

Curriculum and Instruction in Career Decision-Making Anxiety: A Qualitative Study of Saudi University Students

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Abstract

Career decision-making anxiety among university students is often treated as an individual psychological concern, although it is experienced within educational settings where students interpret possible futures. This study examined the role of curriculum structures and instructional practices in Saudi university students' interpretations of and responses to career-related uncertainty. Interviews with 24 male students at the Al-Qunfudhah branch of Umm Al-Qura University constituted the primary data source and were complemented by eight non-participant observations across classrooms, advising contexts, and academic events. The data were analyzed using a hybrid deductive-inductive thematic analysis informed by Braun and Clarke's six-phase framework. Four framework-informed overarching themes organized the findings, while 13 sub-themes were developed inductively. Participants described greater clarity, confidence, and engagement when learning was coherent, applied, and connected to occupational contexts. By contrast, abstract curriculum content and limited links to professional practice were associated with heightened uncertainty, hesitation, and delayed decision-making. Responses nevertheless varied: some students actively sought information and explored available pathways, whereas others withdrew or relied on social reassurance without sustained action. Overall, the findings position career decision-making anxiety not simply as an internal state but as an educationally and contextually mediated experience shaped through interactions among curriculum, instruction, relational expectations, and perceived opportunity. They underscore the value of embedding applied learning, sustained guidance, and explicit connections between academic knowledge and future pathways within curriculum and instructional practice.

Keywords: career decision-making anxiety, curriculum design, instructional practices, career readiness, higher education, Saudi Arabia

1. Introduction

Career decision-making anxiety among university students has traditionally been framed as an individual psychological challenge associated with uncertainty, self-doubt, and limited access to information (Gati et al., 1996; Germeijs & Verschueren, 2007). Although this view has generated important insights, it can understate the role of educational environments in how such uncertainty is experienced and interpreted. Career choices rarely occur as isolated acts. Rather, they develop through ongoing curricular experiences and instructional interactions that influence how students understand, evaluate, and act on possible futures. From this standpoint, anxiety is not solely an internal state; it is also an emergent process mediated by the organization of learning and its connection to future pathways (Biggs & Tang, 2011; Kolb, 2015).

This broader view is especially relevant in contexts undergoing rapid socioeconomic transformation. In Saudi Arabia, Saudi Vision 2030 (2016) provides a broader policy context for educational and economic reform, while official labor market statistics provide context for understanding employment conditions (General Authority for Statistics, 2023a, 2023b). Students must therefore do more than select a career. They must interpret shifting labor market conditions and locate themselves within evolving professional landscapes (International Labour Organization, 2022a, 2022b). Under these conditions, higher education extends beyond knowledge transmission to serve as a setting for meaning-making, where students develop coherent orientations toward the future through what they study and how they are taught.

Fragmented curriculum pathways or instruction with limited applied relevance can make it difficult to translate academic knowledge into actionable directions, potentially reinforcing hesitation and reduced confidence. By contrast, coherent learning experiences aligned with real-world contexts can provide a firmer basis for informed and purposeful engagement with career possibilities (Jackson, 2015; Smith et al., 2014).

Despite growing interest in career decision-making, much of the literature continues to foreground individual-level constructs such as self-efficacy, resilience, and adaptability (Cabras et al., 2022; Lent et al., 2000). These approaches offer valuable insight into how individuals cope with uncertainty, yet they often position educational contexts as static background conditions rather than active mediators of experience. This limitation becomes more consequential in rapidly changing settings, where students must continually interpret emerging opportunities with incomplete information (Yasin et al., 2024; Zidi & Al-Shallagi, 2024). The role of curriculum structures and instructional practices in shaping how uncertainty is constructed, rather than merely managed, consequently remains insufficiently theorized.

Closing this gap calls for a process-oriented account that situates career decision-making within the lived dynamics of teaching and learning instead of focusing primarily on outcomes. Instructional interaction is central to such an account because it provides a mechanism through which students interpret opportunities, negotiate meaning, and develop confidence in relation to possible futures.

The present study develops this account by conceptualizing career decision-making anxiety as a contextually mediated process grounded in the interaction between educational structures and individual interpretation. Career Construction Theory frames career development as an ongoing process of meaning-making through which individuals establish coherence between present experiences and anticipated futures (Savickas, 2013). Social Cognitive Career Theory complements this position by emphasizing how contextual supports and barriers inform perceived capability and career-related behavior (Lent et al., 2000). The Developmental Decision-Making Model further explains how individuals move between exploration and commitment under conditions of uncertainty (Germeijs & Verschueren, 2007).

Together, these perspectives position curriculum and instructional practices as central mechanisms through which students interpret opportunities, assess their readiness, and negotiate future pathways. Drawing on qualitative accounts from Saudi university students, the study traces how career decision-making anxiety is experienced, interpreted, and translated into engagement, hesitation, or withdrawal. In doing so, it contributes a more integrated and pedagogically grounded understanding of career development processes.

1.1 Research Questions

Building on this perspective, the study examines career decision-making anxiety as a contextually mediated process within higher education. It considers how students interpret uncertainty and position themselves in relation to possible futures, as well as the role of curriculum structures and instructional experiences in these processes. The inquiry is guided by four research questions:

1. How do Saudi university students experience and interpret career decision-making anxiety within their educational environments?
2. How do students construct and evaluate future career possibilities, particularly in relation to their curriculum experiences and instructional practices?
3. In what ways do curriculum structures and instructional interactions shape students' confidence and perceived readiness for career decision-making?
4. How do students respond to career-related uncertainty, and what patterns of engagement, hesitation, or withdrawal emerge?

2. Literature Review

Career decision-making anxiety has traditionally been examined within the broader scholarship on career indecision, in which it is understood as a cognitive and emotional response to uncertainty, limited self-knowledge, and restricted access to information (Gati et al., 1996; Germeijs & Verschueren, 2007). This body of work offers valuable insight into how individuals process career-related choices, but it tends to locate the source of difficulty primarily within the individual and gives less attention to the educational environments in which uncertainty is experienced and interpreted. Students' concerns about the future do not arise in isolation; they develop within structured learning contexts that influence how available options are perceived, evaluated, and translated into meaningful directions.

More recent research has broadened this account by emphasizing adaptive psychological resources, including career adaptability, resilience, and self-efficacy, that support individuals as they navigate uncertain futures (Cabras et al., 2022; He et al., 2024; Pang et al., 2021; Xu et al., 2025). Emotional intelligence and psychological well-being have similarly been associated with more constructive engagement with career-related ambiguity and longer-term planning (Egbaria, 2023, 2025). Although these contributions provide a more dynamic understanding of individual capacity, they often continue to position the learning environment as a contextual backdrop rather than an active influence on how such capacities develop through everyday educational experiences. The role of curriculum and instructional practices in mediating these processes therefore remains insufficiently addressed.

A related body of research has examined the influence of sociocultural and relational contexts on career decision-making. In collectivist settings, choices are often negotiated within networks of family expectations, cultural norms, and shared understandings of acceptable futures (Hofstede, 2001; Markus & Kitayama, 1991; Triandis, 1995). Evidence indicates that these influences can both support and constrain individuals by affecting the opportunities they perceive and their confidence in pursuing them (Kim & Choi, 2019; Leong & Hardin, 2002; Leung et al., 2011; Zhou et al., 2024). Even within this broader account, however, educational experience frequently remains implicit, particularly regarding how curriculum pathways and instructional interactions mediate the relationship between personal aspirations and socially endorsed trajectories.

The educational dimension becomes especially important in higher education, where academic programs must respond to evolving labor market demands. Research increasingly emphasizes the integration of career development into curriculum design so that students can connect disciplinary knowledge with practical application. When this integration is limited, students may find it difficult to translate learning into actionable pathways, which can contribute to greater uncertainty and reduced confidence. Work-integrated learning can support clearer career trajectories and stronger professional identity formation by embedding authentic workplace experiences within academic programs (Jackson, 2015; Smith et al., 2014). Experiential learning theory likewise emphasizes the value of applying knowledge in real-world contexts and reflecting on that experience (Kolb, 2015). From a curriculum perspective, constructive alignment further highlights the importance of connecting learning outcomes, teaching practices, and assessment with career-relevant competencies (Biggs & Tang, 2011). Collectively, these approaches position curriculum as a mechanism through which students interpret and engage with future possibilities.

At the same time, critical perspectives in higher education caution against reducing university education to narrowly defined employability outcomes. Contemporary systems increasingly position students as responsible for adapting to unstable labor market conditions, thereby shifting much of the burden of uncertainty from institutions to individuals (Brown & Hesketh, 2004; Tomlinson, 2017). Employability is consequently framed less as a structural issue and more as an individual responsibility requiring continuous self-management and future-oriented positioning. These pressures may intensify career-related anxiety when students are expected to navigate rapidly changing professional landscapes without sufficient curricular coherence or sustained instructional support. From this perspective, such anxiety reflects not only personal uncertainty but also wider changes in the relationship among higher education, labor markets, and individual responsibility.

These tensions are particularly visible in settings undergoing rapid socioeconomic transformation. Against the policy background of Saudi Vision 2030 (2016), labor market reports provide context for examining students' career possibilities (General Authority for Statistics, 2023a, 2023b; International Labour Organization, 2022a, 2022b). Research on Saudi students' career perceptions has also documented concerns about employment prospects and limited university support for career planning (Zidi & Al-Shallagi, 2024). The challenge for students is not simply to identify available options, but to interpret changing conditions and determine how they might enter emerging professional fields. Without structured curricular guidance and sustained instructional interaction, this process becomes more difficult and affects how uncertainty is understood and negotiated.

Even so, fine-grained qualitative accounts of how students experience career decision-making anxiety within curriculum and instructional contexts remain limited, particularly in the Arab Gulf region. Existing studies have often emphasized measurable correlates and broad patterns, leaving less room to examine how uncertainty is constructed and enacted through everyday educational experiences (Yasin et al., 2024; Zidi & Al-Shallagi, 2024). What remains underexamined is the interaction among curriculum structures, instructional practices, and students' lived experiences. The present study addresses this gap by examining career decision-making anxiety as an educationally mediated process and contributes a more integrated, contextually grounded, and pedagogically relevant account of how students engage with uncertain career futures.

3. Conceptual Framework

Understanding career decision-making anxiety requires an account that does not treat psychological, social, structural, and educational influences as separate domains. These influences intersect in students' lived experiences, affecting how uncertainty is interpreted, future possibilities are evaluated, and individuals position themselves in relation to potential career paths. Educational environments are part of this process rather than neutral settings. Curriculum structures and instructional practices influence how students encounter knowledge, become aware of opportunities, and assess their readiness to pursue them. Career decision-making anxiety is therefore understood as emerging through the interaction between individual interpretation and the conditions created by teaching and learning.

Career Construction Theory provides a central foundation for this interpretation (Savickas, 2013). It conceptualizes career development as a meaning-making process through which individuals establish coherence among past experiences, present circumstances, and imagined futures. Within educational settings, this process is closely connected to how curriculum is organized and experienced. Coherent and connected learning pathways can help students develop meaningful narratives about their futures, whereas fragmented or abstract experiences may make it more difficult to relate academic knowledge to possible career trajectories.

The Developmental Decision-Making Model complements this perspective by framing career decision-making as a developmental sequence involving exploration and commitment under conditions of uncertainty, incomplete information, and emotional response (Germeijs & Verschueren, 2007). Although the model clarifies how decisions unfold, its application in rapidly changing higher education contexts requires attention to the conditions that enable or constrain exploration. Progression depends not only on individual readiness but also on whether curriculum pathways and instructional support provide opportunities for reflection, information seeking, and informed engagement. When these forms of support are limited, students may remain uncertain for longer or experience difficulty committing to a clear direction.

Social Cognitive Career Theory offers further insight by explaining how contextual supports and barriers inform expectations, choices, and perceived capabilities (Lent et al., 2000). Grounded in social cognitive theory (Bandura, 1986), it directs attention to the interaction between personal interpretation and environmental conditions. In higher education, these conditions extend beyond interpersonal influences to include curriculum design and instructional practices that affect how knowledge is accessed, applied, and evaluated. Teaching that provides guidance, constructive feedback, and opportunities for real-world application can serve as an enabling condition for confidence and perceived readiness. Conversely, limited instructional engagement or unclear curriculum pathways may constrain exploration and reinforce uncertainty and hesitation.

Together, these theories inform four interrelated analytical domains: students' psychological experiences of career decision-making anxiety; their construction and evaluation of future career possibilities; the internal and external influences on decision-making confidence; and their coping responses and adaptive behaviors under uncertainty. These domains correspond to the research questions and provide a provisional conceptual structure for examining the data. They are not treated as isolated categories. Rather, structural conditions, relational expectations, psychological interpretation, and curriculum and instructional practices operate across the four domains as cross-cutting influences. Within this framework, anxiety is not viewed as a direct reaction to uncertainty but as emerging from how uncertainty is interpreted through the interaction of these influences. Curriculum and instruction are conceptualized as mediating factors that may provide clarity, coherence, and experiential grounding or leave students to navigate complexity with limited guidance.

By positioning curriculum and instructional environments as active conditions in meaning-making rather than passive background features, the framework offers a context-sensitive account of how career-related uncertainty acquires psychological significance and is translated into behavioral responses. It also provides a basis for examining how educational practices may help students engage more constructively with uncertain and evolving career landscapes.

4. Methodology

4.1 Research Design

This study employed a qualitative research design to examine how career decision-making anxiety is experienced and interpreted within curriculum and instructional contexts. A qualitative approach was appropriate because the study focused on meaning-making processes and contextually embedded experiences that are not easily captured through standardized measures. An interpretive orientation guided the inquiry, emphasizing participants' perspectives and the meanings they constructed through their educational experiences (Creswell & Poth, 2018; Patton, 2015). This

orientation is consistent with process-based accounts of career development, in which decision-making emerges through interaction between individuals and their environments.

The decision to prioritize qualitative methods over large-scale surveys reflected both methodological and contextual considerations. Although quantitative approaches offer breadth, they may provide less access to complex and emotionally embedded experiences. Repeated exposure to surveys may also reduce engagement and affect response quality (Adams & Umbach, 2012). Semi-structured interviews were therefore selected to provide flexibility, depth, and responsiveness to participants' accounts.

Because higher education in Saudi Arabia is gender-segregated, particularly at regional campuses such as Al-Qunfudhah, the study included only male participants. This decision was also shaped by the observational component of the research. Female students were taught in separate facilities, and the access arrangements available for the study did not permit the male researcher to conduct equivalent observations in female classrooms, advising settings, or academic events.

4.2 Participants and Sampling

Participants were recruited from four colleges at the Al-Qunfudhah branch of Umm Al-Qura University: Medicine, Health Sciences, Engineering and Computing, and University College. These colleges represented applied and theoretical disciplines and provided variation in academic pathways and perceived career opportunities.

A stratified purposive sampling strategy was used, with each college treated as a stratum. Within each stratum, participants were selected to reflect variation in academic level, academic performance, and age, which ranged from 18 to 23 years. Faculty advisors facilitated initial access, while the researcher retained responsibility for final selection to minimize potential gatekeeping bias.

The final sample comprised 24 participants, with six drawn from each college. Sample adequacy was guided by the concept of information power (Malterud et al., 2016). Thematic sufficiency was evident by the 21st interview and was confirmed through the remaining interviews.

4.3 Data Collection

Data were collected between October and December 2025 through semi-structured interviews and non-participant observations. Interviews constituted the primary source for understanding students' subjective experiences of career uncertainty. Observations served as a complementary contextual source for examining whether and how classrooms, academic advising, and academic events provided or constrained opportunities for career-related discussion, guidance, and engagement (Braun & Clarke, 2021; Creswell & Poth, 2018).

Twenty-four interviews were conducted in Arabic, each lasting approximately 45–60 minutes. The interviews explored participants' career aspirations, experiences of uncertainty, and perceptions of family, cultural, and educational influences. All interviews were audio-recorded with participants' consent and transcribed verbatim. English translations were subsequently prepared for cross-language review and the reporting of findings.

A structured translation process was followed to preserve linguistic and conceptual accuracy. Transcripts were independently translated, collaboratively reviewed, and back-translated to examine equivalence. Academic experts also reviewed the translated materials. The interview guide was piloted with two students to assess its clarity, and their data were excluded from the final analysis. The original Arabic transcripts remained the primary materials for initial coding so that linguistic and cultural nuances were retained.

Eight non-participant observation sessions were conducted in classrooms, academic advising contexts, and academic events. Each session lasted between 60 and 90 minutes. These settings were selected because they offered different opportunities for students to encounter career-related information and connect academic learning with possible futures. A consistent observation protocol directed attention to explicit connections between course content and occupational roles; students' questions about careers or internships; visible participation or withdrawal during future-oriented discussions; responses to instructional or advising guidance; and contextual conditions that facilitated or constrained engagement. The researcher maintained a non-intrusive role and recorded descriptive field notes.

Observable behavior was neither treated as direct evidence of internal anxiety nor used to evaluate individual students. Instead, observations provided contextual evidence that was compared with interview accounts to identify convergence, divergence, and situational variation. This comparison helped clarify how career uncertainty was expressed and mediated within educational settings.

4.4 Data Analysis

The data were analyzed using a hybrid deductive–inductive thematic analysis following the six-phase framework developed by Braun and Clarke (2006). The four analytical domains established in the conceptual framework and reflected in the research questions provided a provisional deductive structure for organizing the dataset. Rather than being treated as themes derived entirely from the data, these domains initially functioned as a priori organizing categories. Their fit was examined against the complete dataset, after which they were refined and retained as overarching themes because they captured recurrent patterns across participants' accounts.

Within this organizing structure, codes and sub-themes were developed inductively through close engagement with the interview data. Evidence that extended beyond the initial framework was also examined for additional and cross-cutting patterns. Initial coding of the interview transcripts was conducted in Arabic to preserve linguistic nuance, and emerging codes were compared across participants, academic disciplines, and observational contexts. The coding structure was reviewed iteratively to refine distinctions among the 13 sub-themes and identify relationships extending across the four overarching themes.

Observational field notes were compared with the interview findings to identify convergent, divergent, and context-specific patterns. They were used to contextualize and, when necessary, challenge interpretations developed from participants' accounts rather than to verify the accuracy of individual self-reports. NVivo (Version 14) was used to organize the data (Lumivero, 2023), while analytical decisions remained grounded in repeated engagement with the complete dataset.

4.5 Analytical Rigor

Several strategies were used to strengthen analytical rigor. Approximately 25% of the interview data were independently coded by a second qualitative researcher to examine coding consistency and refine the coding framework through discussion. Peer debriefing was conducted throughout the analytical process to challenge interpretations and consider alternative explanations (Nowell et al., 2017). Credibility was further supported by comparing interview and observational data to identify convergence, divergence, and contextual variation, rather than treating either source as validating the other. A reflexive journal was also maintained to document analytical decisions and the researcher's engagement with the data.

4.6 Trustworthiness and Ethical Considerations

Trustworthiness was addressed using Lincoln and Guba's (1985) criteria. Credibility was supported through data-source triangulation and member checking with six participants, transferability through contextual description, and dependability and confirmability through systematic documentation and an audit trail. Ethical approval was obtained from the Biomedical Research Ethics Committee at Umm Al-Qura University (HAPO-02-K-012-2025-09-2892), and the study adhered to the principles of the Declaration of Helsinki (World Medical Association, 2013). All participants provided informed consent, while confidentiality was maintained through anonymization and secure data handling.

4.7 Researcher Reflexivity

Reflexivity was maintained throughout the research process to acknowledge the potential influence of the researcher's position on data collection and interpretation (Berger, 2015). The researcher documented assumptions, reflections, and analytical decisions in a reflexive journal. To reduce the potential influence of prior instructional relationships, he did not interview his own students. A participant-centered approach was maintained throughout data collection, allowing participants to describe their experiences in their own terms (Patton, 2015).

5. Findings

The findings show how students experienced and interpreted career decision-making anxiety within their educational environments. The analysis was organized around four deductively informed overarching themes whose fit was examined against the complete dataset: psychological experiences of anxiety, perceptions of future careers, influences on decision-making confidence, and coping responses. Within this structure, inductive analysis generated 13 sub-themes representing patterns developed from participants' accounts. The overarching themes and their data-derived sub-themes are presented sequentially, supported by participant quotations and contextualized through observational evidence.

Table 1. Participant Distribution by College and Perceived Labor Market Demand (N = 24)

College	Example Majors	Perceived Labor Market Demand	Participants (n)
College of Medicine	MBBS (Medicine & Surgery)	High	6
College of Health Sciences	Emergency Medical Services (EMS)	Low	6
College of Engineering and Computing	Construction Engineering; Industrial Engineering; Computer Science; Computer Engineering and Networks	High	6
University College	Arabic Language; Sharia & Islamic Studies; Mathematics; Physics; English; Chemistry	Low	6
Total	—	—	24

Note. The demand categories reflect participants' perceptions and were contextualized using publicly available employment reports (Argaam, 2024; Jadwa Investment, 2025). They are used as interpretive categories rather than as objective classifications of labor market demand.

As Table 1 shows, the sample was evenly divided between fields perceived as offering stronger employment prospects and those associated with more limited opportunities. Medicine was consistently viewed as a high-demand discipline, whereas Emergency Medical Services represented a more context-dependent case, with opportunities regarded as narrower and concentrated within a limited sector. These perceptions were reflected in how participants approached their future careers: students in high-demand fields generally described clearer pathways and greater confidence, while those in lower-demand fields expressed more ambiguity and hesitation. Observational patterns were broadly consistent with these accounts, although they were interpreted as contextual evidence rather than confirmation of participants' internal experiences. In medicine and engineering-related settings, students engaged more actively in career-oriented discussions, often asking about internships, specialization pathways, and professional licensing. In lower-demand settings, engagement was more limited; students sometimes remained silent or redirected discussions toward employment stability and geographic constraints.

5.1 Thematic Findings

Theme 1: Psychological Experiences of Career Decision-Making Anxiety

Participants seldom experienced career decision-making as an open-ended or exploratory process. Instead, their accounts presented it as a high-stakes undertaking closely bound up with identity, social expectations, and anticipated long-term consequences. Many viewed career choices as defining and difficult to reverse; accordingly, their accounts emphasized cautious evaluation more often than open exploration.

Against the backdrop of Saudi Vision 2030, the expanding range of opportunities was not necessarily described as reducing this pressure. For many participants, it also introduced ambiguity about which pathways were viable, secure, or socially appropriate. Their uncertainty arose not only from the number of available options but also from the absence of clear criteria for evaluating them, particularly when curriculum experiences offered limited guidance on how academic pathways connected with future occupational roles. Three interrelated sub-themes captured this experience.

Sub-theme 1.1: Fear of Failure and Irreversible Regret

Participants frequently framed career decisions in terms of risk and the possibility of enduring regret. As one participant noted, *"If I choose wrong, I might be stuck forever. There's no going back, and I can't disappoint my father"* (HS-EMS.4). Another reflected, *"I keep imagining myself ten years from now, hating my job and blaming myself. That thought paralyzes me"* (ENG-E.1).

Across these accounts, anxiety often centered more on anticipated future consequences than on participants' immediate circumstances. Rather than approaching the available options primarily as possibilities to explore, participants tended to focus on avoiding an unfavorable outcome. Their accounts associated this concern with hesitation and difficulty committing to a particular direction, especially when they had few structured curricular opportunities to explore or test potential pathways.

Sub-theme 1.2: Identity Uncertainty and Role Conflict

A second source of anxiety involved tensions between personal aspirations and socially recognized roles. In several

accounts, participants' pathways conflicted with what their families or communities regarded as "respectable." One participant explained, *"I'm good at numbers, but I've always wanted to start my own business. I don't know if that's respected in my family"* (UC-M.3), while another stated, *"I love creative writing, but I was told that Sharia or Arabic are the only respectable choices for me"* (UC-AR.4).

These accounts suggest that participants negotiated their sense of an acceptable career identity through social expectations as well as personal preferences. The resulting tension was reflected in hesitation and limited clarity when they discussed their future plans, particularly when their instructional experiences had offered little exposure to a broader range of career pathways.

Sub-theme 1.3: Social Comparison and Pressure to Conform

Social comparison constituted a third dimension of anxiety. Participants evaluated their progress against that of peers and relatives, and these comparisons were often accompanied by self-doubt. As one participant observed, *"When I see my cousin in Canada doing internships, I feel behind. I start questioning everything I'm doing here"* (ENG-E.5).

Other accounts revealed pressure to follow expected occupational trajectories. One student noted, *"I don't want to work in a school, but everyone assumes I will. It's like my career is already decided for me"* (UC-AR.2). Such expectations appeared to narrow participants' sense of available choice because departure from familiar pathways was perceived as carrying social consequences. Where instructional settings provided limited exposure to alternative careers, participants' accounts also suggested a greater reliance on peers, relatives, and established social expectations as reference points.

Synthesis of Theme 1

Taken together, the three sub-themes show how career decision-making anxiety emerged through the interaction of perceived irreversibility, the negotiation of identity within social expectations, and comparison with normative trajectories. Rather than describing career choice as a process of open exploration, participants portrayed it as a high-pressure evaluation of potentially enduring personal and social consequences. Their accounts further suggest that the significance attached to these consequences was related not only to social expectations but also to the degree of clarity and exploratory support available within their educational experiences.

Theme 2: Future Career Perceptions and Aspirational Conflict

Participants did not view future career prospects as fixed or equally available. Instead, they interpreted them in relation to their perceived readiness, social expectations, and the opportunities made visible within their learning environments. They considered not only whether a pathway existed but also whether it was accessible and appropriate within their circumstances. Against the backdrop of Saudi Vision 2030, participants recognized a growing range of emerging pathways, yet many found it difficult to position themselves within them, particularly when curriculum content remained abstract or only weakly connected to applied contexts. Three interrelated sub-themes captured how these perceptions were formed.

Sub-theme 2.1: Ambivalent Engagement with Expanding Opportunities

Participants were aware of emerging sectors, but this awareness was often accompanied by uncertainty about their own preparedness and fit. As one student noted, *"There are new sectors... but I'm not sure I'll fit into any of them"* (ENG-CS.3). Another explained, *"I think I can do something good, but I haven't seen any lab outside the university. How can I know if I'm ready?"* (UC-C.1).

These accounts suggest a gap between recognizing an opportunity and perceiving oneself as prepared to pursue it. When emerging pathways remained abstract or were not accompanied by applied exposure, participants found it difficult to evaluate them in relation to their own knowledge and capabilities. During observed career-related discussions, participation sometimes diminished as the focus moved from general awareness of opportunities to specific qualifications and entry requirements. This behavioral pattern was treated as contextual evidence of the difficulty students faced in translating broad possibilities into actionable pathways, rather than as direct evidence of their internal states.

Sub-theme 2.2: Perceived Educational–Occupational Misalignment

Participants frequently described a disconnect between academic learning and occupational expectations. Their concern was not necessarily a lack of disciplinary knowledge but uncertainty about how that knowledge could be applied and how entry into relevant occupations was organized. As one participant stated, *"We study formulas and proofs, but no one tells us how to use them in real jobs. It feels disconnected"* (UC-M.2). Similarly, another noted, *"I'm learning how to save lives, but I have no idea how the hiring process works"* (HS-EMS.2).

These accounts point to a perceived gap between academic preparation and professional practice. Participants associated this gap with curriculum content that emphasized theoretical knowledge while offering limited opportunities for application or engagement with occupational contexts. Observational evidence provided further context: during advising-related activities, students repeatedly asked about internships, application procedures, and employment requirements. Rather than confirming participants' internal uncertainty, these questions indicated that procedural information about moving from academic study to employment was not always clear or readily available. The pattern underscores the value of more explicit instructional guidance and closer integration between academic learning and occupational preparation.

Sub-theme 2.3: Constrained Opportunity under Sociostructural Conditions

Participants' perceptions of opportunity were also shaped by employment-related risk, family expectations, and geographic constraints. Some associated private-sector employment with instability: *"In the private sector, they can fire you anytime. Government jobs are safer"* (UC-AR.1). Others emphasized the importance of social approval, as one participant explained: *"My family thinks working in a company is not respectful"* (ENG-E.2). Geographic limitations further affected perceived accessibility: *"Most jobs are in Riyadh or Jeddah... that's difficult for me"* (UC-M.2).

These accounts suggest that participants evaluated opportunities not only according to their availability but also in terms of perceived accessibility, security, and social acceptability. During observation sessions, participation was sometimes more limited in discussions involving relocation or less familiar occupational pathways. This pattern was interpreted as contextual evidence consistent with participants' accounts, not as proof of their underlying motives or preferences. In combination with participants' reported lack of exposure to diverse career trajectories within instructional settings, these conditions appeared to narrow the range of options they regarded as feasible.

Synthesis of Theme 2

Taken together, the three sub-themes show that participants did not experience career opportunities as objective or equally accessible possibilities. Instead, their perceptions were constructed through ambivalent engagement with emerging pathways, perceived misalignment between education and employment, and sociostructural conditions that shaped feasibility. Whether an opportunity was viewed as attainable or uncertain was therefore related not only to its formal availability but also to the extent to which curriculum and instructional experiences helped participants connect academic knowledge, personal readiness, and occupational requirements.

Theme 3: Internal and External Influences on Career Decision-Making Confidence

Participants did not describe career decision-making confidence as a stable personal attribute. Instead, it varied in relation to their ability to manage emotional responses, the feedback they received from others, the support available within the university, and their perceived position within the labor market. Their accounts suggest that confidence was repeatedly reassessed as they interpreted their circumstances and the resources available to them. Hesitation was often described in terms of perceived limitations in capability rather than an absence of motivation. Four interrelated sub-themes illustrate how this confidence was constructed.

Sub-theme 3.1: Emotional Regulation as a Capacity Filter

Emotional regulation was closely related to how participants assessed their ability to act under uncertainty. Those who described using reflective strategies also reported a greater sense of control. As one participant noted, *"Sometimes I feel lost, but I sit alone and write down what matters most to me. It helps me calm down"* (UC-P.1). By contrast, others described persistent worry that restricted their willingness to act: *"I know I worry too much, but I can't stop thinking about what happens if I make the wrong decision"* (HS-EMS.1).

These accounts suggest that confidence was associated not only with the clarity of available options but also with participants' ability to manage their emotional responses to those options. Participants who described greater difficulty regulating worry also expressed less readiness to engage with potential pathways. Where instructional experiences provided few opportunities for reflection or guided decision-making, emotional responses appeared to assume a more prominent role in how participants evaluated their own capabilities.

Sub-theme 3.2: Relational Validation and Comparative Self-Evaluation

Confidence was also negotiated through relationships, particularly through family expectations and comparisons with peers. In some cases, parental expectations restricted participants' perceived autonomy: *"My father expects me to be an engineer like him. I can't disappoint him"* (ENG-E.1). In other cases, family support strengthened participants' sense of capability. As one participant explained, *"My parents encouraged me to choose what I want... their trust makes me feel capable"* (MED-T.1).

Peer comparison added another evaluative dimension. One participant noted, *“My friends already have a clear path... while I still feel lost”* (UC-M.3). Together, these accounts indicate that confidence was relationally negotiated rather than derived from personal belief alone. Approval and encouragement could affirm participants’ perceived capability, whereas prescriptive expectations and unfavorable comparisons were associated with self-doubt and reduced autonomy.

When the interview accounts were considered alongside the observational material, participants who reported stronger relational support were often among those who engaged more readily in future-oriented discussions and career-related activities. By contrast, participants who described greater relational pressure sometimes responded briefly or avoided extended engagement when alternative pathways were discussed. This correspondence was treated as a contextual pattern rather than as confirmation that relational support directly determined the observed behavior.

Sub-theme 3.3: Institutional Mediation of Confidence

Institutional support emerged as an uneven and often episodic source of confidence. Participants described considerable variation in the availability and continuity of career guidance. Some reported gaining temporary clarity from isolated activities: *“There was one seminar about careers... it helped me feel more certain for a while”* (MED-T.2). Others emphasized that one-time interventions did not resolve their continuing concerns: *“We had one lecture about resumes... but I’m still confused”* (UC-EN.2).

These accounts suggest that isolated institutional interventions could offer short-term reassurance but did not always provide the continuity participants needed to navigate career decisions. Participants associated limited or fragmented guidance with continuing uncertainty about how to identify, access, and use resources. Their accounts point to the value of integrating career-related learning more consistently across curriculum and instructional experiences rather than confining it to occasional seminars or lectures.

Sub-theme 3.4: Structural Positioning through Academic Pathways

Participants’ confidence was also related to the perceived alignment between their specializations and labor market demand. Students in fields regarded as having stronger demand described clearer trajectories and greater certainty. A medical student stated, *“In medicine, I know there will always be demand”* (MED-T.3). By contrast, those in fields perceived as less secure expressed greater ambiguity and vulnerability: *“I feel stuck... jobs are disappearing in our field”* (UC-AR.1).

These accounts suggest that confidence was partly shaped by participants’ interpretations of the opportunity structures associated with their academic pathways. Stronger perceived alignment between a specialization and employment prospects coincided with greater confidence and engagement, whereas perceived instability was associated with hesitation. This relationship was particularly salient when curriculum experiences did not clearly explain how particular academic pathways connected with evolving labor market requirements.

Synthesis of Theme 3

Taken together, the four sub-themes show that career decision-making confidence was constructed through the interaction of emotional regulation, relational validation, institutional support, and perceived structural positioning. These influences informed how participants evaluated their readiness to act under uncertain conditions. Confidence therefore emerged not merely as an internal belief but as a situated judgment shaped by the conditions through which participants interpreted their capabilities and available opportunities. Curriculum and instructional experiences formed an important part of these conditions by either providing or failing to provide the clarity, continuity, opportunities for reflection, and meaningful guidance needed to support informed decision-making.

Theme 4: Coping Strategies and Adaptive Behaviors in Career Uncertainty

Participants did not describe their responses to career-related uncertainty as fixed personal tendencies. Instead, these responses varied according to their perceived control, access to resources, and relational support. They ranged from active engagement to postponement, withdrawal, and reliance on reassurance, reflecting how participants interpreted their capacity to respond to uncertainty. Three interrelated sub-themes captured these response patterns.

Sub-theme 4.1: Active Engagement through Information Seeking

Some participants attempted to manage uncertainty by actively seeking information, consulting academic or professional contacts, and using online resources. As one participant noted, *“I follow people who talk about different jobs and how they got them. It helps me see options I didn’t know about”* (UC-C.2). Others described more direct forms of engagement: *“I spoke with my professors about my future, and it made me feel like I was moving forward”* (ENG-CS.1).

These accounts suggest that information-seeking behaviors were associated with a growing sense of control and direction. Participants who described using these strategies also expressed greater willingness to engage in career-related discussions and activities. This association was particularly apparent when instructional interactions created opportunities for dialogue, guidance, and exposure to occupational pathways beyond the university.

Sub-theme 4.2: Avoidance and Temporal Deferral

Other participants described postponing career planning or directing their attention away from career-related concerns. Their accounts suggested that these responses could ease immediate emotional pressure without resolving the underlying uncertainty. As one participant explained, *"I'll think about jobs after I graduate. Right now, I just focus on passing"* (UC-M.4). Another described distraction as a way of coping: *"When I get anxious, I just watch Netflix... it's better than thinking about the future"* (UC-AR.2).

These accounts indicate that postponement and distraction functioned as short-term responses when participants perceived limited control over their future pathways. The observational notes documented related patterns of limited participation during career-oriented discussions and advising activities. When conversations turned to planning after graduation, some students did not contribute verbally or redirected their comments toward immediate coursework requirements. Others remained present but silent and made little eye contact during the discussion. These observable behaviors were recorded as limited participation and were not treated as proof of internal anxiety or deliberate avoidance. They occurred in settings that participants had also described as offering limited curricular structure or guidance for future planning.

Sub-theme 4.3: Relational Coping through Social Reassurance

A third response pattern involved turning to family members and peers for reassurance and emotional validation rather than for procedural guidance. As one participant noted, *"All of us are confused... so it's fine"* (HS-EMS.3), while another explained, *"My mother always tells me I'll find my path eventually"* (UC-EN.1).

Participants described shared uncertainty and reassurance as easing immediate pressure and providing a degree of emotional stability. However, these interactions did not consistently lead to information seeking, exploration, or concrete planning. Their accounts suggest that social reassurance alone was not always sufficient to sustain engagement with career decision-making when it was not accompanied by structured guidance or applied exposure within educational settings.

Synthesis of Theme 4

Taken together, the three sub-themes show that participants responded to career-related uncertainty in different ways according to their perceived control and access to support. Active information seeking was associated with a stronger sense of agency, while postponement and withdrawal accompanied perceptions of limited control. Relational reassurance offered emotional stability but did not necessarily lead to sustained action. These response patterns illustrate how participants translated their interpretations of uncertainty into different forms of behavior. They also show that participants associated structured dialogue, instructional guidance, and applied exposure with more active engagement, whereas limited educational support often accompanied postponement or restricted participation.

5.2 Cross-Cutting Variations in the Findings

Although the four deductively informed overarching themes structure the main findings, the inductively developed sub-themes and cross-case analysis revealed additional variation by academic stage, prior experience, and socioeconomic background. These cross-cutting patterns suggest that career-related uncertainty was not experienced uniformly. Rather, participants' experiences varied according to their exposure, available resources, and access to opportunities.

Academic stage represented one source of variation. Final-year students generally described greater clarity about their intended pathways and reported more exposure to internships and career-related activities. As one participant noted, *"Now that I'm about to graduate, I know exactly what sector I'm aiming for"* (ENG-E.4). The observational notes provided a compatible behavioral context. Final-year students more often initiated or sustained discussions about employment pathways, internships, and professional preparation. Earlier-stage students contributed less frequently to future-oriented conversations and sometimes waited for peers to respond before participating. These observations were treated as contextual patterns rather than as direct evidence of differences in confidence or anxiety.

Prior experience was also associated with variation in how participants interpreted career pathways. Those with previous work experience tended to describe their future plans in more specific and strategic terms, drawing on their exposure to workplace expectations. One participant explained, *"After working for a year before coming back to*

university, I know exactly which companies I want to apply to" (UC-EN.6). By contrast, participants with limited work-related experience more often described difficulty translating abstract opportunities into concrete plans.

Socioeconomic background constituted a further source of variation. Participants with fewer financial resources or more limited social networks reported reduced access to mentorship and professional connections, as well as greater restrictions on geographic mobility. As one participant stated, *"Even if I find a job in another city, the cost of moving... is too high for my family to support"* (UC-M.5). When these interview accounts were considered alongside the field notes, participants who reported broader social and professional networks were often among those who sought guidance more actively. Others contributed less frequently or expressed greater caution when discussing opportunities that required relocation or additional financial resources. This correspondence was interpreted as contextual variation and not as evidence that socioeconomic position directly determined the observed behavior.

Taken together, these cross-cutting variations indicate that although career-related uncertainty was widely shared, participants did not have equal resources for navigating it. Academic progression, experiential exposure, and socioeconomic position were associated with differences in how anxiety was experienced, opportunities were interpreted, confidence was constructed, and uncertainty was addressed behaviorally. Table 2 summarizes the four overarching themes, their 13 inductively developed sub-themes, qualitative descriptors of recurrence, and illustrative quotations.

Table 2. Summary of Themes, Sub-Themes, and Illustrative Evidence

Overarching Theme/Sub-Theme	Qualitative Descriptor	Illustrative Quotation
1. Psychological Experiences of Career Decision-Making Anxiety		
1.1 Fear of Failure and Irreversible Regret	Common	<i>"If I choose wrong, I might be stuck forever. There's no going back, and I can't disappoint my father"</i> (HS-EMS.4)
1.2 Identity Uncertainty and Role Conflict	Predominant	<i>"I've always wanted to start my own business. I don't know if that's respected in my family"</i> (UC-M.3)
1.3 Social Comparison and Pressure to Conform	Predominant	<i>"When I see my cousin in Canada doing internships, I feel behind"</i> (ENG-E.5)
2. Future Career Perceptions and Aspirational Conflict		
2.1 Ambivalent Engagement with Expanding Opportunities	Emergent	<i>"There are new sectors... but I'm not sure I'll fit into any of them"</i> (ENG-CS.3)
2.2 Perceived Educational–Occupational Misalignment	Common	<i>"We study formulas and proofs, but no one tells us how to use them in real jobs. It feels disconnected"</i> (UC-M.2)
2.3 Constrained Opportunity under Sociostructural Conditions	Common	<i>"Most jobs are in Riyadh or Jeddah... that's difficult for me"</i> (UC-M.2)
3. Internal and External Influences on Career Decision-Making Confidence		
3.1 Emotional Regulation as a Capacity Filter	Emergent	<i>"I sit alone and write down what matters most to me. It helps me calm down"</i> (UC-P.1)
3.2 Relational Validation and Comparative Self-Evaluation	Predominant	<i>"My parents encouraged me to choose what I want... their trust makes me feel capable"</i> (MED-T.1)
3.3 Institutional Mediation of Confidence	Common	<i>"We had one lecture about resumes... but I'm still confused"</i> (UC-EN.2)
3.4 Structural Positioning through Academic Pathways	Common	<i>"In medicine, I know there will always be demand"</i> (MED-T.3)
4. Coping Strategies and Adaptive Behaviors in Career Uncertainty		
4.1 Active Engagement through Information Seeking	Emergent	<i>"I spoke with my professors about my future, and it made me feel like I was moving forward"</i> (ENG-CS.1)

Table 2. Summary of Themes, Sub-Themes, and Illustrative Evidence (continued)

Overarching Theme/Sub-Theme	Qualitative Descriptor	Illustrative Quotation
4.2 Avoidance and Temporal Deferral	Common	"I'll think about jobs after I graduate. Right now, I just focus on passing" (UC-M.4)
4.3 Relational Coping through Social Reassurance	Common	"All of us are confused... so it's fine" (HS-EMS.3)

Note. Qualitative descriptors indicate the relative recurrence of sub-themes within this cohort: *Predominant* denotes representation in more than half of participants' accounts; *Common*, in at least one-quarter but no more than one-half; and *Emergent*, in fewer than one-quarter. These descriptors do not indicate statistical prevalence, significance, or thematic importance.

5.3 Integrated Synthesis of Findings

The findings are best understood as an interconnected and recursive process rather than as four discrete thematic domains. Across participants' accounts, future opportunities were interpreted through relational expectations, prior experiences, and educational contexts. These interpretations were related to perceived capability and to responses ranging from information seeking to postponement, withdrawal, or reliance on reassurance. The analysis did not establish a fixed sequence; instead, these elements overlapped and interacted in different ways. Against the backdrop of Saudi Vision 2030, expanded career opportunities did not necessarily resolve ambiguity. Emerging pathways were more readily understood when participants could connect them to academic learning, personal aspirations, and perceived social realities. When these connections were unclear, uncertainty was more often framed as risk or possible loss, whereas greater applied exposure, instructional guidance, or relational support was associated with more manageable uncertainty.

Curriculum and instructional experiences formed a cross-cutting part of this process. Participants who described learning as abstract or weakly connected to occupational contexts also reported greater difficulty evaluating available pathways. By contrast, applied learning, opportunities for dialogue, and explicit connections between academic content and professional roles were associated with greater clarity and more actionable career options. These differences help explain why participants facing broadly similar structural conditions responded differently: the meaning attributed to uncertainty varied with perceived capability and access to informational, relational, and educational resources. Some sought information and explored possible pathways, whereas others postponed planning, limited their engagement, or relied primarily on social reassurance.

Taken together, the findings position career decision-making anxiety as a contextually mediated experience emerging from the interaction of perceived opportunities, relational expectations, perceived capability, and available support. These interconnected elements were associated with different patterns of engagement, hesitation, and withdrawal. Curriculum and instructional experiences contributed to the interpretive context through which career uncertainty acquired meaning and was translated into behavioral responses. Figure 1 integrates findings across the four overarching themes into a proposed interpretive framework comprising five conceptual components. Its directional links and feedback loop represent theoretical propositions for further investigation, without establishing a fixed temporal sequence or causal relationships.

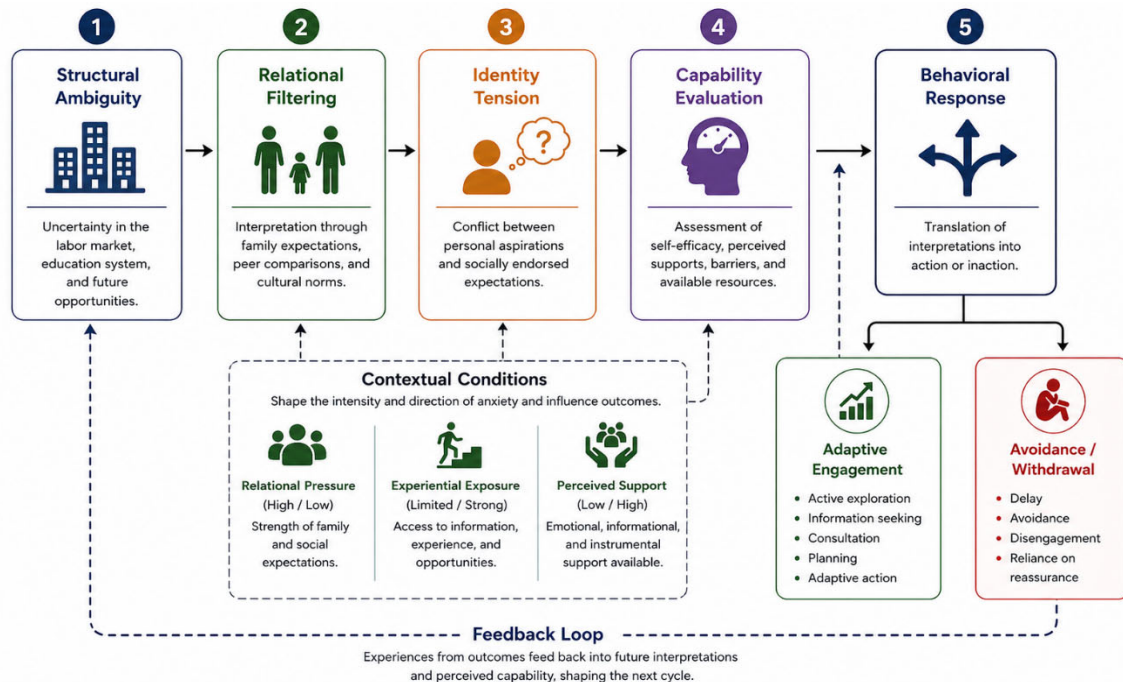


Figure 1. A Relational Process Framework for Career Decision-Making Anxiety

Note. The five numbered components synthesize findings across the four overarching themes. Numbering identifies conceptual components, not temporal stages. Arrows indicate proposed interpretive connections, and the feedback loop is a theoretical proposition requiring longitudinal investigation. Contextual conditions operate across the components.

6. Discussion

The present study provides a contextually grounded interpretation of career decision-making anxiety among Saudi university students. Rather than treating it as a purely internal psychological state, the findings position it as an experience formed through ongoing interactions among curriculum structures, instructional practices, relational expectations, and changing labor market conditions. This perspective extends individual-centered explanations by showing how students' interpretations of uncertainty were related to the extent to which their learning environments helped them understand and engage with future possibilities.

A central contribution of the study is its reframing of career decision-making anxiety as a contextually responsive process rather than a fixed condition. Traditional models have provided valuable accounts of individual-level difficulties, including indecision and limited information (Gati et al., 1996; Germeijs & Verschueren, 2007). The present findings add an educational dimension to these explanations. Participants who reported fewer curricular opportunities for exploration also tended to describe greater perceived risk and hesitation. Within their accounts, career choice was experienced less as a developmental process of exploration and more as a consequential commitment that was difficult to reverse. This pattern draws attention to the role of constructive alignment between curriculum design and future-oriented competencies in how students interpret career-related risk (Biggs & Tang, 2011).

The findings further indicate that the expansion of career pathways associated with the national transformation agenda (Saudi Vision 2030, 2016) did not automatically translate into greater clarity or confidence. Although participants were aware of emerging career pathways, many found it difficult to determine how they might position themselves within them. This broader pattern resonates with research addressing rapid educational change in Saudi Arabia (Alghamdi & Holland, 2020) and students' perceptions of shifting labor market conditions (Zidi & Al-Shallagi, 2024). The study adds an important qualification: awareness of an opportunity does not necessarily make it personally meaningful or attainable. Participants more readily understood emerging pathways when applied and contextually grounded learning experiences enabled them to consider their relevance and feasibility (Kolb, 2015).

A related insight concerns the perceived disconnect between academic preparation and occupational expectations.

Participants frequently described difficulty translating disciplinary knowledge into actionable career pathways. Their accounts suggest that curriculum functioned not only as a structure for organizing knowledge but also as a frame through which future possibilities were interpreted. Participants who encountered applied tasks, professional exposure, and structured opportunities for reflection reported clearer connections between their current studies and potential occupational roles. By contrast, abstract instruction with few explicit links to professional practice was associated with greater uncertainty. The issue, therefore, was not simply how much career information students received, but whether their academic experiences helped them interpret that information in relation to their capabilities and intended pathways. This finding adds to the work-integrated learning literature by locating employability not only in access to experience but also in how that experience is pedagogically structured and sustained (Jackson, 2015).

The study also offers a contextually specific elaboration of Social Cognitive Career Theory. SCCT emphasizes the importance of contextual supports and barriers in shaping career-related expectations and behavior (Lent et al., 2000). The present findings identify curriculum design and instructional interaction as salient components of that context. Within participants' accounts, instructional practices that offered feedback, procedural clarity, and opportunities for application were associated with stronger perceived capability. Fragmented or episodic support, in contrast, accompanied continuing uncertainty about how to evaluate and pursue available options. Confidence was therefore experienced not simply as an enduring personal belief but as a situated judgment formed in relation to the support and opportunities participants perceived around them.

From a narrative perspective, the findings also resonate with Career Construction Theory (Savickas, 2013). They add to this perspective by locating career-related narrative construction within students' curriculum experiences. Participants were not merely selecting occupations; they were attempting to build coherent connections among their academic identities, present experiences, and imagined futures. Those who described clearer and more coherent curriculum pathways were better able to articulate these connections, whereas fragmented or abstract learning experiences were associated with greater difficulty integrating academic knowledge with future aspirations.

Similarly, the findings extend the application of the Developmental Decision-Making Model (Germeijs & Verschueren, 2007) by suggesting that movement between exploration and commitment is related not only to individual readiness but also to opportunities embedded within curriculum and instruction. Participants who lacked sustained exposure to authentic occupational contexts often described difficulty progressing from general awareness to informed commitment. Structured opportunities for exploration, reflection, and application may therefore be important conditions supporting this progression.

Viewed across the four themes, the findings suggest a recursive rather than linear process. When participants perceived limited curricular support for translating academic content into occupational pathways, they more often interpreted expanding career opportunities as ambiguous or high-risk. Under these conditions, family expectations and social comparisons became prominent external criteria for evaluating acceptable choices. These relational influences could provide reassurance and strengthen perceived capability, but they could also narrow autonomy and heighten the perceived consequences of making a "wrong" decision.

Lower confidence was associated with avoidance, temporal deferral, or reliance on reassurance. Such responses may reduce immediate emotional pressure while limiting further exploration and professional exposure, thereby allowing uncertainty to persist. Conversely, applied learning, sustained advising, and constructive feedback were associated with more active information seeking and may offer points at which this recursive pattern can be interrupted. In SCCT terms, these findings suggest that contextual supports and barriers may become consequential through an interconnected process involving curriculum experience, relational validation, and perceived feasibility, rather than operating as separate external factors (Lent et al., 2000).

The operation of this process varied with participants' structural and experiential positions. Final-year students, participants with prior work experience, and those reporting stronger social or financial resources more often described converting career information into feasible plans. Those with limited networks or geographic mobility were more likely to experience similar opportunities as abstract or inaccessible. Family influence also played a dual role. It strengthened confidence when expressed through trust and encouragement, yet constrained exploration when particular occupations were presented as the only respectable options. This dual function is consistent with research showing that career decisions in collectivist contexts are negotiated through relational expectations rather than individual preference alone (Leong & Hardin, 2002; Markus & Kitayama, 1991; Triandis, 1995).

These patterns should not, however, be interpreted causally. Differences in engagement could also reflect prior academic achievement, self-selection into particular disciplines, or unequal access to resources before entering university. Considering the interview and observational evidence together lends credibility to the interpretation that

curriculum and instructional interactions are salient and potentially modifiable contextual influences. It does not establish them as the sole causes of career decision-making anxiety.

The findings have several direct pedagogical implications. At the program level, curriculum teams should map course learning outcomes onto discipline-specific career competencies and make explicit the relationships between academic content and plausible occupational pathways. At the course level, instructors can incorporate scenario-based career decisions, employer-developed or industry-linked projects, simulated workplace tasks, and assignments requiring students to compare career alternatives and justify their choices using labor-market information. Structured reflection activities, including skills audits, career journals, and e-portfolios, can help students identify evidence of their developing competencies and connect academic experiences with future goals. To provide continuity, these activities should be integrated into course requirements and assessment criteria rather than offered only through optional or isolated career workshops.

Academic advising should likewise be organized around key transition points, including entry into the program, selection of a specialization, preparation for internships, and the final year before graduation. At each stage, students could develop and periodically review an individual career action plan identifying intended pathways, competency gaps, sources of occupational information, and achievable short-term actions. Universities should also establish sustained partnerships with alumni, employers, and professional bodies to provide mentoring, discipline-specific career cases, workplace visits, internships, and feedback on student projects. At regional campuses such as Al-Qunfudhah, where physical access to employers and specialized opportunities may be limited, virtual mentoring, online employer sessions, and remotely supervised industry projects can expand students' professional exposure without requiring frequent geographic mobility. Collectively, these strategies would position career development as a recurring component of curriculum, instruction, assessment, and academic advising rather than as a peripheral service (Bridgstock, 2009; Jackson, 2016).

An important limitation is the study's exclusive focus on male students. In the Al-Qunfudhah context, gender segregation operated not only as a sociocultural condition but also as a methodological and structural feature of the study. Female students were taught in separate facilities, and the access arrangements available to the male researcher did not permit equivalent naturalistic observations in female classrooms, advising settings, or academic events.

Male and female students also did not have equivalent local program options. At the time of data collection, Construction Engineering and Industrial Engineering were available to male students at the branch, whereas the local technical options available to female students were located within computing rather than engineering. The Emergency Medical Services program represented in the male sample was likewise available only to male students. The local availability of engineering and emergency medical programs therefore provided male students with educational pathways into particular occupational sectors. Female students seeking comparable pathways might need to choose an alternative program or study outside the branch. Geographic mobility, family circumstances, and financial resources may consequently carry different implications for male and female students.

Gendered occupational expectations may also position fields such as engineering and nursing as more socially typical for one gender than the other, potentially narrowing the options perceived as acceptable or attainable (Al-Asfour et al., 2017; Aldossari, 2025). Because female students were not included, these mechanisms could not be examined empirically and should be understood as contextually grounded propositions rather than findings of the present study. Future research should prioritize direct comparisons between male and female students using gender-matched research teams, equivalent observation protocols across gender-segregated campuses, and matched disciplinary samples from regional and urban universities.

Additional limitations arise from the study's single-institution setting, cross-sectional design, and primary reliance on participants' self-reported accounts. The single setting limits the transferability of the findings, while the cross-sectional design precludes conclusions about change over time. Although the observations provided valuable contextual evidence, the interviews remained the primary source for interpreting participants' experiences.

Future research could adopt a multisite longitudinal mixed-methods design that follows matched male and female cohorts from regional and urban universities. The same participants could be assessed at program entry, before internships or specialization, during the final year, and 6 to 12 months after graduation. Repeated interviews and standardized measures could examine changes in career decision-making anxiety, self-efficacy, career adaptability, and perceived curriculum support. Equivalent observations across gender-segregated campuses could be conducted by gender-matched researchers where feasible. Comparisons among students from similar disciplines would help clarify the relative contributions of gender, curriculum exposure, institutional context, and geographic mobility, while longitudinal analysis could examine whether earlier educational experiences predict subsequent career clarity,

internship participation, relocation decisions, and transitions into employment.

7. Conclusion and Implications

This study conceptualizes career decision-making anxiety among male students at a regional Saudi university campus as a contextually and educationally mediated experience rather than solely an individual psychological condition. Within a rapidly changing socioeconomic context, participants' accounts indicated that career uncertainty emerged through interactions among structural conditions, relational expectations, perceived capability, and curriculum and instructional experiences.

Participants did not respond to uncertainty uniformly. Greater clarity, confidence, and purposeful engagement were reported when curriculum pathways were coherent and academic learning was connected to applied and occupational contexts. By contrast, abstract or weakly contextualized learning experiences were associated with greater difficulty translating academic knowledge into action, as well as with hesitation, postponement, and restricted engagement.

Perceived alignment between academic programs and labor market opportunities was central to how participants developed a sense of direction. Curriculum design and instructional practice formed part of the interpretive context through which students evaluated the relevance, feasibility, and accessibility of future pathways. Career preparation should therefore involve more than the provision of occupational information; it should also help students connect that information with their academic experiences, developing capabilities, and personal circumstances.

These findings support embedding career development within curriculum and instruction through applied learning, professional exposure, structured reflection, and sustained guidance. Practical approaches include aligning course learning outcomes with career-relevant competencies, integrating scenario-based problems and industry-linked projects into courses, and incorporating structured career planning into academic advising.

Career decision-making anxiety should therefore not be treated only as a deficit to be reduced. Within this study, it represented a meaningful response to complex and evolving educational, relational, and occupational conditions. When accompanied by coherent curriculum pathways, responsive teaching, and sustained guidance, career uncertainty may be approached through more reflective, informed, and adaptive engagement rather than through hesitation or withdrawal.

References

- Adams, M. J. D., & Umbach, P. D. (2012). Nonresponse and online student evaluations of teaching: Understanding the influence of salience, fatigue, and academic environments. *Research in Higher Education*, 53(5), 576–591. <https://doi.org/10.1007/s11162-011-9240-5>
- Al-Asfour, A., Tlaiss, H. A., Khan, S. A., & Rajasekar, J. (2017). Saudi women's work challenges and barriers to career advancement. *Career Development International*, 22(2), 184–199. <https://doi.org/10.1108/CDI-11-2016-0200>
- Aldossari, A. S. (2025). Women's empowerment: New paradigm shift in Saudi women's decision-making and choice of university majors. *Humanities and Social Sciences Communications*, 12, Article 623. <https://doi.org/10.1057/s41599-025-04978-7>
- Alghamdi, J., & Holland, C. (2020). A comparative analysis of policies, strategies and programmes for information and communication technology integration in education in the Kingdom of Saudi Arabia and the Republic of Ireland. *Education and Information Technologies*, 25(6), 4721–4745. <https://doi.org/10.1007/s10639-020-10169-5>
- Argaam. (2024, October 22). 2024 sees foray of 364,000 citizens into labor market: HRSD minister. Retrieved from <https://www.argaam.com/en/article/articledetail/id/1762362>
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Prentice-Hall.
- Berger, R. (2015). Now I see it, now I don't: Researcher's position and reflexivity in qualitative research. *Qualitative Research*, 15(2), 219–234. <https://doi.org/10.1177/1468794112468475>
- Biggs, J., & Tang, C. (2011). *Teaching for quality learning at university: What the student does* (4th ed.). Open University Press.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp0630a>

- Braun, V., & Clarke, V. (2021). *Thematic analysis: A practical guide*. SAGE.
- Bridgstock, R. (2009). The graduate attributes we've overlooked: Enhancing graduate employability through career management skills. *Higher Education Research & Development*, 28(1), 31–44. <https://doi.org/10.1080/07294360802444347>
- Brown, P., & Hesketh, A. (2004). *The mismanagement of talent: Employability and jobs in the knowledge economy*. Oxford University Press.
- Cabras, C., Guglielmi, D., Depolo, M., & Argentero, P. (2022). Career indecision and psychological well-being: The moderating role of career adaptability. *Frontiers in Psychology*, 13, Article 836245. <https://doi.org/10.3389/fpsyg.2022.836245>
- Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). SAGE.
- Egbaria, H. (2023). Emotional intelligence and its relationship to the career decision making difficulties among Israeli Palestinian high school students. *European Journal of Social Sciences Studies*, 8(6), 37–53. <https://doi.org/10.46827/ejsss.v8i6.1480>
- Egbaria, H. (2025). The effect of grit and mental well-being in predicting career decision-making difficulties of Arab high school students. *International Journal of Multidisciplinary and Current Educational Research*, 7(1), 204–213. Retrieved from https://www.ijmcer.com/wp-content/uploads/2025/02/IJMCE_S0710204213.pdf
- Gati, I., Krausz, M., & Osipow, S. H. (1996). A taxonomy of difficulties in career decision making. *Journal of Counseling Psychology*, 43(4), 510–526. <https://doi.org/10.1037/0022-0167.43.4.510>
- General Authority for Statistics. (2023a). *Labor market statistics Q2, 2023*. Retrieved from <https://www.stats.gov.sa/en/w/labor-market-statistics-q2-2023>
- General Authority for Statistics. (2023b). *Saudi youth statistics report 2023*. Retrieved from <https://www.stats.gov.sa/documents/d/guest/saudi-youth-statistics-en-pdf>
- Germeijs, V., & Verschueren, K. (2007). High school students' career decision-making process: Consequences for choice implementation in higher education. *Journal of Vocational Behavior*, 70(2), 223–241. <https://doi.org/10.1016/j.jvb.2006.10.004>
- He, M., Li, Y., Hu, H., Yu, Z., Cai, C., Cheng, Y., Ma, L., & Liu, S. (2024). The relationship between impostor phenomenon and career decision-making difficulties among nursing interns: The mediating role of psychological resilience. *Frontiers in Psychology*, 15, Article 1484708. <https://doi.org/10.3389/fpsyg.2024.1484708>
- Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions, and organizations across nations* (2nd ed.). SAGE.
- International Labour Organization. (2022a). *Global employment trends for youth 2022: Investing in transforming futures for young people*. Retrieved from <https://www.ilo.org/publications/major-publications/global-employment-trends-youth-2022-investing-transforming-futures-young>
- International Labour Organization. (2022b). *Global employment trends for youth 2022: The Arab States*. Retrieved from <https://www.ilo.org/resource/brief/global-employment-trends-youth-2022-arab-states>
- Jackson, D. (2015). Employability skill development in work-integrated learning: Barriers and best practice. *Studies in Higher Education*, 40(2), 350–367. <https://doi.org/10.1080/03075079.2013.842221>
- Jackson, D. (2016). Re-conceptualising graduate employability: The importance of pre-professional identity. *Higher Education Research & Development*, 35(5), 925–939. <https://doi.org/10.1080/07294360.2016.1139551>
- Jadwa Investment. (2025, April 29). *Saudi labor market update—2024*. Retrieved from <https://www.jadwa.com/sites/default/files/2025-04/Saudi%20labor%20market%20update%20-%202024.pdf>
- Kim, Y.-H., & Choi, N.-Y. (2019). Career decision self-efficacy of Asian American students: The role of curiosity and ethnic identity. *The Career Development Quarterly*, 67(1), 32–46. <https://doi.org/10.1002/cdq.12161>
- Kolb, D. A. (2015). *Experiential learning: Experience as the source of learning and development* (2nd ed.). Pearson Education.
- Lent, R. W., Brown, S. D., & Hackett, G. (2000). Contextual supports and barriers to career choice: A social cognitive analysis. *Journal of Counseling Psychology*, 47(1), 36–49. <https://doi.org/10.1037/0022-0167.47.1.36>

- Leong, F. T. L., & Hardin, E. E. (2002). Career psychology of Asian Americans: Cultural validity and cultural specificity. In G. C. N. Hall & S. Okazaki (Eds.), *Asian American psychology: The science of lives in context* (pp. 131–152). American Psychological Association. <https://doi.org/10.1037/10473-005>
- Leung, S. A., Hou, Z. J., Gati, I., & Li, X. (2011). Effects of parental expectations and cultural–values orientation on career decision–making difficulties of Chinese university students. *Journal of Vocational Behavior*, 78(1), 11–20. <https://doi.org/10.1016/j.jvb.2010.08.004>
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. SAGE.
- Lumivero. (2023). *NVivo* (Version 14) [Computer software]. Retrieved from <https://lumivero.com/products/nvivo/>
- Malterud, K., Siersma, V. D., & Guassora, A. D. (2016). Sample size in qualitative interview studies: Guided by information power. *Qualitative Health Research*, 26(13), 1753–1760. <https://doi.org/10.1177/1049732315617444>
- Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, 98(2), 224–253. <https://doi.org/10.1037/0033-295X.98.2.224>
- Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). Thematic analysis: Striving to meet the trustworthiness criteria. *International Journal of Qualitative Methods*, 16(1), 1–13. <https://doi.org/10.1177/1609406917733847>
- Pang, L., Wang, X., Liu, F., Fang, T., Chen, H., & Wen, Y. (2021). The relationship between college students’ resilience and career decision–making difficulties: The mediating role of career adaptability. *Psychology*, 12(6), 872–886. <https://doi.org/10.4236/psych.2021.126053>
- Patton, M. Q. (2015). *Qualitative research & evaluation methods: Integrating theory and practice* (4th ed.). SAGE.
- Saudi Vision 2030. (2016). *Vision 2030 Kingdom of Saudi Arabia*. Council of Economic and Development Affairs. Retrieved from <https://www.vision2030.gov.sa>
- Savickas, M. L. (2013). Career construction theory and practice. In S. D. Brown & R. W. Lent (Eds.), *Career development and counseling: Putting theory and research to work* (2nd ed., pp. 147–183). Wiley.
- Smith, C., Ferns, S., Russell, L., & Cretchley, P. (2014). *The impact of work integrated learning on student work–readiness: Final report*. Office for Learning and Teaching. Retrieved from <https://hdl.handle.net/20.500.11937/55398>
- Tomlinson, M. (2017). Forms of graduate capital and their relationship to graduate employability. *Education + Training*, 59(4), 338–352. <https://doi.org/10.1108/ET-05-2016-0090>
- Triandis, H. C. (1995). *Individualism and collectivism*. Westview Press.
- World Medical Association. (2013). World Medical Association Declaration of Helsinki: Ethical principles for medical research involving human subjects. *JAMA*, 310(20), 2191–2194. <https://doi.org/10.1001/jama.2013.281053>
- Xu, M., Lu, H., Fu, J., Zhu, H., & Zhao, Y. (2025). The relationship between basic psychological needs satisfaction and career adaptability among university students: The roles of grit and career decision–making self–efficacy. *Behavioral Sciences*, 15(2), Article 167. <https://doi.org/10.3390/bs15020167>
- Yasin, Y. M., Alomari, A., MacNevin, S., Kmainasi, B., Abdulla, M., & Hassanin, S. (2024). From decision to destination: Factors influencing healthcare students’ career paths in Qatar. *BMC Medical Education*, 24, Article 1522. <https://doi.org/10.1186/s12909-024-06527-3>
- Zhou, A., Liu, J., Xu, C., & Jobe, M. C. (2024). Effect of social support on career decision–making difficulties: The chain mediating roles of psychological capital and career decision–making self–efficacy. *Behavioral Sciences*, 14(4), Article 318. <https://doi.org/10.3390/bs14040318>
- Zidi, M. I., & Al–Shallagi, T. L. (2024). Saudi social work students’ perceptions of future career: A quantitative and qualitative research in light of changes in the labor market and social representations of jobs. *International Journal of Advanced and Applied Sciences*, 11(2), 41–49. <https://doi.org/10.21833/ijaas.2024.02.006>

Author Statements

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Author Contributions

Both authors jointly contributed to conceptualization, methodology, investigation, formal analysis, writing – original draft, and writing – review & editing.

Consent for Publication

Both authors have read and approved the final manuscript and consent to its publication.

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Informed consent was obtained from all participants.

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Data Availability Statement

The data underlying this study are not publicly available due to participant confidentiality and privacy considerations.

Use of Artificial Intelligence

The authors used ChatGPT to assist with English-language editing and stylistic refinement after peer review. The tool was not used to generate or analyze the study's original empirical data. All suggested language revisions were critically reviewed and approved by the authors, who assume full responsibility for the final content.

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