey, or that they are not being informed or are not being informed at all, is one of the different factors that make social integration difficult. Their lack of awareness regarding their rights in health and education prevents social integration" (P4).

Looking at the responses, it shows that the main difficulties faced by immigrants in the integration process are multifaceted. While language barriers create significant obstacles in fundamental areas such as education and job opportunities, the lack of economic independence also makes their social integration difficult. In addition, the fact that immigrants do not have sufficient knowledge about their legal rights and the legal processes of Turkey constitutes a serious obstacle in the integration process. Each of these factors is among the important challenges that prevent immigrants from integrating more effectively into society.

7. The seventh sub-problem of the research is based on the question, "What can be done to overcome the difficulties/obstacles you have identified, and what activities are you carrying out to overcome these difficulties?" The opinions of public institution personnel and civil society organization personnel regarding the analysis of this sub-problem are presented below with direct quotations. *"We also observe that providing legal counseling and information sessions through social service specialists and experts in our offices is an important component in supporting foreigners to live safely and healthily in Türkiye and to integrate into society. There are also committees that foreigners have established among themselves, such as women's committees and children's committees. We believe it is important to support these and to ensure that accurate information is disseminated among them as well"* (P1).

"For the work to overcome difficulties to be done locally and for the needs of the region to be identified, it is really necessary for field experts to go into the field. First, the problems need to be clearly identified because it is very difficult to talk about a general problem and a general solution. I think that the work should be more localized because the problems are different, the underlying dynamics of the problems are different, and we can solve the integration barrier by doing more localized work." (P7)

"Regarding what we do to overcome difficulties, as an institution, we attach great importance to the education aspect. We focus heavily on the concepts of respect, tolerance, and understanding, reminding people of boundaries and limitations, but at the same time, we always emphasize our rights and freedoms. "As an association, we place great importance on the place of women in society, and we do our best to ensure that all our clients, regardless of gender, culture, or nationality, are aware of this" (P5).

"The problems we encounter in the field are that children cannot participate in education. We need to look at what the fundamental problem is. If it is peer bullying or a language barrier, then accelerated education projects need to be continued."

In addition, if women are facing language barriers in accessing treatment and health services, then Turkish language courses need to be increased. Foreigners have more social closeness among themselves, but if this is not the case with Turkish people, then the effectiveness of social projects aimed at this could be increased. We are actually trying to carry out these kinds of activities ourselves" (P6).

The responses reveal various solution proposals and activities aimed at overcoming the difficulties faced by immigrants. Education, especially language courses and developing cultural understanding, stand out as

fundamental tools in overcoming these difficulties. Counseling and information provided through social service professionals.

While integration sessions facilitate access to legal rights for migrants, local-level efforts ensure that problems are addressed more specifically and effectively. Furthermore, supporting women's and children's committees is highlighted as a crucial step in strengthening social integration. Increasing social projects and activities is another important strategy that facilitates the integration of migrants into the local community. These studies demonstrate the need for a multifaceted approach to overcoming diverse challenges.

To the final question of the study, "If you have anything else to say, please let us know," P1, P2, P3, and P4 responded with "No, thank you."

"I think that social integration courses should be added to the curricula. Due to the lack of coordinated work in integration efforts, the same groups receive the same work and aid, leading local people to feel discriminated against. Therefore, a common data reporting system should be established." (P5).

"The focus groups for integration efforts are mostly women, children, and young people." "However, I think there is a lack of integration efforts targeting family heads or working men who have to stay outside the home more as income earners" (P6).

"The financial and in-kind aid provided by CSOs to foreigners is leading the Turkish people to hatred and animosity. I believe that this creates racism and division within society" (P8).

"All efforts made to ensure integration are very valuable, but foreigners must be willing to integrate; otherwise, it is very difficult for this to happen. Another phenomenon I encountered in the field is that foreigners with a high economic level integrate into society more quickly. This shows us that economic level plays an important role in integration" (P10).

Looking at the responses, some important observations and suggestions regarding the integration process of immigrants into society emerge. First, it is stated that the lack of coordination in integration efforts and the repeated aid to the same group fuel feelings of discrimination and prejudice among the local population. At this point, it is emphasized that a common data reporting system should be established to manage the integration process with the local population in a healthier way. Furthermore, it is stated that integration efforts need to be made more comprehensive, and that there are shortcomings in studies specifically targeting male heads of household. The role of economic level in the integration process also stands out as an important factor; it is noted that foreigners with better economic situations integrate into society more quickly. In addition, some opinions argue that aid provided by CSOs creates racism and discrimination among the local population, and that this negatively affects social cohesion. Finally, factors such as the importance of voluntary participation of foreigners in achieving integration, the impact of their economic status on the integration process, and the reduction of social prejudices emerge as elements that should be considered for the process to progress more healthily.

4. Discussion and Conclusion

Özütürk's (2019) research addresses the problems faced by Syrians in the process of social acceptance and integration from various perspectives. The study indicates that polygamy and child marriage, within the context of cultural structure, are among the factors negatively affecting the social integration process. Regarding language learning, it is stated that Syrians do not resist learning Turkish, and the language problem tends to decrease in certain groups. However, this study found that due to the local population's knowledge of Arabic, the need for foreigners to learn Turkish has decreased, and they cannot speak Turkish at a level sufficient to carry out daily transactions without an interpreter. The research also reveals that Syrians' lack of sufficient knowledge about their legal status and rights leads to problems such as lack of health insurance, illegal or uninsured employment. In addition, it has been observed that due to a lack of information about legal processes, they give up seeking their rights despite the injustices they face. These findings are consistent with the research findings and highlight the structural and individual difficulties faced by Syrians in their social integration processes.

Aygüler et al. (2020) research focuses on the economic and social problems faced by Syrians in the process of social acceptance and integration. The research indicates that the low income levels of foreigners negatively affect their integration into society. Furthermore, it is stated that in-kind and financial aid provided by Civil Society Organizations (CSOs) reduces the need for employment among foreigners, thus hindering their participation in society. The inadequacy of cooperation between the public sector and CSOs is highlighted as another factor restricting social cohesion. The research suggests that public institutions and organizations should develop more effective and regular cooperation mechanisms with CSOs. In this context, strengthening relations between the public sector and civil society is proposed as a solution to increase social cohesion. The study by Aygüler et al. aligns with the findings of this research and clearly reveals the economic, social, and institutional problems affecting the integration of Syrians into society.

Aygüler (2020) and Bozkurt (2021) emphasize the critical role of the media in achieving social cohesion. Their research suggests that instead of divisive discourse in the media, an inclusive language should be used. It is stated that the media should assume a unifying role in strengthening inter-communal relations. This study found that hate speech, misinformation, and unfounded claims targeting foreigners are widely shared on social media. It was revealed that this situation negatively affects the relationship between the local population and foreigners. These findings demonstrate that the results of the three studies are consistent with each other and reveal the impact of media on social integration.

Bozkurt's (2021) study focuses on activities carried out by public institutions to support the social integration of Syrians. These activities include various practices such as education, health services, social assistance, vocational courses, strawberry cultivation, and the opening of shoe manufacturing facilities. This research also mentions the implementation of the Suye project, home and tradesmen visits, association visits, and the organization of information meetings for public institutions. Both studies comprehensively address activities carried out in various fields to support the integration processes of Syrians, and these findings overlap.

Karasu's (2021) study focuses on the relationships between the state, refugees, and civil society organizations (CSOs). The study states that public institutions exhibit a distant approach to cooperation with CSOs. However, in the research area, it was found that CSOs act as a bridge between the state and refugees, facilitating communication between these two parties. This indicates a difference between the findings of the two studies. While Karasu's (2018) general finding emphasizes the distance in public-CSOs relations, this research suggests that CSOs fill this gap and undertake an effective mediating role. Özütürk's (2019) study indicates that rights-based civil society organizations (CSOs) carrying out integration activities for Syrians do not experience any problems with the state. However, in the research area, it was stated that CSOs act as a bridge between the state and refugees, playing a critical role in this process, especially by completing the deficiencies of the state in conveying its statutes and regulations to refugees. These findings reveal a difference between the two studies. Özütürk argues that CSOs work in harmony with the state.

While emphasizing that they are working towards this goal, the findings in this research show that CSOs are assuming a more active and independent mediating role by filling the functional gaps of the state. This situation points to different approaches at the theoretical and field levels.

5. Recommendations

This study examines the obstacles affecting the social integration processes of Syrians who have migrated to Hatay province under temporary protection status, based on the experiences of field workers who have actively worked or are currently working in public institutions and civil society organizations. The findings were determined in light of the observations and evaluations of field workers, and the following main problem areas were identified:

1. Turkey's potential to be a country that constantly receives migrants due to its geographical location,
2. Lack of cooperation between public institutions and civil society organizations,
3. The existence of a language barrier,
4. Inadequacies related to educational levels,
5. Cultural differences making integration processes more difficult,
6. Uncertainties regarding the legal status and rights of migrants,
7. Negative effects of the media on the integration process,

8. Negative effects of economic conditions on migrants. In addition to these problem areas, the study also includes a detailed analysis of the subcategories of the relevant headings. Thus, a multi-dimensional analysis of the social integration processes of Syrian migrants has been carried out. This study examines the obstacles encountered in the integration processes of Syrians who migrated to Hatay province under temporary protection, and suggestions for overcoming these obstacles, based on the experiences of field workers.

Item 1: Turkey's Migration Potential

Due to its geographical location, Turkey is a country open to migration, making long-term planning necessary in integration efforts. It is suggested that the inclusion of only the Provincial Migration Administration and CSOs in integration processes is insufficient, and that local administrations and special policies for border cities should be developed.

Item 2: Lack of Cooperation Between Public and Civil Society Organizations

The lack of cooperation between public and CSOs negatively affects the effectiveness of integration efforts. To solve this problem, it is suggested that a common database be created, inclusive studies that consider gender equality be carried out, and policies that cover a broader range of people instead of specific groups be adopted.

Item 3: Language Barrier

It has been noted that the language barrier poses less of a problem in Arabic-speaking regions such as Hatay. However, it is recommended to increase language courses, to consider language training certificates in citizenship processes, and to reduce the need for interpreter support.

Item 4: Educational Situations

It is recommended to address problems such as peer bullying and class imbalances that make it difficult for Syrian children to access education; to organize supportive courses for disadvantaged children and to adopt flexible education policies.

Item 5: Cultural Structures

The cultural structures of Syrian refugees cause various difficulties in the integration process. Early marriages and different perceptions regarding women's rights are particularly noteworthy. It is recommended to increase legal sanctions to prevent early marriages and to organize information sessions on women's rights and gender equality.

Item 6: Legal Status and Rights

The lack of information regarding the legal status and rights of Syrian refugees leads to problems such as labor exploitation, uninsured employment, and inadequate access to legal processes. It is necessary to address these deficiencies and increase information campaigns regarding legal procedures.

Item 7: Media and Perception Management

It is recommended that content be monitored and punitive measures be applied to prevent hate speech and misinformation on social media; and that content that increases social tolerance be disseminated.

Item 8: Economic Conditions

Problems such as language barriers, inadequate education, and lack of professional qualifications stand out in the employment of refugees. In addition, it has been observed that in-kind and financial aid provided by civil society organizations creates a reluctance to work among refugees. To solve the problems experienced in the employment of refugees, it is recommended to increase vocational training courses, implement state-supported incentive programs, and reorganize aid policies.

Impact of the Earthquake Process on Integration Efforts:

The earthquakes centered in Kahramanmaraş on February 6th significantly affected integration efforts in Hatay. It has been stated that projects that had begun to yield positive results before the earthquake were interrupted by the earthquake, and foreigners returned to their starting points. Post-earthquake integration efforts were replaced by activities focused on basic needs, and the issue of integration was relegated to the background.

It has been emphasized that in integration efforts to be carried out in the post-earthquake period, the shortcomings and mistakes of the past should not be repeated. With Hatay regaining its normal living standards, it is recommended that integration efforts be replanned and more comprehensive and sustainable policies be developed with the participation of all stakeholders.

6. Declarations

All articles must be submitted with a "Declaration" section that includes the following headings. Under this heading, the points that authors should pay attention to are stated.

Ethics Approval and Consent to Participation. Informed consent was obtained from participants during the data collection process conducted within the scope of this study. Ethical approval for the study was obtained from the Gaziantep University Social and Human Sciences Ethics Committee with decision number 01 dated 04.01.2023.

Approval for Publication. Not Applicable.

Availability of Data and Materials. The data used and analyzed in this study is available only to the authors in a manner that complies with data privacy regulations, within their own records.

Competing Interests. The authors declare that they have no competing interests.

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Investigation of the Relationship Between Academic Progress Behavior and Their Career Indecision and Irrational Belief of Secondary Education Z Generation Students

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Abstract

This study aims to examine the relationship between the academic procrastination behavior of Generation Z students in secondary education and their career indecision, irrational beliefs, and sub-dimensions of career choice, by gender and grade level. The research data were obtained from 11th- and 12th-grade students at high schools in the center of Adıyaman. Independent-samples t-tests and Pearson correlations were preferred for data analysis. In the study, academic procrastination did not differ among Z-generation high school students by gender or grade level. While no significant differences were observed by gender, among the sub-dimensions of the career decision inventory, the scores for not knowing oneself enough, lack of professional and field knowledge, and external conflicts differed significantly by grade level. A low positive correlation was found between academic procrastination and irrational beliefs about career choice. When examining the dimensions of the Career Decision Inventory by grade level, it was found that while group averages for irrational beliefs regarding career choice and internal conflicts did not differ, group average scores for the Career Decision Inventory and its sub-dimensions, specifically insufficient self-knowledge, lack of career field knowledge, and external conflicts, did differ.

Keywords:

Career indecision, academic progress behavior, Generation Z

1. Introduction

A generation is defined as a group of people born within a similar timeframe, living during the same period, experiencing the conditions of that era, and facing its challenges together (TDK, 2022). Defining generations solely by age is insufficient. Additionally, it has been reported that individuals within the same generation share similar

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emotions, thoughts, and life experiences (Adıgüzel, Batur & Ekşili, 2014). When examining classifications related to generations, it has been noted that concepts such as the baby boom, Generation X, Generation Y, and Generation Z have become part of everyday life, as evidenced by their presence in the literature. By the 20th century, an increase in studies on generations was observed alongside population growth. During this period, the emergence of consumer-target audiences and the conduct of marketing research added new dimensions to generational definitions (Karahasan, 2018).

The Generation Z members included in the study were identified as a generation that is technologically advanced, highly educated, and creative (Trevino, 2018). In their academic lives, Generation Z individuals are described as actively seeking and questioning information. Furthermore, it has been found that students in this generation are eager to learn information actively. Known as the "Internet Generation," Generation Z was born during the most advanced era of communication technology, leading to their membership in various online networks and their extensive socialization on these platforms. It has also been revealed that they are a generation that prefers living alone, is creative and collaborative, and is more inclined toward written communication (Sarioğlu, 2018). The events they have witnessed play a significant role in shaping the behavior of Generation Z. Being born into the digital world has been identified as their most fundamental characteristic. Generation Z is viewed as the first generation to have grown up in a digitalized and globalized world. It is emphasized that this generation, which generally lives online, cannot even imagine life without computers (Büyüksulu, 2017).

It is believed that Generation Z's frequent exposure to the digital world brings numerous psychological and academic challenges. While individuals in this generation struggle with the emotional, psychological, and social changes of adolescence, they are also at a stage when they must make career decisions. In this context, Generation Z tends to perceive work as an ongoing process of personal development and learning; they value autonomy and flexibility in the workplace, see technology as an essential component of daily life, and prefer organizations that provide opportunities for professional growth and continuous education (Söner, 2024). It has been reported that adolescents facing these challenges may postpone the academic responsibilities they are required to fulfill in their daily lives. Along with academic procrastination, individuals experience hesitation and anxiety regarding career choices, ultimately leading to career indecision (Siyez, 2012).

Today, one of society's most important needs is securing a profession. Although social order transforms, the importance of having a profession never changes. Kuzgun (2017) reported that acquiring a profession is a significant variable in an individual's self-actualization process. Scientific career guidance studies began in the 1900s with Frank Parsons. Building on Parsons' (1909) trait-factor theory, he emphasized that an individual's personality traits must align with occupational characteristics in career selection (Yeşilyaprak, 2013). The field of vocational guidance, which began with Parsons (1909), has evolved into career counseling today. The career counseling process is a phase that every individual goes through, typically occurring between the ages of 14 and 18. During this period, the individual is in a critical phase of career decision-making (Siyez, 2012). During this time, the adolescent is also trying to cope with the career selection process. The adolescent, focused on career selection, is also striving to fulfill academic responsibilities, such as preparing for exams, completing reading assignments, and participating in class. On the other hand, they may also exhibit procrastination behaviors. Ekşi and Dilmaç (2010) define procrastination as an irrational delay and an illogical behavior. The context in which procrastination occurs and its frequency vary from person to person. An individual may procrastinate in just one area of their life, or across all aspects of their life. The consistent use of procrastination behaviors leads to the development of a habit of procrastination. In school-based educational processes, the development of students' sense of responsibility is among the factors that can reduce academic procrastination. It has been reported that a lack of responsibility among students contributes to the development of academic procrastination (Yiğit & Dilmaç, 2011). Yılmaz (2016), who examined academic procrastination behavior among high school students, identified a positive correlation between hopelessness and academic procrastination, and a negative correlation between problem-solving and academic procrastination. Problem-solving and hopelessness were identified as predictors of academic procrastination. It was found that male students exhibit higher rates of academic procrastination than female students. Additionally, Karadeniz (2020) identified a negative relationship between motivation and procrastination, while also demonstrating that depressive symptoms partially mediate the relationship between procrastination and motivation.

Another factor that significantly influences Generation Z students is the career decision-making process. An individual's career choice, shaped by their cultural background, is one of the key issues that requires particular attention when planning one's career indecision path. This is because an individual's career choices will significantly impact a large portion of their future life and, consequently, their quality of life. Making such a complex decision that directly impacts one's life is quite challenging for an individual. Given the complexity of the career decision-making process and the need to align the profession's characteristics with the individual's personal traits, this process poses significant challenges (Öztemel, 2012). This challenging period spans the career choice process from childhood through adolescence. This process introduces new definitions to career decision-making. These definitions consist of four elements: career aspirations, preferences, plans, and choices. A career aspiration is a child's career choice, such as saying, "When I grow up, I want to be a teacher, doctor, lawyer, etc."

The preference phase involves ranking career choices. As preferences narrow, assumptions are made about a few specific professions. Finally, a selection is made among the narrowed-down career options (Özyürek, 2022).

The decisions that determine individuals' career choices are influenced by variables such as their needs, gender, socioeconomic status, self-efficacy, risk-taking, and abilities. It has been determined that individuals leave their career success and happiness to chance due to career indecision (Alver & Kutluca, 2019). Furthermore, the causes of career indecision include problem-solving skills, the adequacy of personal guidance, family attitudes toward career development, internal conflict, dysfunctional thoughts, hopelessness, depression, and lack of intrinsic motivation, as well as factors such as intellectual capacity, having more experience, and diligence (Akkoç, 2012).

Furthermore, career indecision is associated with factors such as misalignment between individuals' interests and abilities, parental attitudes, poor identity development, and a perceived external locus of control. Furthermore, it has been reported that career indecision is associated with variables such as anxiety, personality disorders, neurotic personality, career anxiety, perceived self-efficacy in career decision-making, life goals, strategic coping methods, levels of positivity, and family influence (Yılmaz & Bedel, 2021). Fernandes and Bance (2015) demonstrated that career indecision and career choice are associated with a range of internal and external factors in adolescents' lives. It was found that empowered adolescents tend to make appropriate choices when given the freedom to do so. The study concluded that parents, relatives, teachers, and peers should support adolescents, and recommended the design of a career guidance program that facilitates both informative and appropriate career decisions. Şahin et al. (2015), who examined the relationship between career indecision, irrational beliefs, and locus of control among high school seniors, found that career indecision was associated with the subdimensions of locus of control. In contrast, irrational beliefs were not significantly associated with career indecision. In a similar study examining high school students' locus of control and career indecision, Çapçı (2017) found a significant inverse relationship between career indecision and the external locus of control subscale—specifically, internal conflicts, insufficient self-awareness, external conflicts, and lack of field and occupational knowledge.

Throughout secondary school, students make career choices based on cognitive processes. Individuals make various cognitive inferences in their actions as they navigate their lives. These cognitive evaluations encompass past experiences, lessons learned, and beliefs. These cognitive inferences may be rational, but they may also be based on irrational beliefs. Consequently, these beliefs can be healthy or unhealthy (Erdem, 2006). Irrational cognitive beliefs can lead Generation Z students experiencing career indecision to make incorrect career decisions. According to Elliot (1995), irrational cognitive beliefs can lead to low self-esteem, career indecision, procrastination, and unwanted career choices when selecting a profession. In short, knowing one's interests, discovering one's abilities and values, and making career choices based on rational beliefs significantly contribute to self-actualization. The relevant literature emphasizes that individuals' indecision is caused by low self-esteem, self-doubt, career anxiety, and irrational beliefs about career choice (Akkoç, 2012; Aydemir, 2017; Çapçı, 2017; Hamamcı & Çoban, 2007; Kırdök & Kayadibi, 2018; McAuliffe, 1991; Öztel, 2012; Söner & Yılmaz, 2022; Söner & Yılmaz, 2025).

Irrational beliefs are beliefs that are inconsistent with reality, rigid, and illogical. Irrational beliefs, which prevent people from sustaining their lives and being happy, make them more susceptible to psychological problems (Sharf, 2014). Irrational career beliefs also negatively affect the decision-making process regarding career choice. By limiting an individual's ability to define a suitable career, they weaken career choices through indecisive thoughts. Individuals tend to avoid solving career-related problems, instead procrastinating, feeling anxious, and relying on external factors. It has been determined that individuals with irrational beliefs exhibit an external locus of control when making career decisions. These individuals have been found to exhibit excessive perfectionism, make incorrect inferences, engage in generalization, and have low self-esteem. Such irrational thoughts in an individual increase external locus of control and anxiety, thereby reducing self-esteem and self-efficacy and diminishing self-efficacy regarding career choice (Kim & Lee, 2015). Walsh and Timpson (1995) argue that irrational career beliefs hinder individuals' learning and lead them to neglect career-relevant issues. Irrational beliefs lead individuals to make negative decisions about their careers and futures, preventing them from making rational choices. As irrational beliefs decrease, individuals come to know themselves and recognize their potential, enabling them to think more meaningfully and healthily and to make more realistic and creative career choices (Çapan & Owen, 2018). Walsh and Timpson (1995) argue that irrational career beliefs hinder individuals' learning and lead them to neglect career-relevant issues. Irrational beliefs lead individuals to make negative decisions about their career and future, preventing them from making rational choices. As irrational beliefs decrease, individuals come to know themselves and their potential, think more meaningfully and healthily, and make more realistic and creative career choices (Çapan & Owen, 2018). Peker, Kartol, and Demir (2015) concluded that irrational beliefs are negatively associated with decision-making styles. In a similar study, Kutluca (2020) examined high school seniors' social media attitudes and irrational beliefs regarding career choice in relation to their field of study, gender, academic achievement, socioeconomic status, and the field of study they intended to pursue in college. In their meta-analysis, Duru and Söner (2024) found a significant relationship between career

decision-making and optimism, locus of control, proactive personality, and emotional intelligence. According to the research findings, while there were no differences by field of study, gender, academic achievement, or socioeconomic status, time spent on social media varied by grade level and school type. Additionally, students' attitudes toward social media were found to predict their irrational beliefs. High school students in Generation Z may experience career indecision due to irrational beliefs stemming from academic procrastination in career choice. It is assumed that various activities conducted with students to help them become aware of their own interests, abilities, and values can replace their irrational beliefs about career choice with rational ones and reduce career indecision, which causes stress and anxiety among students. This study is expected to assist school counselors, administrators, parents, and students in providing accurate and effective career guidance by examining the reasons behind students' academic procrastination and its relationship with career indecision and irrational beliefs.

1.1. The Present Study

This study aims to determine whether there are differences in academic procrastination, career indecision, and irrational beliefs among Generation Z students, by gender and grade level. Additionally, the study aims to examine the relationship between academic procrastination, career indecision, and irrational beliefs. In this context, the following questions will be examined:

1. Do the academic procrastination behaviors, career indecision, and levels of irrational beliefs regarding career choice among Generation Z students in high school differ significantly based on their gender?
2. Do the academic procrastination behaviors, career indecision, and levels of irrational beliefs regarding career choice among Generation Z high school students differ significantly based on their grade levels?
3. Is there a significant relationship between Generation Z high school students' academic procrastination scores and their career indecision scores, as well as their irrational beliefs sub-dimensions (perfectionism, self-esteem, external locus of control, faulty inferences, and judgments)?

2. Methodology

2.1. Research Model

This study was designed as a correlational study to examine relationships among variables. The correlational research model refers to survey research that draws general conclusions about a population from a sample drawn from that population. In survey research, the group is surveyed as is, without pressure (Karasar, 2016). In relationship-based survey models, however, the research aims to determine whether there is a joint variation among two or more factors (Karasar, 2016).

2.2. Research Sample

The study included 800 students in its study group. However, since 152 students had incomplete responses during the analysis phase, the analysis continued with 648 students. It was found that 43.8% of the students were 17 years old, 34.6% were 18 years old, 17.4% were 15–16 years old, and 4.2% were 19 years old. Additionally, it was found that 32.8% attended Anatolian high schools, 24.4% attended science high schools, 22.4% attended Anatolian vocational high schools, and 22.4% attended Anatolian Imam Hatip high schools. It was determined that 50.9% of the students were in the 11th grade and 49.1% were in the 12th grade. When examining descriptive statistics regarding the students' parental status, it was observed that 94.4% had both parents alive and living together.

2.3. Data Collection Tools and Procedure

2.3.1. Academic Procrastination Scale

Developed by Çakıcı (2003), this scale consists of 19 items (12 negative, 7 positive) related to students' responsibilities in their learning experiences, including studying, exam preparation, and project preparation. The scale is a five-point Likert-type scale, rated from 1 to 5. The highest possible score on the scale is 95, and the lowest is 19. Higher scores indicate greater academic procrastination. Scale sample item: "I study my lessons regularly." "I come prepared for the lessons." The scale's reliability coefficient was found to be .92. The Cronbach's alpha value for Factor 1 of the scale was found to be .89. The Cronbach's alpha value for Factor 2 was determined to be .84. Since the first factor explained 37.35% of the variance before rotation and 41.88% after rotation, it was reported that the scale should be used as a unidimensional construct. The test-retest correlation coefficient for high school students was .89 (Çakıcı, 2003). Among the scales used in this study, the Cronbach's alpha value for academic procrastination was .64; this value indicates the scale's reliability and provides no reason not to use it in analytical calculations. Based on these results, the scale is valid and reliable.

2.3.2. Career Decision Inventory

This scale, developed by Çakır (2004), was designed to assess career indecision among high school students. The scale consists of 30 Likert-type items. The lowest possible score on the scale is 30, and the highest possible

score is 150. A high score indicates a high level of career indecision among students, while a low score indicates a low level. When examining the subdimensions, the scale includes the Internal Conflict (8 items), Lack of Self-Knowledge (7 items), and Lack of Vocational Information (7 items) dimensions. Inventory sample item: "My interests change frequently." "I think it's too early to make a career choice." Additionally, the scale includes the irrational beliefs in career choice (4 items) and the external conflicts (4 items) dimensions. Furthermore, a total career indecision score can be obtained from the inventory. When examining the inventory's total variance, it accounted for 40.53%. The inventory's overall internal consistency coefficient was .85.

This study revealed that the Cronbach's alpha value for the inventory was .94. Among the scales used in the study, the Cronbach's alpha values for the subscales of the Career Decision Inventory were as follows: irrational beliefs regarding career choice had a Cronbach's alpha value of .72, and external conflicts had a Cronbach's alpha value of .74. Based on these values, it can be said that the subdimensions of the Career Decision Inventory are quite reliable. Furthermore, the Cronbach's alpha values for internal conflicts were .88, for insufficient self-knowledge .85, and for lack of career and field knowledge .83. Accordingly, it can be concluded that the subdimensions of the Career Decision Inventory are reliable. In conclusion, it has been determined that there is no obstacle to using this scale in research.

2.3.3. Scale for Irrational Beliefs in Career Choice (SIBCC)

The scale was developed based on Rational-Emotive Behavior Therapy. The scale was administered to 1955 high school students. Following factor analysis, the 57-item form was reduced to 33 items (Erdem, 2006). The scale consists of 33 items and uses a five-point Likert-type rating scale. The scale does not include any reverse-scored items. Scoring is as follows: 5, 4, 3, 2, 1. It is stated that the lowest possible score is 33 and the highest possible score is 165. A high score indicates the student's irrational beliefs regarding career choice. The scale has five sub-dimensions. Scale sample item: "Choosing the right profession is a matter of chance." "Intelligent people almost always find a good job." The SIBCC perfectionism dimension is scored on a 9–45 scale, the external locus of control dimension on a 5–40 scale, the false inferences dimension on a 5–25 scale, the generalizations dimension on a 5–40 scale, and the self-esteem dimension on a 3–15 scale (Erdem, 2006). These are as follows: The Perfectionism subscale consists of 9 items, the External Control subscale consists of 8 items, and the Misattributions subscale consists of 5 items. The Generalizations subscale consists of 8 items, and the Self-Esteem subscale consists of 3 items, as reported (Erdem, 2006). The validity of the SIBCC was examined using factor analysis of 57 items and tested using the remaining 33 items. The results of confirmatory factor analysis indicate that the values of GFI (.95), AGFI (.94), CFI (.92), RMR (.05), and RMSEA (.05) demonstrate construct validity. In this study, the Cronbach's alpha value for the Irrational Beliefs in Career Choice Scale was found to be .84. The Cronbach's alpha values for the scale's dimensions were as follows: Perfectionism (Cronbach's alpha = .76), External Control (Cronbach's alpha = .78), Misattributions (Cronbach's alpha = .64), Generalizations (Cronbach's alpha = .70), and Self-Esteem (Cronbach's alpha = .64). When the Cronbach's alpha values of the SIBCC subdimensions were analyzed, they were found to reflect the reliability of the scales, and it was determined that there is no obstacle to their use in the study.

2.4. Data Collection and Analysis

The data were collected from 3rd- and 4th-year high school students. The data were collected during the 2020-2021 academic year, under the supervision of school psychologists and guidance counselors, with permission from the school administration, during class hours. The statistical calculations in this study were performed using IBM SPSS Statistics 25.0. Descriptive statistical methods, which are data analysis techniques, were used to examine personal variables. Difference tests were used to analyze the relationship between the study variables and the variables included in the personal information form. Additionally, t-tests were used to compare inventory scores with demographic variables. Initially, the skewness and kurtosis coefficients were analyzed to determine whether the scales followed a normal distribution (Table 1). Subsequently, an internal consistency analysis was conducted to assess whether the scales were used appropriately. When examining whether group scores differed according to students' personal information variables, the "independent samples t-test" was used to compare two groups for variables with a normal distribution. Additionally, when examining the relationships among academic procrastination, the Career Decision Inventory subscales, and the MSIAOIÖ subscales, the "Pearson Correlation" data analysis method—a parametric test—was used. In the analyses conducted, statistical significance was evaluated at the $p < .05$ level.

Seçer (2015) has argued that examining the "skewness and kurtosis" values associated with the normal distribution may be a valid approach for concluding. In contrast, Tabachnick and Fidell (2013) accept the assumption of normality when skewness and kurtosis are within ± 1.50 . Accordingly, the analysis revealed that the variables follow a normal distribution.

The skewness and kurtosis coefficients for the scales included in the study are presented in Table 1.

Table 1.*Skewness and Kurtosis Values of the Scales*

Scales	N	Skewness	Kurtosis
Academic Procrastination	648	-.479	1.039
Career Decision Inventory	648	.014	-.568
Internal Conflicts	648	-.071	-.924
Lack of Self-Knowledge	648	-.119	-.840
Lack of Vocational Information	648	-.067	-.843
Irrational Career Beliefs	648	-.502	-.472
External Conflicts	648	-.517	-.617
Irrational Career Beliefs	648	.380	.983
Perfectionism	648	-.711	.618
External Locus of Control	648	.501	-.088
False Inferences	648	.185	-.444
Generalizations	648	.320	-.154
Self-Esteem	648	.488	-.452

3. Findings

According to the study findings, the mean academic procrastination score of Generation Z high school students was $M = 55$ ($SD = 9.47$), with scores ranging from 19 to 95. The mean score on the Career Decision Inventory was $M = 102$ ($SD = 26.16$), with a range of 30 to 150. Regarding the Career Decision Inventory subscales, the mean score for internal conflicts was $M = 26$ ($SD = 8.59$; range = 8-40). The mean score for inadequate self-understanding was $M = 23$ ($SD = 7.45$; range = 7-35), while the mean score for lack of career and field knowledge was also $M = 23$ ($SD = 7.12$; range = 7-35). Additionally, the mean scores for irrational beliefs about career choice and external conflicts were $M = 14$ ($SD = 4.05$; range = 4-20) and $M = 14$ ($SD = 4.26$; range = 4-20), respectively.

The mean score of irrational beliefs regarding career choice among Generation Z high school students was $M = 95$ ($SD = 17.96$), with scores ranging from 33 to 165. Regarding the subdimension, the mean score for perfectionism was $M = 34$ ($SD = 6.54$; range = 9-45), while the mean score for external locus of control was $M = 18$ ($SD = 6.60$; range = 8-40). The mean score for the "false conclusions" subdimension was $M = 13$ ($SD = 4.54$; range = 5-25), and the mean score for generalizations was $M = 21$ ($SD = 6.23$; range = 8-40). Finally, the mean self-esteem score was $M = 7$ ($SD = 2.83$; range = 3-15).

The descriptive statistics for the scales used in the study are presented in Table 2.

Table 2.*Descriptive Analysis Results Regarding the Scales Used in the Study*

Scales	N	Min.	Max.	$\bar{X}$	SS
Academic Procrastination	648	19	95	55.53	9.47
Career Decision Inventory	648	30	150	102.92	26.16
Internal Conflicts	648	8	40	26.60	8.59
Lack of Self-Knowledge	648	7	35	23.16	7.45
Lack of Vocational Information	648	7	35	23.34	7.12
Irrational Career Beliefs	648	4	20	14.94	4.05
External Conflicts	648	4	20	14.89	4.26
Irrational Career Beliefs	648	33	165	95.33	17.96
Perfectionism	648	9	45	34.77	6.54
External Locus of Control	648	8	40	18.79	6.60
False Inferences	648	5	25	13.62	4.54
Generalizations	648	8	40	21.16	6.23
Self-Esteem	648	3	15,0	7.00	2.83

According to the analysis results, there was no significant difference in academic procrastination scores among high school Generation Z students by gender ($p > 0.05$). Accordingly, it can be concluded that academic procrastination can occur among students of both genders (Table 3).

Table 3.*Independent Samples t-Test Results for Academic Procrastination Scores by Gender*

Variable	Gender	N	$\bar{X}$	SD	<i>t</i>	<i>df</i>	<i>p</i>
Academic Procrastination	Female	259	54.83	8.36	-1.579	646	.115
	Male	389	55.99	10.13			

According to the analysis results, it was found that the scores for the sub-dimensions of the Career Decision Inventory—specifically, lack of career and field knowledge, insufficient self-awareness, irrational beliefs regarding career choice, internal conflicts, and external conflicts—among Generation Z students in high school did not differ significantly by gender ($p > .05$). Accordingly, the subdimensions of the Career Decision Inventory do not differ by gender (Table 4).

Table 4.*Independent Samples t-Test Results for Career Decision Scores by Gender*

Variables	Gender	N	$\bar{X}$	SD	<i>t</i>	<i>df</i>	<i>p</i>
Career Decision Inventory	Female	259	102.07	25.78	-.677	646	.498
	Male	389	103.49	26.42			
Internal Conflicts	Female	259	26.25	8.82	-.828	646	.408
	Male	389	26.83	8.44			
Lack of Self-Knowledge	Female	259	22.65	7.42	-1.416	646	.157
	Male	389	23.49	7.45			
Lack of Vocational Information	Female	259	22.80	7.16	-1.578	646	.115
	Male	389	23.70	7.08			
Irrational Career Beliefs	Female	259	15.23	3.86	1.472	646	.142
	Male	389	14.75	4.16			
External Conflicts	Female	259	15.14	4.39	1.219	646	.223
	Male	389	14.72	4.17			

In addition, the analysis results indicated that there was no statistically significant difference ($p > .05$) in the perfectionism score—one of the subdimensions of SIBCCS—among high school Generation Z students by gender. In contrast, it was determined that students' SIBCC scores and the scores for the external locus of control, false conclusions, generalization, and self-esteem subdimensions differ significantly by gender ($p < .05$). The results are presented in Table 5.

Table 5.*Independent Samples t-Test Results for SIBCC Scores by Gender*

Variables	Gender	N	$\bar{X}$	SD	<i>t</i>	<i>df</i>	<i>p</i>
Irrational Career Beliefs	Female	259	91.10	17.10	-4.984	646	< .001
	Male	389	98.15	17.99			
Perfectionism	Female	259	34.88	6.56	.347	646	.728
	Male	389	34.69	6.54			
External Locus of Control	Female	259	17.53	6.07	-4.126	646	< .001
	Male	389	19.63	6.81			
False Inferences	Female	259	12.74	4.37	-4.081	646	< .001
	Male	389	14.21	4.56			
Generalizations	Female	259	19.39	5.96	-6.063	646	< .001
	Male	389	22.34	6.12			
Self-Esteem	Female	259	6.57	2.66	-3.202	646	.001
	Male	389	7.28	2.91			

Based on the analysis results, there are no significant differences in academic procrastination scores among Generation Z high school students across grade levels ($p > .05$). Accordingly, it can be concluded that academic procrastination behavior is observed at every grade level (Table 6).

Table 6.*Independent Samples t-Test Results for Academic Procrastination Scores by Grade Level*

Variable	Grade Level	N	$\bar{X}$	SD	<i>t</i>	<i>df</i>	<i>p</i>
Academic Procrastination	11th Grade	330	55.14	9.23	-1.067	646	.286
	12th Grade	318	55.93	9.72			

According to the analysis results, while the scores of Generation Z high school students on the sub-dimensions of the Career Decision Inventory—specifically “internal conflicts” and “SIBCC”—did not differ significantly by grade level ($p > .05$), scores on the sub-dimensions of the Career Decision Inventory—insufficient self-awareness, external conflicts, and lack of career and field knowledge—differ significantly ($p < .05$). In summary, as students’ grade levels increase, their experience and knowledge regarding their chosen profession also increase; therefore, differences may emerge in the scores for the subdimensions of the Career Decision Inventory—lack of career indecision and field knowledge, insufficient self-awareness, and external conflicts (Table 7).

Table 7.*Independent Samples t-Test Results for Career Decision Scores by Grade Level*

Variables	Grade Level	N	$\bar{X}$	SD	<i>t</i>	<i>df</i>	<i>p</i>
Career Decision Inventory	11th Grade	330	105.77	25.08	2.841	646	.005
	12th Grade	318	99.97	26.95			
Internal Conflicts	11th Grade	330	27.12	8.46	1.565	646	.118
	12th Grade	318	26.06	8.70			
Lack of Self-Knowledge	11th Grade	330	23.91	7.17	2.635	646	.009
	12th Grade	318	22.37	7.66			
Lack of Vocational Information	11th Grade	330	24.22	6.93	3.212	646	.001
	12th Grade	318	22.43	7.21			
Irrational Career Beliefs	11th Grade	330	15.19	3.95	1.601	646	.110
	12th Grade	318	14.68	4.14			
External Conflicts	11th Grade	330	15.34	4.14	2.772	646	.006
	12th Grade	318	14.42	4.35			

Analysis results indicate that there are no significant differences in the SIBCC scores and their subdimensions among Generation Z students in high school based on grade level ($p > .05$). Accordingly, it can be concluded that grade level is not a variable that influences SIBCC scores (Table 8).

Table 8.*Independent Samples t-Test Results for SIBCC Scores by Gender*

Variables	Grade Level	N	$\bar{X}$	SD	<i>t</i>	<i>df</i>	<i>p</i>
Irrational Career Beliefs	11th Grade	330	96.04	17.67	1.015	646	.311
	12th Grade	318	94.60	18.26			
Perfectionism	11th Grade	330	35.07	6.28	1.188	646	.235
	12th Grade	318	34.46	6.81			
External Locus of Control	11th Grade	330	18.79	6.75	-.003	646	.998
	12th Grade	318	18.79	6.46			
False Inferences	11th Grade	330	13.59	4.49	-.159	646	.873
	12th Grade	318	13.65	4.59			
Generalizations	11th Grade	330	21.57	6.28	1.713	646	.087
	12th Grade	318	20.73	6.15			
Self-Esteem	11th Grade	330	7.02	2.89	.195	646	.846
	12th Grade	318	6.97	2.77			

3.1 Findings of correlation analysis

In this section of the study, the “Pearson correlation analysis”—a parametric test method—was applied to academic procrastination, the Career Decision Inventory, and irrational beliefs regarding career choice; statistical significance was set at the “ $p < .05$ ” level.

Table 9.*Correlation Analysis Results for the Variables Included in the Study*

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Academic Procrastination	1	-.20**	-.17**	-.18**	-.16**	-.20**	-.14**	.16**	.02	.15**	.12**	.13**	.12**
2. Career Decision Inventory		1	.89**	.86**	.85**	.79**	.68**	-.37**	.07	-.43**	-.28**	-.30**	-.40**
3. Internal Conflicts			1	.68**	.67**	.63**	.53**	-.27**	.05	-.33**	-.21**	-.19**	-.29**
4. Lack of Self-Knowledge				1	.66**	.63**	.46**	-.31**	.07	-.34**	-.24**	-.27**	-.33**
5. Lack of Vocational Information					1	.59**	.46**	-.31**	.03	-.35**	-.23**	-.25**	-.32**
6. Irrational Career Beliefs						1	.56**	-.35**	.13**	-.45**	-.26**	-.33**	-.36**
7. External Conflicts							1	-.32**	.05	-.35**	-.23**	-.26**	-.40**
8. Irrational Career Beliefs								1	.32**	.77**	.80**	.85**	.66**
9. Perfectionism									1	-.18**	.14**	.03	-.16**
10. External Locus of Control										1	.54**	.66**	.64**
11. False Inferences											1	.64**	.50**
12. Generalizations												1	.59**
13. Self-Esteem													1

** $p < .01$, *** $p < .001$

When examining the findings of the Pearson correlation analysis presented in Table 9;

there is a negative relationship between the Academic Procrastination Scale and the Career Decision Inventory among Generation Z students in high school, with a low-level negative correlation ($p < .05$); a low-level positive correlation ($p < .05$) between irrational beliefs regarding career choice; and low-level negative correlations were found between academic procrastination and internal conflict, insufficient self-awareness, lack of career and field knowledge, external conflicts, and irrational beliefs regarding career choice ($p < .05$). Additionally, a low-level positive correlation was found between academic procrastination and false conclusions, external locus of control, self-esteem, and generalizations ($p < .05$).

In addition, a moderate negative correlation ($p < .05$) was found between the Career Decision Inventory and irrational beliefs regarding career choice, while a high positive correlation ($p < .05$) was found between internal conflicts, insufficient self-awareness, lack of career field knowledge, and irrational beliefs regarding career choice. A moderate positive correlation was found among external conflicts ($p < .05$). A moderate negative correlation was found between external locus of control, generalizations, and self-esteem ($p < .05$). A low negative correlation was found between Generation Z high school students' scores on the Career Decision Inventory and their tendency toward false inferences ($p < .05$).

Another study finding was a moderate positive correlation ($p < .05$) between irrational beliefs about career choice and perfectionism and self-esteem. In contrast, a high positive correlation ($p < .05$) was observed between external locus of control, false inferences, and generalizations.

4. Discussion and Conclusion

It was determined that there was no difference in the group mean scores for academic procrastination among Generation Z students in high school based on gender. This finding indicates that academic procrastination can be observed across all grade levels. Similarly, Akkaya (2007), who examined the extent to which gender predicts academic procrastination behavior among education faculty students, found that gender is a significant predictor

for female students. This suggests that academic procrastination manifests similarly among female and male students in the high school sample of this study. Furthermore, given that adolescence is a challenging period for both genders, this may explain why academic procrastination shows no significant gender differences.

According to another finding from the study, no significant differences in the group mean scores on the Career Decision Inventory and its subdimensions were found among Generation Z high school students, by gender. Studies with results similar to those of this research are also found in the literature (Çınar, 2011; Söner, 2021; Watson and Stead, 1994). However, domestic and international studies also report differing results. There are also studies examining findings that indicate a low correlation between gender and career decision-making (Yaman, 2014), that female students exhibit lower career indecision compared to males (Öztemel, 2012), and that career indecision among female students is higher than among males (Aydemir, 2017; Bacanlı, 2012; Yaman, 2014). The reasons for the differences in research data are thought to stem from variations in the dynamic structure of the studied group, the time of the study, socio-economic conditions, the residential areas where participants live, and socio-cultural structures.

According to another finding of the study, while there was no significant difference in the group mean scores for the perfectionism subdimensions of the SIBCC among Generation Z high school students based on gender, significant differences were found in the group mean scores for the external locus of control, erroneous generalizations, judgments, and self-esteem subdimensions; specifically, male students scored significantly higher than female students on these subdimensions. Similar studies supporting this research finding are available in the literature. It has been found that female students have lower levels of irrational beliefs about careers than male students (Gati & Noa, 2001; Owen & Çapan, 2017). In contrast, Mahadevan (2002) found no gender differences in career beliefs. In Savoly and Owen's (2005) study, the finding that women have higher levels of irrational beliefs regarding career choice is documented in the literature. This suggests that perfectionism is not gender-specific, but that certain cognitive distortions and self-perception dimensions need to be addressed in a gender-sensitive manner.

No difference in group mean scores for academic procrastination was found across grade levels. In a separate study, Yılmaz (2016) found that academic procrastination differed significantly by grade level, perceived success, and school type. It is believed that the differing results may be attributed to variables such as the year the study was conducted, the province, and the socio-economic level.

When examining the dimensions of the Career Decision Inventory by grade level, it was found that while group averages for irrational beliefs regarding career choice and internal conflicts did not differ, group average scores for the Career Decision Inventory and its sub-dimensions, specifically insufficient self-knowledge, lack of career field knowledge, and external conflicts, did differ. Similar studies supporting these findings are available in the literature (Watson and Stead, 1994; Yazıcıoğlu, 2008). According to these results, it has been suggested that the decrease in career indecision with increasing grade level may stem from individuals in this age group coming to better understand themselves over time and developing career maturity by acquiring information about careers (Kırdök, 2010). Similarly, Siyez (2012) emphasized that the 14–18 age period represents a “crystallization of career choice” phase in which the individual becomes aware of their own interests, abilities, and values, gains a better understanding of themselves, and makes a decision regarding their career. Within this framework, it is thought that there may be a relationship between students' career maturity and their career commitment.

Another finding indicates that there were no significant differences in the group mean scores for the SIBCC and its subscales across grade levels. The literature supports this study (Yılmaz, 2019). In Akkoç's (2012) study, however, the SIBCC scores of students in their first year of high school were significantly higher than those of students in their second and third years. In this study, the lack of differences in SIBCC and its sub-dimensions based on group mean scores may be attributed to the study group itself or to students in this age group being indecisive about their career-related decision-making maturity.

Another result of the study concerns the correlation levels of the variables examined. A negative, low-level correlation was found between the Academic Procrastination Scale and the Career Decision Inventory among high school students. In contrast, a positive, low-level correlation ($p < .05$) was found for irrational beliefs in career choice. Similarly, Uzun Özer ve Topkaya (2011) emphasized that difficulty in decision-making is a cause of academic procrastination. Based on this finding, it can be said that students' experience of academic procrastination is related to the career decision-making process.

A low negative correlation was found between academic procrastination and internal conflicts, lack of career indecision knowledge, insufficient self-awareness, irrational beliefs about career choice, and external conflicts. At the same time, a low positive correlation was found between academic procrastination and external locus of control, incorrect inferences, generalizations, and self-esteem. Although similar findings have not been reported in the literature, the presence of these low-level correlations suggests that they are specific to the study group in this research.

In addition, a moderate negative correlation was found between the Career Decision Inventory and irrational beliefs regarding career choice; a high positive correlation was found between internal conflicts, insufficient self-awareness, and a lack of knowledge about career fields, and irrational beliefs regarding career choice; a moderate positive correlation was found among external conflicts, and a moderate negative correlation was found between external locus of control, generalizations, and self-esteem. When examining the relationship between Generation

Z high school students and the Career Decision Inventory, a low negative correlation was found. According to another study finding, a moderate positive correlation was found between irrational beliefs about career choice and perfectionism, and between perfectionism and self-esteem. In contrast, a high positive correlation was found with external locus of control, false inferences, and generalizations. In a similar study, Şendoğan (2020) found that whether students voluntarily chose their department or were assigned to one resulted in a significant difference in academic procrastination scores. In a similar study, Çoban and Hamamcı (2007) found a relationship between career indecision and irrational beliefs. Bacanlı (2012), in a study with high school students, noted that the sub-dimension of external locus of control within irrational beliefs is an important predictor of career decision-making.

5. Conclusion

It was determined that there was no difference in the group mean scores for academic procrastination among Generation Z students in high school based on gender. This finding indicates that academic procrastination can be observed across all grade levels. According to another finding from the study, no significant differences were found in the group mean scores on the Career Decision Inventory and its subdimensions between Generation Z high school students, based on gender. According to another finding of the study, while there was no significant difference in the group mean scores for the perfectionism subdimensions of the SIBCC among Generation Z high school students based on gender, significant differences were found in the group mean scores for the external locus of control, erroneous generalizations, judgments, and self-esteem subdimensions; specifically, male students scored significantly higher than female students on these subdimensions. When examining the dimensions of the Career Decision Inventory by grade level, it was found that while group averages for irrational beliefs regarding career choice and internal conflicts did not differ, group average scores for the Career Decision Inventory and its sub-dimensions, specifically insufficient self-knowledge, lack of career field knowledge, and external conflicts, did differ.

6. Recommendations

1. By conducting empirical studies on Generation Z high school students regarding career decision-making, academic procrastination, and irrational beliefs, group counseling plans for educational purposes can be developed.

2. Among the sub-dimensions of the SIBCC —external locus of control, faulty generalizations, judgments, and self-esteem—it was found that male students scored significantly higher than female students on these sub-dimensions. Accordingly, it is recommended that psychological counseling experts consider irrational beliefs about career choice when working with male students. Additionally, group guidance programs addressing irrational beliefs regarding career choice can be implemented for both genders.

3. School counselors can provide training to school administrators, classroom teachers, and students on career uncertainty and irrational beliefs.

4. Informative counseling can be provided to students and parents regarding the disadvantages of academic deferment on school performance. Additionally, the causes and consequences of academic deferment can be explained to students, and group guidance programs can be established.

6. Declarations

All articles must include a "Declaration" section with the following headings. Under this heading, the points that authors should pay attention to are stated.

Ethics Approval and Consent to Participation. This study was approved by the Ethics Committee of AdiyamanUniversity (Approval No: 2021/160, dated 02.12.2021). All procedures were conducted in accordance with the ethical standards of the institutional and national research committees, as well as the principles outlined in the Declaration of Helsinki. Participation in the study was entirely voluntary, and informed consent was obtained from all participants before data collection. As the participants were middle school students, permission was obtained from the relevant school administrations and parents/legal guardians before administering the questionnaires.

Approval for Publication. All authors have read and approved the final version of the manuscript and consent to its publication.

Availability of Data and Materials. The data supporting this study's findings are available from the corresponding author upon reasonable request.

Competing Interests. The authors declare that they have no competing interests.

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Predicting Emotion Regulation Difficulties: The Roles of Childhood Trauma, Self-Compassion, and Rumination

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Abstract

The present study aimed to examine the relationships among childhood traumatic experiences, self-compassion, rumination, and difficulties in emotion regulation in adults. The sample consisted of 426 adults (278 women and 148 men). Data were collected using the Childhood Adverse Experiences Scale, the Self-Compassion Scale, the Ruminative Thought Style Questionnaire, and the Difficulties in Emotion Regulation Scale-8. Independent-samples t-tests, Pearson correlation analyses, and multiple linear regression analyses were conducted. The results indicated that childhood traumatic experiences, self-compassion, and difficulties in emotion regulation did not differ significantly by gender, whereas rumination showed a significant gender difference. Correlation analyses revealed that childhood traumatic experiences were positively associated with rumination and difficulties in emotion regulation, and negatively associated with self-compassion. Additionally, self-compassion was negatively associated with rumination and difficulties in emotion regulation, whereas rumination was positively associated with difficulties in emotion regulation. Finally, childhood traumatic experiences, self-compassion, and rumination significantly predicted difficulties in emotion regulation and explained 51% of the total variance. These findings highlight the combined role of early life experiences, cognitive processes, and self-related attitudes in understanding emotion regulation difficulties.

Keywords:

Emotion regulation difficulties, childhood trauma, childhood traumatic experiences, self-compassion, rumination

1. Introduction

Emotions are among the fundamental psychological processes that guide human behavior and give meaning to individuals' interactions with their environment. People often rely on their emotions when evaluating past experiences, forming expectations about the future, establishing social relationships, and determining life goals. Consequently, emotions have been examined from various perspectives throughout history in disciplines that place human beings at their center, such as art, philosophy, literature, and psychology. Emotions constitute a fundamental mechanism that shapes individuals' perceptions of themselves and others and enables them to make

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sense of life experiences. The ability to understand, express, and function effectively in the presence of emotions is considered an important indicator of psychological adjustment.

The process of interpreting, expressing, and directing behavior through emotions is called emotion regulation. According to Schachter and Singer (1962), emotions emerge through the interaction between physiological arousal and cognitive appraisal. Gross (1998) defined emotion regulation as individuals' awareness of their emotional responses and their efforts to influence or modify these responses, whereas Russell (2003) conceptualized this process as a contextual and dynamic phenomenon. The emotion regulation process can enhance individuals' self-regulatory capacities in both everyday life and challenging circumstances, thereby improving quality of life and serving a protective function in coping with adverse life events. Conversely, difficulties in understanding, expressing, or adaptively responding to emotions may result in emotion regulation difficulties.

Emotion regulation difficulties are considered a significant risk factor that may negatively affect individuals' physiological, psychological, and social functioning (Cole et al., 1994). Aldao et al. (2010) and Berenbaum et al. (2003) suggested that psychopathological symptoms are closely associated with deficiencies in emotion regulation processes. The experience of emotions in an intense, prolonged, and uncontrolled manner may contribute to a range of adverse outcomes, including anxiety, depression, suicidal behaviors, and alcohol use problems (Dvorak et al., 2014; McLaughlin et al., 2011; Neacsiu et al., 2018). In this context, the investigation of emotion regulation difficulties has emerged as an important area of research in mental health.

Understanding emotion regulation difficulties requires consideration of individuals' past experiences, cognitive processes, and attitudes toward themselves. In particular, traumatic experiences during childhood may have lasting effects on cognitive, social, and emotional development. Childhood traumatic experiences encompass physical, sexual, and emotional abuse as well as neglect (WHO, 2024) and may lead to disruptions in emotional and impulse control systems (Van der Kolk, 2007). Neurobiological evidence indicates that individuals exposed to childhood trauma exhibit differences in brain regions associated with emotional processing (McLaughlin et al., 2015). These findings highlight the critical role of early adverse experiences in shaping emotion regulation processes.

However, emotion regulation is not limited to early life experiences but is also closely associated with cognitive processes that continue throughout adulthood (see Koş Yalvaç & Gaynor, 2021). Rumination is a cognitive process characterized by repetitive, negative, and uncontrollable thoughts about one's experiences and circumstances (Brinker & Dozois, 2009). This ruminative thinking style may adversely affect emotion regulation processes by increasing both the duration and intensity of negative emotions (Nolen-Hoeksema, 1991). Another important factor associated with emotion regulation is self-compassion, which reflects individuals' attitudes toward themselves. Self-compassion involves responding to one's own difficulties and failures with understanding, kindness, and support (Neff, 2003). In this sense, self-compassion may contribute to more balanced emotion regulation by helping individuals respond to stressful situations in a more adaptive way (Diedrich et al., 2014; Inwood & Ferrari, 2018). Leary et al. (2007) emphasized that self-compassion plays an important role in regulating emotional responses to daily stressors, particularly by reducing negative affect, such as shame, guilt, and feelings of worthlessness.

The emergence of emotion regulation difficulties cannot be explained solely by individuals' current emotional experiences. Rather, early life experiences, cognitive functioning, and self-related attitudes are thought to shape emotion regulation processes jointly. Therefore, in addition to early adverse experiences, contemporary cognitive and emotional processes are also believed to play a significant role in the development of emotion regulation difficulties. Individuals who have been exposed to traumatic experiences during childhood may develop more self-critical attitudes and engage in repetitive thinking about negative experiences. In contrast, self-compassion may facilitate a more balanced and adaptive response to challenging life events, whereas rumination may contribute to the maintenance of negative emotions and thoughts. Accordingly, examining childhood traumatic experiences, self-compassion, and rumination together may provide a more comprehensive understanding of emotion regulation difficulties.

Previous studies have examined the relationships between difficulties in emotion regulation and childhood traumatic experiences (Dvir et al., 2014; Weissman et al., 2019), self-compassion (Finlay-Jones et al., 2015; Inwood & Ferrari, 2018), and rumination (Aldao et al., 2010; Mansueto et al., 2022) separately. In the Turkish literature, among university students, the mediating role of self-compassion in the relationship between childhood traumatic experiences and difficulties in emotion regulation has been investigated (Ünal, 2021). However, no study was identified that examines childhood traumatic experiences, self-compassion, and rumination together in predicting difficulties in emotion regulation. This suggests that emotion regulation difficulties have not yet been sufficiently examined within a holistic framework that integrates early adverse experiences, self-related attitudes, and cognitive processes. Accordingly, the present study aims to examine the relationships among childhood traumatic experiences, rumination, self-compassion, and difficulties in emotion regulation in adults. It is expected that this study will contribute to the literature by addressing these variables together within a broader cognitive and emotional framework and by providing both theoretical and practical implications for prevention and intervention studies aimed at improving emotion regulation skills. In this study, the following research questions were addressed:

1. Do childhood traumatic experiences, self-compassion, rumination, and difficulties in emotion regulation scores differ significantly according to gender?
2. Is there a significant relationship among childhood traumatic experiences, self-compassion, rumination, and difficulties in emotion regulation scores?
3. Do childhood traumatic experiences, self-compassion, and rumination significantly predict difficulties in emotion regulation?

2. Methodology

2.1. Research Model

The effects of childhood traumatic experiences, self-compassion, and rumination on difficulties in emotion regulation in adults were examined. In this context, a cross-sectional correlational design was employed to examine the relationships among the variables. Correlational research designs are research models in which the relationships between two or more variables are examined without any intervention (Büyüköztürk et al., 2015). Given the study's cross-sectional design, the findings indicate relationships among the variables but do not allow for causal conclusions.

2.2. Research Sample

This study included 426 participants. The participants' ages ranged between 18 and 45 years, with a mean age of 27.32 (SD = 8.00). In classifying participants' ages, Levinson's (1986) theory of life structure served as the basis. According to Levinson (1986), early adulthood consists of the early adult transition (17–22 years), entering the adult world (22–28 years), the age 30 transition (28–33 years), and the culminating life structure for early adulthood (33–40 years). In the present study, age groups were formed based on these developmental periods. Of the participants, 278 were women (65.3%), and 148 were men (34.7%). Convenience sampling was used in the study. Convenience sampling is a frequently preferred method in behavioral science research. In this method, the researcher includes participants who are easily accessible, willing to participate in the study, and readily available (Gravetter & Forzano, 2012). Given that convenience sampling is a non-probability sampling method, the sample may be susceptible to systematic bias, and the participants may not adequately represent the target population. Consequently, the generalizability of the findings to other samples and populations should be interpreted with caution.

2.3. Data Collection Tools and Procedure

Data were collected online via Google Forms. Before participation, individuals were informed about the purpose of the study, the voluntary nature of participation, the confidentiality of their responses, and their right to withdraw from the study at any time. Participants who provided informed consent completed the sociodemographic information form and the study's measurement instruments.

2.3.1. Childhood Adverse Experiences Scale

The Childhood Adverse Experiences Scale, whose Turkish validity and reliability study was conducted by Gündüz et al. (2018), was originally developed in 1997 by the CDC and Permanente (Gündüz et al., 2018). The Turkish form consists of 10 items that question whether the individual experienced emotional abuse, physical abuse, sexual abuse, maltreatment, and emotional or physical neglect in family life before the age of 18. The scale does not have a cut-off score and is scored in a yes/no format. Total scores on the Childhood Adverse Experiences Scale range from 0 to 10. The scores obtained from the scale indicate the level of individuals' childhood traumatic experiences. In the Turkish adaptation study, Cronbach's alpha was .742. In the present study, the Cronbach's alpha reliability coefficient for the scale's total score was .70.

2.3.2. Self-Compassion Scale

The Self-Compassion Scale, originally developed by Neff (2003), was adapted into Turkish by Deniz, Kesici, and Sümer (2008). The scale consists of 24 items, 11 of which are reverse-coded. Items are rated on a 5-point Likert scale ranging from rarely (1) to almost always (5). While the original scale consists of six subscales, the adapted Turkish version has a single-factor structure. The Turkish adaptation of the Self-Compassion Scale is an appropriate measurement tool for identifying individuals who develop negative self-feelings and are unable to cultivate self-understanding and tolerance. The linguistic equivalence of the scale was supported by a high correlation between the Turkish and English forms ($r = .96$). In the Turkish adaptation study, the Cronbach's alpha internal consistency coefficient was found to be .89, and the reliability level of the scale was considered adequate (Deniz et al., 2008). In the present study, the Cronbach's alpha reliability coefficient for the scale was .92.

2.3.3. Ruminative Thought Style Questionnaire

The Ruminative Thought Style Questionnaire was developed in 2009 by J. K. Brinker and D. J. A. Dozois, and its Turkish adaptation was conducted by Karatepe (2010). The scale measures a general tendency toward ruminative thinking rather than situational thought patterns. It consists of 20 items and is a 7-point Likert-type measurement tool. The items are rated on a scale from 1 = not at all to 7 = very well. Although the scale lacks a cut-off score, the scores obtained indicate the severity of an individual's ruminative thinking tendency. The scale has a single-factor structure. Higher scores on the scale indicate higher levels of ruminative thinking. In the Turkish

adaptation study, the Cronbach's alpha internal consistency coefficient was reported as .907. Item-total score correlations ranged between .474 and .699, and the 30-day test-retest reliability coefficient was found to be .84 (Karatepe, 2010). In the present study, the Cronbach's alpha reliability coefficient for the scale was .96.

2.3.4. Difficulties in Emotion Regulation Scale-8 (DERS-8)

The Difficulties in Emotion Regulation Scale-8 was developed by Penner et al. (2022) and adapted into Turkish by Ekşi and Erik (2023). The scale is a short-form measurement tool designed to assess individuals' difficulties with emotion regulation. It consists of 8 items and comprises four subdimensions: goals, impulse, non-acceptance, and strategies. In the scale evaluation, the total score is considered rather than the scores from the subdimensions. The scale was adapted by being administered to adults aged between 18 and 57 years. In the Turkish adaptation study, the Cronbach's alpha internal consistency coefficient was reported as .87. In the present study, the Cronbach's alpha internal consistency coefficient of the scale was found to be .89.

2.4. Data Analysis

In this study, data collected via Google Forms were analyzed using SPSS 27 (Statistical Package for the Social Sciences) on a computer. After the data collected via Google Forms were transferred to SPSS 27, a univariate outlier analysis was conducted, and the scores were converted to standardized Z scores. In the dataset consisting of 433 participants, 7 participants whose scores fell outside the range of +3.00 to -3.00 were excluded from the analysis, leaving 426 participants. Within the scope of the study, the normality of the scores obtained from the scales was examined using normality tests, skewness coefficients, and histogram graphs. According to the results of the Kolmogorov-Smirnov test, childhood traumatic experiences ($p = .001$), rumination ($p = .027$), self-compassion ($p = .049$), and difficulties in emotion regulation ($p = .001$) scores did not show a normal distribution ($p < .05$). Although the Kolmogorov-Smirnov test results were significant, skewness values fell within the acceptable range (± 2), and histogram plots indicated approximate normality. Therefore, parametric analyses were considered appropriate. However, the skewness coefficients were 1.365 for childhood traumatic experiences, -.213 for rumination, -.154 for self-compassion, and .621 for difficulties in emotion regulation. Since the skewness values ranged from -2 to +2, it can be concluded that the scores did not deviate significantly from normality. Examination of the histogram graphs also indicated that the data for the variables followed a normal distribution. Because the variables showed normal distributions, it was decided to use parametric tests. Following the normality assessment, descriptive statistics related to the scores obtained from the data collection instruments were first examined. Whether participants' scores on the research variables differed significantly by gender was analyzed using an independent-samples t-test. The relationships among the variables were determined using Pearson correlation analysis. The variables of childhood traumatic experiences, rumination, and self-compassion, which were found to have significant relationships with scores on the Difficulties in Emotion Regulation Scale, were included in the analysis using a standard (enter) multiple regression. Through multiple regression analysis, the predictive levels of childhood traumatic experiences, rumination, and self-compassion on difficulties in emotion regulation were determined. In multiple linear regression analysis, one of the methods used in this study, the values of the predicted variable are estimated based on two or more predictor variables (Büyüköztürk, 2013). Multiple linear regression analysis has certain assumptions. First, it was observed that the skewness coefficients (SC) and kurtosis coefficients (KC) of the variables were within acceptable limits (± 2), and that the mean, median, and mode values of the distributions were quite close to each other. This indicates that the distributions did not show excessive deviation from normality and that the assumption of univariate normality was met. The multivariate normality and linearity of the variables were also examined. For this purpose, scatterplots for standardized residuals and standardized predicted values, as well as histograms and normal distribution curves, were generated (Büyüköztürk, 2013). When the graphs were examined, it was observed that the points tended to cluster along an axis, indicating that the assumption of linearity was met and that the histograms and normal distribution curves for the predictor variables were close to normal. Another important assumption of multiple linear regression analysis is the absence of multicollinearity. For this purpose, the bivariate correlations among the variables were first examined using Pearson correlation analysis. If the correlations among variables are .90 or higher, a multicollinearity problem is considered to exist (Tabachnick & Fidell, 2007). In this study, when the relationships among the variables were examined using Pearson's correlation analysis, no multicollinearity was observed. A tolerance value ($1 - R^2$) below .20 and a variance inflation factor (VIF) above 10 indicate multicollinearity among variables (Büyüköztürk, 2013; Çokluk, Şekercioğlu, & Büyüköztürk, 2012). In this study, the tolerance and VIF values were found to be .706 and 1.41 for self-compassion; .733 and 1.36 for rumination; and .920 and 1.08 for childhood traumatic experiences.

3. Findings

This section presents the findings obtained from the statistical analyses conducted in line with the research objectives. First, descriptive statistics related to the study variables are reported, followed by analyses examining gender differences. Subsequently, the relationships among childhood traumatic experiences, self-compassion, rumination, and difficulties in emotion regulation are presented. Finally, the predictive roles of childhood

traumatic experiences, self-compassion, and rumination on difficulties in emotion regulation are examined through multiple regression analysis.

The descriptive statistics for the variables of childhood traumatic experiences, rumination, self-compassion, and difficulties in emotion regulation are presented in Table 1.

Table 1.

Descriptive statistics for childhood traumatic experiences, rumination, self-compassion, and difficulties in emotion regulation

Variable	n	Min	Max	M
Childhood Traumatic Experiences	426	0.00	6.00	1.20
Rumination	426	20.00	140.00	89.36
Self-Compassion	426	28.00	120.00	78.21
Difficulties in Emotion Regulation	426	8.00	40.00	18.96

When Table 1 is examined, it is seen that the mean score obtained from the Childhood Adverse Experiences Scale is ($M = 1.20$; $SD = 1.65$), the mean score obtained from the Ruminative Thought Style Questionnaire is ($M = 89.36$; $SD = 27.83$), the mean score obtained from the Self-Compassion Scale is ($M = 78.21$; $SD = 16.75$), and the mean score obtained from the Difficulties in Emotion Regulation Scale is ($M = 18.96$; $SD = 7.16$).

To answer the study's first research question, an Independent Samples t-test was conducted. Table 2 presents the results of the Independent Samples t-test examining whether childhood traumatic experiences, rumination, self-compassion, and difficulties in emotion regulation differ by gender.

Table 2.

Results of the independent samples t-test examining differences in childhood traumatic experiences, rumination, self-compassion, and difficulties in emotion regulation by gender

	Group	n	M	SD	df	t	p
Childhood Traumatic Experiences	Women	278	1.19	1.66	424	-.0183	.913
	Men	148	1.21	1.62			
Rumination	Women	278	93.30	25.34	424	11.34	.001*
	Men	148	81.95	30.72			
Self-Compassion	Women	278	77.25	16.44	424	-2.771	.104
	Men	148	80.02	17.24			
Difficulties in Emotion Regulation	Women	278	19.32	6.99	424	1.033	.157
	Men	148	18.29	7.45			

* $p < .05$

When Table 2 is examined, it is observed that childhood traumatic experiences ($t(424) = -0.183$, $p > .05$), self-compassion ($t(424) = -2.771$, $p > .05$), and difficulties in emotion regulation ($t(424) = 1.033$, $p > .05$) scores do not show a significant difference according to gender. However, rumination scores ($t(424) = 11.34$, $p < .05$) show a significant difference in favor of women. It was determined that women's rumination levels are higher than those of men.

To answer the second research question, a Pearson correlation analysis was conducted. Table 3 presents the results of the Pearson correlation analysis examining the relationships among childhood traumatic experiences, rumination, self-compassion, and difficulties in emotion regulation.

Table 3.

Results of the Pearson correlation analysis among childhood traumatic experiences, rumination, self-compassion, and difficulties in emotion regulation

	Childhood Traumatic Experiences	Rumination	Self-Compassion	Difficulties in Emotion Regulation
Childhood Traumatic Experiences	-			
Rumination	.199**	-		
Self-Compassion	-.274**	-.513**	-	
Difficulties in Emotion Regulation	.291**	.569**	-.663**	-

* $p < .05$, ** $p < .01$

When Table 3 is examined, it is seen that there is a low-level significant positive relationship between childhood traumatic experiences and rumination ($r = .199$, $p < .05$), a low-level significant negative relationship between childhood traumatic experiences and self-compassion ($r = -.274$, $p < .05$), and a low-level significant positive relationship between childhood traumatic experiences and difficulties in emotion regulation ($r = .291$, $p < .05$). There is a moderate-level significant negative relationship between self-compassion and rumination ($r = -.513$, $p < .05$). A moderate-level positive relationship is found between difficulties in emotion regulation and rumination ($r = .569$, $p < .05$). Additionally, there is a moderate-level significant negative relationship between difficulties in emotion regulation and self-compassion ($r = -.663$, $p < .05$).

To answer the third research question, multiple regression analysis was conducted. The results regarding the prediction of difficulties in emotion regulation by childhood traumatic experiences, rumination, and self-compassion are presented in Table 4.

Table 4.

Results of the multiple regression analysis for the prediction of difficulties in emotion regulation

Variable	B	SE	β	t	p	Partial	Part
Constant	27.55	1.99	-	13.80	.000	-	-
Self-Compassion	-.205	.017	-.480	-11.95	.000	-.503	-.404
Rumination	.078	.010	.302	7.66	.000	.350	.259
Childhood Traumatic Experiences	.428	.153	.099	2.80	.005	.135	.095

$R = .720$ $R^2 = .519$ $F_{(3,425)} = 151.842$ $p = .000$

When Table 4 is examined, the variables of self-compassion, rumination, and childhood traumatic experiences, which were found to have significant relationships with difficulties in emotion regulation, were included in the regression analysis. Self-compassion, rumination, and childhood traumatic experiences explain 51% of the total variance in difficulties in emotion regulation. The multiple regression analysis indicated that the model was significant ($F_{(3,425)} = 151.842$, $p < .001$). Self-compassion is the strongest and most negative predictor of difficulties in emotion regulation ($\beta = -.480$). Rumination is a moderate positive predictor ($\beta = .302$). Childhood traumatic experiences have a small but significant positive effect ($\beta = .099$).

4. Discussion and Conclusion

According to the study findings, childhood traumatic experiences, self-compassion, and difficulties in emotion regulation did not differ significantly by gender. In contrast, female participants reported higher levels of rumination than male participants. The absence of gender differences in childhood traumatic experiences suggests that male and female participants were exposed to similar levels of traumatic experiences during childhood. This finding is consistent with the results reported by Alsancak-Akbulut and Barışkin (2020), Çavuşoğlu (2020), Hafizoğlu (2025), and Ünal (2021). Nevertheless, previous studies have documented gender differences in specific dimensions of childhood trauma (Adjorlolo et al., 2017; Ballard et al., 2015; Pruessner et al., 2019; Saunders & Adams, 2014; Scher et al., 2004; Tolin & Foa, 2006). These differences appear to emerge primarily in particular forms of trauma, such as physical, emotional, or sexual abuse. In contrast, gender differences tend to be less pronounced when childhood trauma is assessed using overall trauma scores. Therefore, the fact that childhood traumatic experiences were evaluated using a total score in the present study may partly explain why no significant gender differences were observed.

The findings also indicated that self-compassion did not differ significantly by gender. This result is consistent with the findings of Çetin (2017), Kanan Çelebi (2025), Neff and Pommier (2013), and Neff and McGehee (2010). Although some studies have reported lower levels of self-compassion among women compared to men (Gür, 2021; Neff et al., 2005), the present finding suggests that self-compassion is not merely a gender-based characteristic. In line with Hyde's (2005) gender similarities hypothesis, psychological similarities between women and men tend to outweigh their differences. From this perspective, self-compassion may be understood as a construct shaped more by individuals' life experiences, interpersonal relationships, and psychological resources than by gender itself.

The study further revealed that women reported significantly higher levels of rumination than men. This finding is consistent with previous research conducted by Andò et al. (2020), Johnson and Whisman (2013), Tamres et al. (2002), Whisman et al. (2020), as well as studies conducted in Türkiye by Kocakale (2024) and Yaycı Koçak (2025). The literature suggests that women are more likely to employ inward-focused coping strategies in response to negative life events and tend to focus more extensively on their emotional experiences (Nolen-Hoeksema & Jackson, 2001). In addition, gender norms may contribute to this difference by encouraging women to attend to and express their emotions. In contrast, men are often socialized to adopt more action-oriented coping strategies. Accordingly, the present finding supports the view that rumination is one of the psychological constructs that demonstrates the most consistent gender differences across studies.

The findings also indicated that difficulties in emotion regulation did not differ significantly by gender. This result is consistent with previous studies conducted by Ballarotto et al. (2024), Konuk (2021), Şahan and Şahin (2020), and Yılmaz and Cenkseven Önder (2020). Although some studies have reported that women experience greater difficulties in emotion regulation than men (Brindle et al., 2019; Zimmermann & Iwanski, 2014), these differences appear to emerge primarily in specific dimensions of emotion regulation rather than in overall levels of difficulty. Thus, while women and men may encounter challenges in different aspects of the emotion regulation process, these differences may not necessarily be reflected in their overall emotion regulation difficulty scores. The present finding further suggests that difficulties in emotion regulation may be more closely associated with individual experiences and psychological processes than with gender itself.

The correlation analyses conducted to examine the relationships among the study variables revealed significant associations among childhood traumatic experiences, self-compassion, rumination, and difficulties in emotion regulation. A low positive correlation was found between childhood traumatic experiences and rumination. This finding is consistent with previous studies indicating that individuals exposed to traumatic experiences during childhood are more likely to engage in repetitive thinking about negative experiences (Arar, 2019; Hovens et al., 2016; Mansueto et al., 2021; Uludağ, 2023). Traumatic experiences have been suggested to increase individuals' perceptions of their environment as threatening and to intensify cognitive focus on adverse experiences (Briere & Elliott, 1994). As a result, individuals may become more inclined to engage in ruminative thought processes to understand and gain control over their negative experiences.

A low negative correlation was found between childhood traumatic experiences and self-compassion. This result suggests that adverse experiences during childhood may influence individuals' attitudes toward themselves. Previous studies have indicated that childhood trauma negatively affects self-perceptions, increases self-criticism, and reduces levels of self-compassion (Barlow et al., 2017; Gürbüz, 2025; Hou et al., 2020; Játiva & Cerezo, 2014; Reffi et al., 2018; Ünal, 2021). Furthermore, Tanaka et al. (2011) reported that emotional abuse, physical abuse, and emotional neglect were particularly strongly associated with lower levels of self-compassion. Experiences of abuse and neglect may contribute to the development of negative self-evaluations, leading individuals to perceive themselves as inadequate or unworthy and consequently develop lower levels of self-compassion.

The findings also revealed a low positive correlation between childhood traumatic experiences and difficulties in emotion regulation. This result is consistent with studies suggesting that traumatic experiences may have long-term effects on individuals' emotional development (Burns et al., 2010; Marusak et al., 2015; Ünal, 2024; Ünal, 2021; Vettese et al., 2011). Traumatic experiences during childhood may disrupt the development of emotion regulation abilities, making it more difficult for individuals to recognize, understand, and manage their emotions later in life.

A moderate negative correlation was found between self-compassion and rumination. This finding is consistent with previous research demonstrating that higher levels of self-compassion are associated with lower levels of ruminative thinking (Butz & Stahlberg, 2018; Kılcalı, 2015; Neff & Vonk, 2009; Türk, 2022). Individuals with higher levels of self-compassion tend to approach themselves more kindly in the face of negative experiences and to evaluate them in a more balanced manner. Conversely, lower levels of self-compassion may contribute to increased focus on negative thoughts and emotions, thereby maintaining ruminative cognitive processes.

A moderate positive correlation was identified between difficulties in emotion regulation and rumination. This finding suggests that difficulties in emotion regulation are associated with repetitive and maladaptive patterns of thinking. The literature indicates that rumination serves as an important cognitive mechanism in maintaining negative emotions and may hinder effective emotion regulation (Jarukasemthawee & Pisitsungkagarn, 2021; Kaya, 2025; Mansueto et al., 2022; Martino et al., 2017; Yalvaç & Gaynor, 2021). Accordingly, individuals who struggle to regulate their emotions effectively may be more likely to become preoccupied with negative thoughts.

A moderate negative correlation was found between difficulties in emotion regulation and self-compassion. This result highlights self-compassion as a protective psychological resource that supports emotional adjustment. Individuals with higher levels of self-compassion are reported to manage their emotions in a more accepting and flexible manner when faced with challenging life events and therefore experience fewer difficulties in emotion regulation (Finlay-Jones et al., 2015; Inwood & Ferrari, 2018; Kaya, 2025; Ünal, 2021; Vettese et al., 2011). The present finding further underscores the importance of self-compassion as a protective factor in emotion regulation processes.

Overall, the correlational findings indicate that childhood traumatic experiences are associated with self-compassion, rumination, and difficulties in emotion regulation. However, the stronger associations observed between self-compassion, rumination, and difficulties in emotion regulation suggest that individuals' current cognitive and emotional processes may play a particularly important role in emotion regulation. These findings highlight the importance of considering both early life experiences and current psychological processes in understanding difficulties in emotion regulation.

The regression analyses further demonstrated that childhood traumatic experiences, rumination, and self-compassion jointly and significantly predicted difficulties in emotion regulation. These findings suggest that difficulties in emotion regulation cannot be explained solely by early-life experiences; rather, individuals' current cognitive and emotional processes also play a substantial role in their development and maintenance. The finding that self-compassion emerged as the strongest predictor of difficulties in emotion regulation highlights its protective function in emotional functioning. Previous studies have similarly demonstrated that self-compassion predicts difficulties in emotion regulation (Çelik, 2022; Jones et al., 2015; Yılmaz & Cenkseven-Önder, 2020). Self-compassion facilitates a more understanding and balanced response to negative experiences, thereby contributing to healthier management of intense emotions (Inwood & Ferrari, 2018; Neff et al., 2010). Consequently, individuals with higher levels of self-compassion may be expected to experience fewer difficulties in regulating their emotions.

The positive predictive value of rumination for difficulties in emotion regulation indicates that repetitive, maladaptive thinking patterns interfere with emotional adjustment. This finding is consistent with previous studies demonstrating an association between rumination and difficulties in emotion regulation (Anayurt, 2019; Çelik, 2023; Yin et al., 2025). By promoting persistent focus on negative emotions, rumination may hinder emotional processing and make effective emotion regulation more difficult. Therefore, higher levels of rumination may contribute to greater difficulties in emotion regulation.

Childhood traumatic experiences also emerged as a small but significant predictor of difficulties in emotion regulation, supporting the role of early adverse experiences in emotional development. Consistent with this finding, Burns et al. (2010), Dündar (2024), and Espeleta et al. (2018) reported that childhood traumatic experiences significantly predict difficulties in emotion regulation. However, the relatively weaker predictive effect of childhood traumatic experiences compared to self-compassion and rumination is noteworthy. This finding suggests that the impact of childhood adversity on emotion regulation difficulties may not be entirely direct but may also operate through the cognitive and emotional processes that individuals develop over time.

Taken together, the findings indicate that although childhood traumatic experiences constitute an important risk factor, self-compassion and rumination—both of which reflect individuals' current psychological functioning—appear to play a stronger role in explaining difficulties in emotion regulation. These results suggest that intervention programs targeting emotion regulation difficulties should focus not only on past experiences but also on strengthening self-compassion and reducing ruminative thinking patterns. In particular, self-compassion-based and mindfulness-oriented interventions may contribute to the development of more effective emotion regulation skills. These findings should be interpreted in light of the study's cross-sectional and correlational design. Therefore, causal conclusions cannot be drawn regarding the relationships among childhood traumatic experiences, self-compassion, rumination, and emotion regulation difficulties. Although the present study contributes to the literature by examining childhood traumatic experiences, self-compassion, and rumination together in relation to emotion regulation difficulties, the findings should be interpreted with caution, given the use of convenience sampling and the cross-sectional design. Future studies may benefit from longitudinal and experimental designs to better understand these relationships.

5. Recommendations

Based on the findings of this research, intervention programs targeting difficulties in emotion regulation should include mindfulness-based training and supportive interventions related to self-compassion. In intervention studies focusing on difficulties in emotion regulation, it is also recommended that individuals' cognitive processes be evaluated, that ruminative thinking tendencies be identified, and that interventions addressing these tendencies be planned. Furthermore, in psychological counseling and psychotherapy processes, when working with individuals experiencing difficulties in emotion regulation, it is recommended that their childhood traumatic experiences be taken into consideration and included in the assessment process. Compassion-focused interventions, mindfulness-based programs, and cognitive restructuring techniques may be useful in reducing rumination and enhancing self-compassion among adults with elevated emotion regulation difficulties.

6. Declarations

Ethics Approval and Consent to Participation. This study was approved by Hasan Kalyoncu University Scientific Research and Publication Ethics Committee (Meeting Date: 14.03.2025, Meeting No: 2025-5, Document No: E-97105791-050.04-77239). Written informed consent was obtained from all participants before they participated in the study.

Approval for Publication. Not applicable.

Availability of Data and Materials. The datasets generated and/or analyzed during the current study are not publicly available due to ethical and privacy restrictions, but are available from the corresponding author on reasonable request.

Competing Interests. The authors declare that they have no competing interests.

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