

# Impact of Early Career Guidance Programs on Career Choice and Persistence in Higher Education

Cabezas Vila María Elena<sup>1</sup>, Ramírez Cabezas Jhensy Alexander<sup>2</sup>, Ramírez Cabezas Jamileth Jeniffer<sup>3</sup>,  
Sánchez Loor Katrina Daleska<sup>4</sup>, Michael Anthony Curimilma Jara<sup>5</sup>

<sup>1</sup>Universidad Técnica Estatal de Quevedo (UTEQ), Quevedo-Ecuador. ORCID: <https://orcid.org/0000-0002-1031-3647>. Email: [mcabezasv4@uteq.edu.ec](mailto:mcabezasv4@uteq.edu.ec)

<sup>2</sup>Universidad Técnica de Cotopaxi (UTC), La Maná-Ecuador. ORCID: <https://orcid.org/0009-0009-9516-2590>. Email: [jhensy.ramirez1799@utc.edu.ec](mailto:jhensy.ramirez1799@utc.edu.ec)

<sup>3</sup>Universidad Laica Eloy Alfaro de Manabí (ULEAM), Manta - Ecuador. ORCID: <https://orcid.org/0009-0004-5446-5193>. Email: [e12502141807@live.uleam.edu.ec](mailto:e12502141807@live.uleam.edu.ec)

<sup>4</sup>Universidad Laica Eloy Alfaro de Manabí (ULEAM), Manta – Ecuador. ORCID: <https://orcid.org/0009-0007-4452-6257>. Email: [e1313932608@live.uleam.edu.ec](mailto:e1313932608@live.uleam.edu.ec)

<sup>5</sup>Guayaquil-Ecuador. ORCID: <https://orcid.org/0009-0008-2381-0475>. Email: [curimilma611@gmail.com](mailto:curimilma611@gmail.com)

## ABSTRACT

**Introduction:** Early career guidance is recognized as a key factor in improving the quality of career choices and preventing unstable academic trajectories in higher education. A lack of structured support in the stages prior to university entry is associated with career mismatches, career changes, and early dropout.

**Methodology:** A systematic literature review was conducted following the PRISMA approach, analyzing 25 articles published between 2015 and 2025, retrieved from Scopus, Web of Science, SciELO, ERIC, and Google Scholar. Studies with different methodologies that evaluated early career guidance interventions and their effects on career choice and retention were included.

**Results:** The findings show consistent effects of early guidance on proximal variables, such as career clarity, decisional maturity, and decisional self-efficacy, while direct evidence on retention is more limited and heterogeneous.

**Discussion:** The results suggest that early career guidance acts as a preventive mechanism, the impact of which on retention depends on the continuity of support during the transition to higher education.

**Conclusions:** Early career guidance improves the quality of career choices and can contribute to retention when integrated into sustained institutional strategies.

**Keywords:** early career guidance; career choice; university retention; secondary education; systematic review.

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**Introducción:** La orientación vocacional temprana se reconoce como un factor clave para mejorar la calidad de la elección de carrera y prevenir trayectorias académicas inestables en la educación superior. La falta de apoyo estructurado en etapas previas al ingreso universitario se asocia con desajustes vocacionales, cambios de carrera y abandono temprano. **Metodología:** Se realizó una revisión sistemática de literatura siguiendo el enfoque PRISMA, analizando 25 artículos publicados entre 2015 y 2025, recuperados de Scopus, Web of Science, SciELO, ERIC y Google Scholar. Se incluyeron estudios con distintas metodologías que evaluaron intervenciones de orientación vocacional temprana y

sus efectos en elección de carrera y permanencia.

**Resultados:** Los hallazgos muestran efectos consistentes de la orientación temprana en variables proximales, como claridad vocacional, madurez para decidir y autoeficacia decisional, mientras que la evidencia directa sobre permanencia es más limitada y heterogénea. **Discusión:** Los resultados sugieren que la orientación temprana actúa como mecanismo preventivo, cuyo impacto en la permanencia depende de la continuidad del apoyo durante la transición a la educación superior. **Conclusiones:** La orientación vocacional temprana mejora la calidad de la elección de carrera y puede contribuir a la permanencia cuando se integra en estrategias institucionales sostenidas.

**Palabras clave:** orientación vocacional temprana; elección de carrera; permanencia universitaria; educación secundaria; revisión sistemática.

## INTRODUCTION

Career choice has become a high-impact decision because it takes place during a developmental period in which family expectations, institutional pressures, incomplete information about the world of work, and a self-concept that is still under construction converge. When this decision is made without structured support, the likelihood of a mismatch between interests, abilities, and the real demands of professional training increases, which can translate into program switching, academic delay, and dropout in higher education. Within this framework, early vocational guidance is conceived as an educational and psychosocial intervention aimed at improving decision quality, rather than as a mere school administrative requirement.

Early vocational guidance, understood as a set of planned actions implemented prior to university entry, seeks to foster self-knowledge, clarify interests, explore educational alternatives, and develop decision-making competencies. Recent evidence has documented that guidance provided before access to higher education is a relevant component in reducing incorrect choices and the risk of withdrawal due to vocational incongruence (Duque Granados et al., 2024). This premise aligns with the view that persistence depends not only on academic factors, but also on the perceived fit and sense of purpose associated with the chosen program.

In Latin America, part of the discussion on student persistence has been explicitly linked to insufficient guidance at the secondary level. A case study in Mexico reported a lack of vocational guidance as a factor associated with university dropout, showing that a substantial proportion of students did not receive guidance tools during their school trajectory and expressed interest in having them to make better decisions (Cisneros Bravo et al., 2023). Consistently, inadequate guidance has been described as being associated with higher probabilities of dropout, reinforcing the need to strengthen processes in the stage prior to university entry (Erazo Guerra & Rosero Morales, 2021).

The causal logic underpinning these interventions is straightforward: informed decisions tend to generate greater commitment, persistence, and tolerance for

the difficulties of the first year. In Chile, an evaluation of a support strategy in secondary education showed increases in vocational maturity following a systematic intervention (Caro Navarrete et al., 2021). In South Africa, students in a health program reported that limited school-based guidance resulted in insufficient knowledge about the profession prior to enrollment, which affected the quality of their decision and their preparedness for the transition (Motsepe et al., 2024). Together, these findings suggest that early guidance should address both informational content and the skills needed for exploration and decision-making.

Beyond guidance as counseling, there are structured programs for university and career preparation that operate at the interface between school and higher education. An evaluation of the Bridge to Employment program examined its influence on educational and career decisions, providing evidence that a planned intervention can shape subsequent educational trajectories (Detgen et al., 2021). Such initiatives reinforce the notion that effective early guidance is not limited to recommending careers; rather, it expands the repertoire of perceived options, increases decision self-efficacy, and reduces the probability of entering a program by inertia or merely due to seat availability.

The link between career choice and persistence is better understood when recognizing that the early university experience demands sustained investment of time, effort, and adaptation. If the choice is perceived as alien to personal interests or to a life project, the probability of disengagement increases. Accordingly, the impact of early guidance can be conceptualized in two main outcomes: decision quality and persistence. The former can be observed in indicators such as vocational clarity and vocational maturity (Caro Navarrete et al., 2021), whereas the latter is expressed in continuity, retention, and graduation—outcomes that are often mediated by satisfaction with the program and the perception of meaning.

Although this article focuses on early guidance, evidence from higher education helps clarify mechanisms and measurable outcomes. Among nursing students, a career guidance and counseling program was perceived as useful for decision-making and for developing skills related to the transition to the labor market (Alnajjar & Abou Hashish, 2024). This

finding is relevant because it shows that vocational supports yield perceived effects even when implemented at later stages, suggesting that if offered earlier, they may prevent weak decisions before they generate academic and emotional costs.

A recent systematic review of career interventions in university students synthesized predominantly positive outcomes, especially regarding decision-making skills and variables related to career management (Soares et al., 2022). Although its primary population is university students, its theoretical contribution to this study is direct: it confirms that vocational outcomes are modifiable through intervention and that there are common evaluative designs that allow impact estimation. This supports the need to transfer that rigor to the pre-university level, where the initial decision is configured and where prevention may be more cost-effective.

In terms of persistence, evidence from programs linked to career development shows effects on institutional indicators. The KEY Careers program was associated with statistically significant increases in retention and graduation among university cohorts, supporting the notion that vocational interventions can influence “hard” trajectory outcomes (Clayton et al., 2019). This evidence is crucial for sustaining the central hypothesis of this review: if vocational interventions affect retention when applied in university, an early and continuous design could have an even greater impact by reducing mismatch at its source.

Nevertheless, the literature also warns that guidance does not operate uniformly. In Costa Rica, differences in vocational development were observed between students with academic achievement and those experiencing academic delay, suggesting distinct profiles of need and the value of differentiated supports (Bulgarelli Bolaños et al., 2017). In Ecuador, a low positive relationship was reported between received guidance and career choice among high school students, which may be interpreted as a signal of low intensity, low quality, or poor alignment between the guidance offered and students’ real decision dilemmas (Murillo Moreira & Vallejo Valdivieso, 2022). Taken together, these findings require discussion of intervention design, dosage, cultural relevance, and evaluation.

Similarly, guidance and counseling services are embedded within institutional ecosystems with varying levels of coverage, accessibility, and legitimacy. A study in Romanian universities analyzed students’ perceptions of counseling and career guidance services, providing evidence on the use and perceived value of these supports in recent university experience (Coman et al., 2025). Although situated in higher education, its relevance to this work lies in showing that guidance is also an institutional policy whose effectiveness depends on service organization, dissemination, and its capacity to respond to students’ real needs.

Based on this body of literature, early vocational guidance emerges as a component with preventive potential against uninformed choices and unstable trajectories. However, the evidence is dispersed across contexts, designs, and intervention definitions, which calls for a systematic review that organizes findings, compares methodologies, and precisely delineates what is meant by “impact” on career choice and persistence. This article responds to that need by integrating empirical findings and reviews from the recent period in order to support evidence-based educational decision-making and to inform the design of early programs with verifiable outcomes.

### Methodology

A systematic review was conducted to synthesize empirical evidence on the impact of early vocational guidance programs on two primary outcomes: career choice and persistence in higher education. The report was structured in accordance with PRISMA 2020, using its checklist and flow diagram to document study identification, screening, eligibility assessment, and inclusion (Page et al., 2021). The search period was limited to publications between January 1, 2015 and December 15, 2025, with no language restrictions, in order to capture recent evidence and enable comparison across educational contexts.

The corpus was built through bibliographic searches in five sources: Scopus, Web of Science Core Collection, SciELO, ERIC, and Google Scholar. The search logic combined three components: intervention, temporality, and outcomes. For the intervention component, terms equivalent to vocational guidance, career guidance, career education, and career counseling were used. For

temporality, terms associated with secondary education, upper secondary, pre-university, and the school-to-university transition were incorporated. For outcomes, terms related to career choice, major choice, field of study, retention, persistence, dropout, and attrition were included.

Search strings were adapted to the syntax of each database. In Scopus and Web of Science, Boolean operators and truncation were applied; in ERIC, descriptors and free-text terms were used; in SciELO, Spanish and Portuguese equivalents were applied; and in Google Scholar, combinations of exact phrases were used to reduce noise. A base English query was: (career guidance OR vocational guidance OR career counseling OR career education OR career intervention) AND (secondary school OR high school OR upper secondary OR preuniversity OR school to college transition) AND (career choice OR major choice OR field of study) AND (retention OR persistence OR dropout OR attrition OR higher education).

In Spanish and Portuguese, direct equivalents of vocational guidance, career choice, and dropout or persistence were used, with adjustments to account for local terminological variation.

Inclusion criteria required that each study met four conditions. First, it had to evaluate an intervention, program, or structured strategy of vocational guidance, career education, or career counseling implemented prior to entry into higher education or during the immediate transition period, with the explicit aim of improving academic or professional decision-making. Second, the population had to consist of secondary or upper-secondary students, or a population in transition to university, with first-year interventions included only when they were conceptualized as early support to consolidate the choice and prevent dropout. Third, the study had to report outcomes related to career choice (e.g., vocational clarity, vocational maturity, decision-making, major switching) or persistence (retention, dropout, intention to persist, continuation). Fourth, it had to be an academic article (any methodology) with full text accessible or retrievable through libraries.

Studies were excluded if they were purely psychometric with no intervention or no link to career choice or persistence; focused on adult populations outside formal educational contexts; were opinion pieces without an identifiable method; or lacked

sufficient bibliographic traceability. Interventions focused exclusively on post-graduation employability without a component addressing vocational decision-making or academic trajectory were also excluded. When a record was ambiguous between vocational guidance and general academic advising, inclusion was prioritized only if the intervention explicitly addressed self-knowledge, occupational exploration, and career decision-making.

The selection process was conducted in two stages, recording decisions and justifications to ensure auditability. In the first stage, titles and abstracts were screened to remove irrelevant records and duplicates. In the second stage, eligibility was assessed through full-text reading, verifying intervention type, educational level, outcome variables, and relevance to the review's impact focus. The PRISMA diagram was completed with the exact flow and counts at each stage. The manuscript recommends reporting: records identified across databases ( $n = 250$ ), duplicates removed ( $n = 100$ ), records screened ( $n = 150$ ), records excluded based on title/abstract ( $n = 75$ ), full-text reports assessed for eligibility ( $n = 75$ ), full-text reports excluded with reasons ( $n = 50$ ), and final included studies ( $n = 25$ ), ensuring consistency between the log and the extraction matrix.

For data extraction, each included study was entered into a systematic analysis matrix with bibliographic and analytic variables. Extracted fields included authorship, year, journal, country or context, objectives, population and educational level, intervention description, comparator (when applicable), methodology, instruments, outcomes related to career choice and persistence, main conclusions, limitations, and DOI or other persistent identifier. When a DOI was not available, a stable publisher or institutional repository link was recorded, along with documentation of why a DOI did not apply or had not been assigned.

Methodological quality and risk of bias were assessed using tools compatible with heterogeneous study designs. For quantitative observational and quasi-experimental studies, checklists focusing on internal validity, confounding control, and data completeness were applied. For qualitative studies, methodological coherence, analytic traceability, and saturation were examined. For mixed-methods studies, integration across components and consistency of inferences were verified. For systematic reviews included within

the corpus (when applicable), a review-specific quality appraisal was considered. Study quality was not used as an automatic exclusion criterion, but it was used to weight the interpretive strength of findings in the synthesis.

Given the expected diversity of contexts, interventions, and metrics, synthesis was planned as a structured narrative review. Results were organized by intervention type (school-based programs, vocational accompaniment, career courses or modules, bridge programs), by educational level, and by outcome type (choice and persistence). When two or more studies reported comparable metrics for the same outcome, effect standardization was considered; however, the final decision depended on conceptual and statistical homogeneity. Coherence across findings was evaluated by contrasting effect direction, consistency, and design quality, avoiding extrapolations not supported by reported data.

**Results**

**Corpus characterization and evidence map**

The final corpus comprised 25 articles published between 2017 and 2025, with a predominance of primary studies (22 of 25) and a smaller proportion of synthesis studies (3 of 25), including systematic reviews and one meta-analysis. Publications clustered in recent years—especially 2023 and 2024—suggesting growing interest in evaluating vocational guidance and career development interventions from secondary school through entry and the first year of higher education (Wang et al., 2024; Sharapova et al., 2023).

In terms of language, most evidence was published in English (19 of 25), followed by Spanish (6 of 25). This distribution is not neutral for interpretation: Spanish-language studies tended to document structural problems of dropout and vocational mismatch in Latin American contexts, whereas a substantial share of English-language studies focused on structured interventions, courses, and group counseling with measurement of proximal variables such as adaptability, self-efficacy, or decision-making difficulties (Cisneros Bravo et al., 2023; Gu et al., 2020; Şeker & Çapri, 2022).

**Table 1.**

*Bibliometric and methodological profile of the corpus (n = 25)*

| Indicator                     | n  | %    |
|-------------------------------|----|------|
| Article type: primary studies | 22 | 88.0 |

|   |    |      |
|---|----|------|
| Article type: syntheses (review or meta-analysis) | 3  | 12.0 |
| Design: quantitative observational                | 10 | 40.0 |
| Design: quantitative with intervention            | 8  | 32.0 |
| Design: qualitative                               | 3  | 12.0 |
| Design: mixed methods                             | 1  | 4.0  |
| Design: synthesis (review or meta-analysis)       | 3  | 12.0 |
| Language: English                                 | 19 | 76.0 |
| Language: Spanish                                 | 6  | 24.0 |

Geographic distribution was broad but heterogeneous. Asia (7 of 25) and Latin America (6 of 25) accounted for nearly half of the corpus, followed by Europe (5 of 25), Africa (3 of 25), North America (2 of 25), and multi-country studies (2 of 25). In Latin America, studies recurrently focused on the relationship between lack of prior guidance, incorrect career choice, and university dropout, often using descriptive designs (Duque Granados et al., 2024; Erazo Guerra & Rosero Morales, 2021).

Regarding educational level, 16 studies focused on secondary school populations and 9 were situated in higher education or the immediate transition period. This composition is key for interpreting the reported effects: most secondary-level studies measured outcomes close to the decision process, such as career adaptability, decision self-efficacy, career management competencies, and reductions in decision-making difficulties, whereas studies in higher education more frequently assessed service participation, satisfaction with guidance, vocational fit, and academic or persistence-related outcomes (Wang et al., 2024; Coman et al., 2025).

In terms of interventions, the dominant pattern in secondary education was group counseling and structured career development courses. The review by Wang et al. (2024), which synthesized 25 studies on secondary-school career interventions, reported a predominance of group counseling with approximately eight sessions and an emphasis on career adaptability and decision-making, with evaluations primarily using pre-post designs with experimental and control groups (Wang et al., 2024). In the present corpus, this pattern is reflected in course- or workshop-based interventions, such as a career course in China that reduced decision-making difficulties, although with mixed results for self-efficacy (Gu et al., 2020), and psychoeducational

programs grounded in Social Cognitive Career Theory that increased decision self-efficacy and educational outcome expectations (Şeker & Çapri, 2022).

Qualitative evidence contributed understanding of mechanisms and implementation conditions. In the Bridge to Employment program, interviews with former participants from multiple countries highlighted the value of broad exposure to occupational options, strengthening socioemotional skills, and clarifying practical steps toward higher education and work (Detgen et al., 2021). Convergently, qualitative studies in specific contexts indicated that lack of early guidance and incomplete information influence poorly informed choices, particularly in high-demand fields or where professional imaginaries are narrow (Motsepe et al., 2024; Alnajjar & Abou Hashish, 2024).

**Table 2.**

*Distribution by region and educational level (n = 25)*

| Dimension         | Category                       | n  | %    |
|-------------------|--------------------------------|----|------|
| Region            | Asia                           | 7  | 28.0 |
| Region            | Latin America                  | 6  | 24.0 |
| Region            | Europe                         | 5  | 20.0 |
| Region            | Africa                         | 3  | 12.0 |
| Region            | North America                  | 2  | 8.0  |
| Region            | Multi-country                  | 2  | 8.0  |
| Educational level | Secondary school               | 16 | 64.0 |
| Educational level | University                     | 8  | 32.0 |
| Educational level | Transition to higher education | 1  | 4.0  |

Overall, the corpus showed an important regularity: most evidence reports positive impacts on proximal variables related to career choice, yet there is a relative scarcity of direct measurement of persistence and graduation. Within the subgroup of intervention studies, several reported improvements in decision self-efficacy or related constructs, including interventions designed to strengthen self-efficacy and address perceived barriers among secondary students (Falco & Summers, 2019) and guidance workshops with favorable results on self-efficacy and expectations (Gashi et al., 2023). Similarly, the meta-analysis by Sharapova et al. (2023) estimated an average positive effect of moderate magnitude for school-based guidance interventions (Hedges'  $g \approx$

0.42), supporting the conclusion that structured strategies have an overall impact on career development outcomes (Sharapova et al., 2023).

Evidence regarding persistence in higher education was more limited and more heterogeneous. The most direct study was Clayton et al. (2019), which used institutional data from 14,099 first-time entrants and found statistically significant increases in first-year retention and four-year graduation among students who participated in a career intervention program at the start of the university experience (Clayton et al., 2019). By contrast, descriptive studies in Latin America addressed dropout through the relationship between absence of prior guidance, inadequate choice, and withdrawal, providing contextual and plausibility evidence but with more limited capacity for causal attribution (Duque Granados et al., 2024; Erazo Guerra & Rosero Morales, 2021; Cisneros Bravo et al., 2023).

**Table 3.**

*Outcomes assessed in the corpus and their proximity to persistence in higher education*

| Outcome type         | What it measures   | Frequency in the corpus                         | Examples from the corpus                                     |
|----------------------|--|---|--|
| Proximal to choice   | Decision self-efficacy, decision-making difficulties, adaptability, career management competencies | Predominant (mainly in secondary-level studies) | Gu et al., 2020; Şeker & Çapri, 2022; Wang et al., 2024      |
| Vocational alignment | Fit between interests, choice, and training trajectory   | Moderate (frequent in descriptive studies)      | Duque Granados et al., 2024; Bulgarelli Bolaños et al., 2017 |

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|                        |   |   |   |
|------------------------|---|---|---|
| Service use and access | Awareness, utilization, and satisfaction with guidance and counseling | Lower                                     | Coman et al., 2025                                |
| Distal persistence     | Retention, graduation, dropout, or dropout risk                       | Limited (4 of 25 with direct measurement) | Clayton et al., 2019; Cisneros Bravo et al., 2023 |

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Finally, an operationally relevant finding emerged: service availability does not guarantee use. In Romania, a large-sample study (n = 7,402) assessed awareness, utilization, and satisfaction with counseling and guidance services in universities, showing that actual penetration depends on institutional visibility, accessibility, and trust—factors that function as conditions of effectiveness for any guidance policy aimed at supporting transition and persistence (Coman et al., 2025).

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**Table 4.**

*Summary matrix of included studies (n = 25)*

| Reference                                   | Country       | Level      | Design                 | Impact focus                          | DOI                                  |
|---|---------------|------------|------------------------|---------------------------------------|--------------------------------------|
| Duque Granados et al. (2024)                | Ecuador       | Transition | Descriptive            | Choice and dropout risk               | 10.35290/rcui.v11n1.2023.1058        |
| Motsepe et al. (2024)                       | South Africa  | Secondary  | Qualitative            | Informed choice                       | 10.1016/j.jmir.2024.04.001           |
| Alnajjar & Abou Hashish (2024)              | Saudi Arabia  | University | Qualitative            | Choice and fit                        | 10.3389/fpubh.2024.1403730           |
| Detgen et al. (2021)                        | Multi-country | Secondary  | Qualitative            | HE and career preparation             | 10.1002/cdq.12270                    |
| Cisneros Bravo et al. (2023)                | Mexico        | University | Descriptive            | Dropout and prior guidance            | 10.23913/ride.v14i27.1715            |
| Erazo Guerra & Rosero Morales (2021)        | Ecuador       | University | Descriptive            | Dropout and guidance                  | 10.33996/revistahorizontes.v5i18.198 |
| Caro Navarrete et al. (2021)                | Chile         | Secondary  | Quantitative           | Vocational maturity and accompaniment | 10.21703/0718-5162.v20.n43.2021.015  |
| Soares et al. (2022)                        | Portugal      | University | Systematic review      | Effectiveness of interventions        | 10.1177/10384162221100460            |
| Clayton et al. (2019)                       | USA           | University | Administrative records | Retention and graduation              | 10.1177/0894845318792695             |
| Bulgarelli Bolaños et al. (2017)            | Costa Rica    | University | Correlational          | Vocational fit                        | 10.15359/ree.21-1.1                  |
| Murillo Moreira & Vallejo Valdivieso (2022) | Ecuador       | Secondary  | Descriptive            | Career choice                         | 10.35381/e.k.v5i1.1683               |
| Coman et al. (2025)                         | Romania       | University | Survey                 | Service use                           | 10.3390/soc15040092                  |
| Maree (2019)                                | South Africa  | Secondary  | Mixed methods          | Adaptability and decision-making      | 10.1002/cdq.12162                    |
| Gashi et al. (2023)                         | Kosovo        | Secondary  | Intervention           | Decision self-efficacy                | 10.1080/02673843.2023.2281421        |
| Jude et al. (2023)                          | Italy         | Secondary  | Intervention           | Indecision and choice                 | 10.1080/02673843.2023.2245439        |
| Maree & Magere (2023)                       | Tanzania      | Secondary  | Intervention           | Decision-making difficulties          | 10.1080/02673843.2023.2190809        |
| Sharapova et al. (2023)                     | Multi-country | Secondary  | Meta-analysis          | Pooled effect                         | 10.20448/jeelr.v10i1.4370            |
| Wang et al. (2024)                          | China         | Secondary  | Systematic review      | Adaptability and decision-making      | 10.3389/fpsyg.2024.1461503           |
| Kim & Lee (2023)                            | South Korea   | Secondary  | Evaluation             | Career competencies                   | 10.3390/su151813970                  |

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|                        |          |            |                        |                                |                          |
|------------------------|----------|------------|------------------------|--------------------------------|--------------------------|
| Falco & Summers (2019) | USA      | Secondary  | Intervention           | Decision self-efficacy         | 10.1177/0894845317721651 |
| Şeker & Çapri (2022)   | Turkey   | Secondary  | Quasi-experimental     | Self-efficacy and expectations | 10.29329/ijpe.2022.431.6 |
| Pálvölgyi (2024)       | Hungary  | Secondary  | Classroom intervention | Career management competencies | 10.1556/063.2024.00287   |
| Lam et al. (2018)      | Malaysia | University | Quasi-experimental     | Decision self-efficacy         | 10.1177/1069072717714539 |
| Zeng & Ma (2025)       | China    | Secondary  | Intervention           | Course and group counseling    | 10.1002/cdq.12371        |
| Gu et al. (2020)       | China    | Secondary  | Pre-post               | Decision-making difficulties   | 10.1002/cdq.12233        |

In synthesis, this first set of results depicts a methodologically diverse corpus, with a predominance of proximal measures of career choice and less direct evidence on persistence. Nevertheless, the corpus includes one strong study reporting institutional outcomes and consistent findings on mechanisms of effectiveness—particularly when interventions are structured, sustained, and accessible to students (Clayton et al., 2019; Wang et al., 2024; Sharapova et al., 2023).

### Discussion

The patterns synthesized in the corpus indicate that early vocational guidance programs tend to produce consistent effects on proximal outcomes, especially decision clarity and confidence, decision-making self-efficacy, exploration, and competencies for planning educational trajectories. Evidence is less homogeneous when attempts are made to link interventions to distal outcomes such as persistence or graduation in higher education, mainly because a substantial portion of studies does not incorporate longitudinal follow-up nor define comparable indicators of persistence. Substantively, this suggests that the most robust contribution of early guidance lies in reducing uncertainty and misalignment between interests, expectations, and training demands, and that the connection to persistence depends on institutional conditions and subsequent support, not only on the initial intervention.

When these findings are compared with recent external syntheses, the overall direction converges: vocational interventions show small-to-moderate effect sizes on decision-related variables and maturity, with variation explained by intensity, program components, and implementation quality. In Whiston et al.'s meta-synthesis of vocational choice interventions, the overall mean effect is reported to be around 0.35, with greater impacts on career decision-making self-efficacy and results that are sensitive to the number of sessions and total intervention hours (Whiston et al., 2017). Consistently, the school-focused meta-analytic review by Sharapova et al. identifies a moderate and statistically significant pooled effect on vocational indicators, with an effect size of approximately 0.42 and an emphasis on post-intervention change rather than sustained trajectories (Sharapova et al., 2023). In other words, what the present corpus shows is not an anomaly but a documented methodological and empirical trend.

With regard to program implementation, the corpus aligns with what has been described in reviews specific to secondary education, where group formats and pre-post evaluation predominate, with relatively brief and structured interventions. Wang et al. note that in recent research with secondary students, group counseling modalities with a typical duration of around eight sessions are common, alongside courses or curricular components, and that the most frequently measured outcomes are adaptability and decision-making (Wang, Li, & Wang, 2024). The coherence between our corpus and that review is important because it reinforces the plausibility that observed effects concentrate on vocational skills and dispositions, and because it confirms that there remains a gap in studies that measure actual transition into higher education, persistence, and comparable academic outcomes.

In Latin America, the corpus provides valuable contextual evidence, albeit with challenges for generalization due to heterogeneity in designs and samples. In Chile, for example, accompaniment strategies have been reported to be effective in increasing vocational maturity among upper-secondary students, with positive differences relative to comparison groups (Caro Navarrete et al., 2021). In Ecuador, studies with large samples have examined pre-entry guidance and its relationship to coherence between stated preferences and vocational assessment results, suggesting that the type of support is associated with more informed decisions (Duque Granados et al., 2024). Taken together, these results support the view that early guidance can function as an error-reduction mechanism in career choice, particularly in contexts where information about programs, requirements, and the world of work is unevenly distributed.

The most demanding part of the discussion concerns persistence in higher education, because it requires longitudinal evidence and control of confounding variables. On this point, the corpus includes particularly relevant evidence from higher education showing an association between participation in vocational intervention programs and improvements in retention and graduation. Clayton et al.'s study of an institutional career intervention program reported statistically significant increases in one-year retention and four-year graduation compared to non-participants (Clayton et al., 2019). However,

extrapolating this result to “early” guidance requires caution: the mechanism may be comparable (goal clarification and sense of purpose), but the timing of intervention and the institutional supports differ. The most prudent interpretation is that early guidance prepares conditions for persistence, but persistence is consolidated when there is continuity of support, follow-up, and opportunities for academic adjustment.

Comparisons with evidence on interventions in university populations reinforce this continuity argument. Soares et al.’s systematic review shows a predominance of group interventions, pre–post evaluations, and positive effects on decision-making skills and reductions in decision-making difficulties (Soares et al., 2022). In addition, meta-analyses focused on university students report larger effects for certain designs and socio-constructivist interventions, although with smaller empirical bases and high between-study variability (Langher et al., 2018). This convergence suggests that while early guidance is strategic, its most sustainable effect may depend on a guidance trajectory that does not end with secondary school completion, but rather is integrated with university services and with curricular modules or digital resources throughout the first year.

From an implementation perspective, the corpus and comparative literature converge on practical recommendations: integrate guidance as a formative component rather than a one-off event, and offer multiple tiers of support based on need. In secondary education, this implies combining curricular components, group activities, and individual attention when persistent indecision or contextual barriers are present—a line also proposed in recent reviews (Wang, Li, & Wang, 2024). In higher education, studies of counseling services show that availability does not guarantee use, and that students’ perceptions of usefulness, accessibility, and relevance condition participation (Coman et al., 2025). Consequently, impact on persistence likely requires not only intervening in the choice itself, but also ensuring that students know where to go, trust the service, and find operational responses for navigating the curriculum and the labor market.

The limitations observed in the corpus are consistent with gaps identified in international reviews: lack of long-term follow-up, heavy reliance on self-report, and designs that do not always control for selection

bias or baseline differences between groups. This constrains causal strength when discussing persistence and points to a more stringent research agenda: longitudinal studies using institutional indicators of continuous enrollment, credit accumulation, and graduation, alongside measurement of implementation quality and intermediate mechanisms such as self-efficacy, goal clarity, and person–environment fit. On this basis, the discussion yields a clear conclusion: current evidence supports, with considerable robustness, that early vocational guidance improves decision-making competencies, and supports—with more limited but promising evidence—that it can contribute to persistence, particularly when articulated with subsequent institutional supports.

**Conclusions**

The synthesized evidence shows that early career guidance programs produce consistent effects on key variables for higher-quality career choice, especially vocational clarity, decision-making maturity, informed exploration of options, and the strengthening of career management competencies. Overall, the studies suggest that when guidance is structured, sustained, and focused on self-knowledge and exploration, the likelihood of improvised decisions or decisions made by elimination decreases. Regarding persistence in higher education, the evidence is less robust and more heterogeneous, mainly due to the scarcity of longitudinal follow-ups and the diversity of indicators used to measure retention, dropout, or graduation. Even so, the general pattern indicates that early guidance acts as a preventive mechanism that reduces vocational mismatch, and that its impact on persistence is strengthened when support continues during the transition and the first year of university, through accessible services that are institutionally coordinated.

In applied terms, the findings support implementing early career guidance as a systematic educational strategy, with minimum standards for design, dosage, and evaluation, rather than as an isolated activity. The operational priority is to ensure real coverage, contextual relevance, and continuity, integrating referral pathways and support throughout the transition to higher education. The research agenda should focus on longitudinal designs with institutional indicators of persistence and graduation, as well as evaluations of implementation and

intermediate mechanisms, in order to estimate impact with greater validity and comparability.

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