

Career choices and gender dynamics: Exploring factors associated with the decision to study feminized careers in Chile

Elección de carrera y dinámicas de género: explorando factores asociados a la decisión de estudiar carreras feminizadas en Chile

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ABSTRACT

In recent years, Chile has increased women's access to higher education, particularly in education and health programs traditionally linked to gender roles. This study examines the career choices of 672 secondary students, assessing internal factors (ambivalent sexism, self-efficacy, and educational motivation) using a multigroup structural equation model and enrollment data from the Ministry of Education. Model reliability was confirmed with CFI, TLI, SRMR, and RMSEA. Results reveal gender differences: ambivalent sexism shapes male students' decisions, whereas

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self-efficacy influences those of female students. These findings underscore the need to strengthen career guidance by enhancing women's self-efficacy and reducing male stereotypes to diversify professional aspirations.

KEYWORDS

Career choice, gender roles, secondary education, self-efficacy

RESUMEN

En los últimos años, Chile ha incrementado el acceso de las mujeres a la universidad, especialmente en programas de educación y salud ligados a roles de género. Este estudio analiza la elección de carrera de 672 estudiantes secundarios, al evaluar factores internos (sexismo ambivalente, autoeficacia y motivación educacional) mediante un modelo de ecuaciones estructurales multigrupo y datos de matrícula del Ministerio de Educación. La fiabilidad del modelo se validó con CFI, TLI, SRMR y RMSEA. Los resultados revelan diferencias de género: el sexismo ambivalente condiciona las decisiones de los hombres, mientras que la autoeficacia influye en las de las mujeres. Estos hallazgos destacan la necesidad de fortalecer la orientación profesional, al potenciar la autoeficacia femenina y reducir los estereotipos masculinos para diversificar las aspiraciones profesionales.

PALABRAS CLAVE

Elección de carrera, roles de género, enseñanza media, autoeficacia

Women's access to higher education has been slow and complex in many countries. In the particular case of Chile, the well-known Amunátegui Decree was enacted in 1877, enabling the admission of women to university. Subsequently, they progressively engaged in professional training, primarily in education and healthcare (Landaeta, 2019). More than a century later, there is a sustained process of feminization of enrollment in post-secondary education (Colther, 2022). In the case of Chile, data show that between 2005 and 2022, undergraduate female enrollment increased from 48.2% to 53.7%. In 2022, women constituted 50.5% of professional institutes, 54.7% of universities, and 57.4% of technical training centers, categorized by type of institution (CNED, 2022). Despite the numerical

predominance of female enrollment in higher education, gender segregation remains evident across professional fields: in 2022, women constituted 77.5% of enrollments in health disciplines, 75.7% in education, and 73.9% in social sciences. In science, technology, engineering, and mathematics (STEM), they represented 27%, and in technology specifically they accounted for only 19.3% (CNED, 2022).

While certain disciplines exhibit more equitable enrollment, such as administration and business, agriculture, art and architecture, basic sciences, and law, the data indicate that the increased access of women to higher education has accelerated the feminization of traditionally female-dominated fields, including health, education, and social sciences, which are linked to the roles ascribed to women within the sex/gender system (Gómez-Arízaga et al., 2020).

In this context of segregation, secondary school students in Chile make their choices for a post-secondary program, which is understood to be a complex and multifactorial process (Mohazem et al., 2021), where variables external to the person intervene, such as family, parental figures (Black and Schofield, 2018; Fernández-García et al., 2016; Hughes and Gibbons, 2018), the environment (Avendaño et al., 2020; Sánchez-Martín, 2020), and teachers and professionals who offer vocational guidance (Abrahams et al., 2015). However, this process is also influenced by individual factors such as motivations (Quattrocchi et al., 2017; Stover et al., 2017; Usán and Salavera, 2018), personal interests (Dinella et al., 2014; Farkas and Leaper, 2016), perceived self-efficacy (Else-Quest et al., 2010; Sáinz and Gallego, 2022; Zamora-Araya, et al., 2022), and sexist representations (Doña-Toledo and Luque-Martínez, 2019; Moso-Mena et al., 2017; Ricoy and Sánchez-Martínez, 2016; Ruiz-Gutiérrez and Santana-Vega, 2018), among others. In recent years, the influence of gender has gained special interest as a factor that, in interaction with both internal and individual factors, limits educational opportunities and professional development based on socially assigned gender roles and stereotypes.

The present study aims to estimate and analyze the influence of internal or individual factors such as a) ambivalent sexism, b) perceived self-efficacy, and c) educational motivation on the post-secondary program choice of secondary school students in Chile and how this influence varies according to the student's gender. The degree of feminization of the programs (percentage of female enrollment) will be used as an outcome variable to define students' decisions.

The study employs a quantitative methodological strategy through structural equation modeling to assess the aforementioned relationships

in an explanatory model of the program choices of secondary school students in Chile, according to the percentage of female enrollment in these programs. A non-probabilistic sample was established considering five geographical macro-zones nationally: north, central, south, and Austral south. The measurement of internal factors motivating post-secondary program choices was done using psychometric scales: 1) Ambivalent Sexism Inventory, 2) Educational Motivation Scale (EMS), and 3) Scale of Specific Perceived Self-Efficacy of Academic Situations. Meanwhile, for the variable program feminization, the percentage of female enrollment reported by the Chilean Ministry of Education (SIES, 2021) was considered. According to the information found, it is assumed that the internal factors will be interrelated differently according to sex in the explanation of program choice. Therefore, a structural equation modeling analysis was applied for each sex group to evaluate the differences in the relationships in the established theoretical model.

This study aims to advance in explaining the factors that influence post-secondary program choice and providing relevant information to understand gender segregation in the higher education system. At the same time, it may facilitate the development of mechanisms that foster gender equality through early education processes and vocational support devoid of gender stereotypes, thus promoting an equitable distribution of talents and opportunities.

Gender, motivations, and career choices

One of the factors of interest in career choices relates to identifying the motives that drive individuals to choose particular programs and determining whether these motives are intrinsic or extrinsic. Intrinsic motivations are internal and are related to the satisfaction provided by an activity in itself; they are associated with vocation, personal development, wanting to know more about a particular field, or motives of an altruistic nature (Ruiz-Gutiérrez and Santana-Vega, 2018). Conversely, extrinsic motivations refer to aspects external to individuals and, therefore, do not depend on them (Cano-Celestino, 2008).

In this vein, the relationship between motivations and gender has been studied. Most studies conclude that, in general terms, women opt more for programs considered typically female, such as those in the fields of social sciences, humanities, or health sciences, whereas men opt more for technical or engineering programs (Dinella et al., 2014; Farkas and Leaper, 2016; Navarro and Casero, 2012; Quattrocchi et al., 2017; Ramaci et al., 2017; Rodríguez-Muñoz et al., 2019, Rodríguez et al., 2016; Ruiz-Gutiérrez and Santana-Vega, 2018). In this same sense, the study by Sánchez-Martín

(2020) conducted in Murcia (Spain) found that the majority of those pursuing professional training cycles in the areas of community social services are women; therefore, gender is a central factor when choosing technical or professional studies.

The study by Rodríguez Muñoz et al. (2019) showed that at the extrinsic level, the motives most valued by students, mainly men, are the employability of a program and the social prestige of educational institutions; other motivations are to earn high salaries, to be recognized professionally, or to achieve rapid economic independence (Ruiz-Gutiérrez and Santana-Vega, 2018). Studies by Navarro and Casero (2012) and Quattrocchi et al. (2017) report that the motives that lead men to choose typically male programs are extrinsic and are associated with economic factors and financial stability. In contrast, women's decisions are motivated by intrinsic factors such as vocation, helping others, and personal development. This aspect was also reported in a study in Argentina by García-Ripa et al. (2018), which concluded that intrinsic motivations predominate in women, mainly altruism and self-improvement; prestige and economic rewards are the most prevalent motives in men. According to the aforementioned studies, both intrinsic and extrinsic motivations are conditioned by gender socialization processes and the differentiated roles assigned to men and women.

The relationship between the motivations of individuals, men or women, and the professional areas they choose has also been investigated. In this sense, it has been concluded that intrinsic motivations such as vocation or altruism predominate among students who choose programs in health, education (Said-Hung et al., 2017), social sciences, and humanities. Even though these motives may be perceived as intrinsic, like extrinsic motives, they refer to values internalized through genderized socialization processes. However, among those who choose programs in engineering, architecture, or economics, extrinsic motives associated with the prestige and power that a particular professional field can offer dominate (García-Ripa et al., 2018; Però et al., 2015; Skatova and Ferguson, 2014). This coincides with the feminization and masculinization of technical and professional programs since it is mostly women who study in programs where intrinsic motivations prevail, and it is mostly men who study in programs where the dominant motivations are extrinsic. These differentiations are related to cultural constructs and gender stereotypes transmitted intergenerationally through the different agents of socialization (Rodríguez-Esteban and Carretero-Serrano, 2023; Rodríguez-Esteban and Padín García, 2022; Ruiz-Gutiérrez and Santana Vega, 2018; Sánchez-Martín, 2020).

Sexism and program choice

Sexism denotes attitudes regarding the features and characteristics of women and men that produce relations of inequity towards the former (Maureira et al., 2023) because they are considered inferior and restricted to certain qualities and tasks (Esteban and Fernández, 2017). Glick and Fiske (1996) developed the theory of ambivalent sexism, which proposes two complementary forms of sexism. The first is hostile sexism, which refers to all those behaviors and attitudes that carry openly discriminatory messages towards women, given their supposedly inferior status. The second is benevolent sexism, which refers to attitudes and discourses that, expressed in an affective tone, confine women to socially designated duties and roles based on gender constructs (Cárdenas et al., 2010).

Career choice is a process that takes shape throughout life and is closely related to children's opportunities from an early age to explore different areas. Several studies report that the choice of a technical or professional program is strongly influenced by sexist stereotypes transmitted throughout life (Doña-Toledo and Luque-Martínez, 2019; Ricoy and Sánchez-Martínez, 2016). In this vein, the study in Ecuador by Moso-Mena et al., 2017, concluded that both the interests declared by the student body for program choice, as well as their professional skills, are permeated by gender-stereotyped beliefs. Similarly, Ruiz-Gutiérrez and Santana-Vega (2018) argue that sexist representations that assign qualities such as sensitivity to women and traits associated with achievement to men are related to career choice. Finally, the Spanish study by Sáinz and Meneses (2018) reports the prevailing perception among secondary school students of areas that are female-dominated and others that are male-dominated. Among the former are health and care programs; among the latter are those in science, technology, engineering, and mathematics.

The research on sexism and program choice concludes that gender predicts vocational decisions (Dinella et al., 2014) and that the perpetuation of sexist stereotypes significantly contributes to gender segregation in higher education.

Gender, self-efficacy, and post-secondary program choice

Self-efficacy is a construct developed by Bandura (1969, 1999, 2006) in the framework of social cognitive theory and further developed in the work of Lent et al. (1994, 2000) in the social cognitive career theory. Self-efficacy refers to people's beliefs about their abilities to perform tasks and accomplish goals successfully (Hackett, 1999; Lent et al., 1994). The theoretical framework of self-efficacy proposes that it is built based on four sources: a) previous achievements in the execution of tasks or activities;

therefore, previous positive or negative experiences can enhance or reduce the perception of self-efficacy (Rodríguez et al., 2012); b) vicarious experience or learning achieved by observing successes or failures in tasks performed by other people; c) social persuasion that verbally or non-verbally can encourage the development of certain tasks and generate confidence in the achievement of objectives; and d) the emotional and physiological responses elicited by specific activities in people, which might affect self-efficacy beliefs based on the positivity or negativity of these reactions.

The study of self-efficacy has been useful in explaining the scarce presence of women in some professional areas (Asbún and Ferreira, 2004; Olaz, 2003). It is posited that gender socialization and the perpetuation of sexist stereotypes foster divergent self-efficacy beliefs in men and women, as their opportunities for exploring various domains are dictated by socially constructed gender roles from childhood (Navarro et al., 2019; Recber et al., 2018). Consequently, men, unlike women, present higher levels in their perceptions of self-efficacy to be successful in the development of tasks related to male gender stereotypes (Mohazem et al., 2021; Navarro et al., 2019; Sáinz and Gallego, 2022); therefore, they tend to choose careers in the fields of engineering, technology, and mathematics. On the other hand, women feel more effective in careers in health or education, so they are more likely to enter these areas (Bandura et al., 2001; Li and Singh, 2021).

Method

The present study falls within quantitative epistemological research, employing a cross-sectional and non-experimental approach. It has a non-probabilistic sample, which includes secondary school students from the four geographic macro-zones of Chile. The analyses performed correspond to an explanatory level through structural equation modeling.

Based on the literature review, it is proposed that the above-mentioned internal factors explain the post-secondary program decisions of secondary school students in Chile, taking the levels of feminization into account. Figure 1 shows the proposed theoretical model as well as the following hypotheses:

- H1. Ambivalent sexism is an explanatory factor for the feminization of post-secondary program choice.
- H2. Perceived self-efficacy is an explanatory factor for the feminization of post-secondary program choice.
- H3. Educational motivation is an explanatory factor for the feminization of post-secondary program choice.

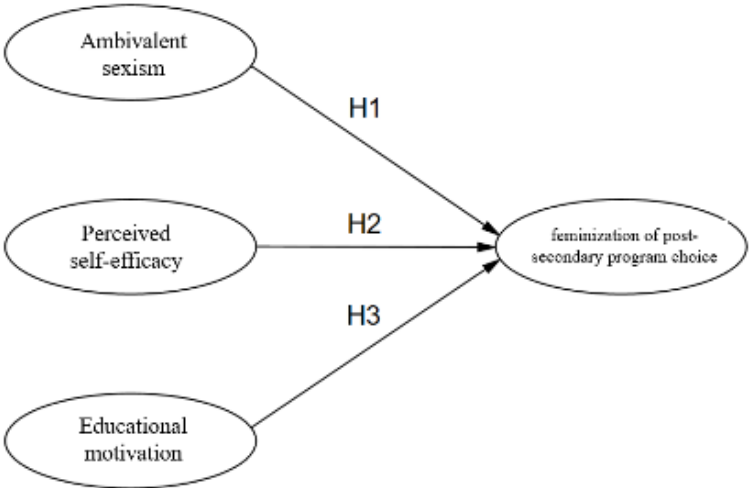


FIGURE 1. Theoretical model of the explanatory factors of program choice

Sample

The sample included Chilean adolescents between 16 and 19 years of age ($M= 17.4$; $SD=0.6$). The inclusion criterion was to be a student in the fourth year of scientific-humanistic secondary education in public, subsidized, or private schools. Data collection was divided into four natural geographic zones in the country. In the northern zone, the regions of Arica and Parinacota, Tarapacá, Antofagasta, Atacama, and Coquimbo participated; in the central zone, the regions of Valparaíso, Metropolitan, O’Higgins, Maule, and Ñuble; in the southern zone, the regions of Biobío, La Araucanía, Los Ríos and Los Lagos; and in the austral southern zone, the regions of Aysén, Magallanes, and Chilean Antarctica. The data matrix consisted of 672 participants. Although strict rules on sample size in SEM and factor analyses have mostly fallen into disuse (Costello and Osborne, 2005), the sample meets the recommended size for doing this analysis using the multigroup feature, adhering to the general guideline of a minimum of 100 participants per group (Kline, 2023). In SEM, it is advisable to have a sample size of at least 300-500 people or more per study (Shumacker and Lomax, 2016). Table 1 presents the sample characteristics.

TABLE 1. Sample characteristics

Characteristic	N (%)
Sex, N (%)	
Women	399(59.4%)
Men	273(40.6%)

Age	
Mean	17.4
Standard deviation	0.6
Zone of Residence, N (%)	
Urban	507(75.5%)
Rural	165(24.5%)
Membership in Indigenous Communities, N (%)	
Not a member	578(86.1%)
A member	94(13.9%)
Socioeconomic level, N (%)	
Low	14(2.1%)
Medium-low	142(21.1%)
Medium	430(64.0%)
Medium-High	80(11.9%)
High	6(0.9%)
Zone, N (%)	
North	57(5.5%)
Center	381(56.7%)
South	215(32.0%)
Austral south	19(2.8%)
Type of School N (%)	
Public	170(25.3%)
Subsidized	376(56.0%)
Private	126(18.8%)

Instruments and/or techniques

Psychometric scales that accumulate evidence of psychometric properties of validity and reliability were applied to measure the internal factors that motivate post-secondary program choice in Chilean secondary school students.

The ambivalent sexism inventory (ASI) was employed to assess students' sexism, rooted in the theory of ambivalent sexism, which posits the coexistence of hostile and benevolent sexism as two distinct forms (Glick and Fiske, 2001). Lemus et al. (2008) translated and adapted the inventory into Spanish, while Galván et al. (2021) published a version adapted

specifically for Chilean adolescents. The ASI is composed of 20 self-administered items, using a five-point Likert scale (1= strongly disagree, 5= strongly agree), distributed in two dimensions: hostile sexism (11 ítems), and benevolent sexism considering three subcomponents for the second factor: paternalism (3 ítems), gender complementarity (3 ítems), and heterosexual intimacy (3 ítems).

Concerning hostile sexism, the scale considers discriminatory attitudes and behaviors based on the supposed inferiority of women. Some items in this dimension are: Men are physically superior to women; Women must help their mothers at home more than men. The benevolent sexism dimension is embodied in attitudes that, even in a positive tone, stereotype and limit women to traditional roles (Lemus et al., 2008). This dimension of sexism is expressed through three subcomponents: paternalism, gender complementarity, and heterosexual intimacy. Examples of sentences associated with this dimension include: Men should take care of women; Women have a greater sensitivity than men to the feelings of others; A man may feel incomplete if he does not date a woman.

The factorial structure of this scale for Chilean adolescents yielded adequate goodness-of-fit indices and a reliability coefficient of .91 for the hostile sexism subscale and .87 for the benevolent sexism subscale.

The Scale of Specific Perceived Self-Efficacy of Academic Situations (Cid et al., 2010) was used to measure the perceived self-efficacy construct. This questionnaire comprises 10 items that assess self-efficacy expectations among students in the school context. The 10 statements are presented through a self-applied 5-point Likert-type response scale, including, for example: I consider myself capable enough to cope successfully with any academic task; I believe that I am a fairly capable and competent person in my academic life. This instrument was created for the Chilean context and has a reliability coefficient derived from the internal consistency technique, with an alpha coefficient of .88.

Regarding the measurement of educational motivation, the study used the psychometric scale developed by Núñez et al. (2006). The instrument has 28 items with a five-level ordinal score (5 = strongly agree, 1 = strongly disagree). It is composed of seven factors: 1) External Regulation, 2) Inner Motivation to Knowledge, 3) Identified Regulation, 4) Inner Motivation to Stimulating Experiences, 5) Amotivation, 6) Inner Motivation to Achievement, and 7) Introjected Regulation. Some examples of items in this scale are: I go to school because I really like going to school; I go to school to get a better salary later on. As evidence of validity and reliability, the educational motivation scale has antecedents in secondary school

students in Paraguay, where it obtained satisfactory internal consistency values through the alpha coefficient with values greater than .80.

Another section of the questionnaire was called Vocational Trajectories, which included questions of a sociodemographic nature. This section also examined the participant's post-secondary school plans, specifically inquiring about their intentions regarding the higher education programs they wish to pursue. From this last question, the variable feminization of program choice coded from 0 to 100 was constructed considering the percentage of female enrollment in force for each program according to the databases of the Chilean higher education system (SIES, 2021).

Procedure

To recruit the sample, initial contact was made with principals in nineteen schools in the country that offer scientific-humanistic education. Once the letters of support were obtained, which assured their participation in the study, the application of the instruments was coordinated. The ethical principles were safeguarded with informed consent forms authorized by the Ethics Committee of the Universidad Católica de Temuco, the institution sponsoring the research project, and were signed by students and guardians in the case of minors. The complete research followed the ethical guidelines pursuant to the Declaration of Helsinki standards and the Code of Conduct for Journal Editors (COPE). The instruments were applied by the project's technical personnel, trained for this purpose, between October and December 2023 as part of the career orientation course or another subject. The application sessions lasted approximately 30 minutes.

Data analysis

Initially, the mean (M) and standard deviation (SD) were considered as summary measures of central tendency and variability, while Pearson's correlation coefficient (r) was used as a measure of correlation. The study model was analyzed using structural equation modeling with the MLR estimator, which is used for numerical variables and possesses robustness against deviations from inferential normality (Muthen and Muthen, 2017). The model analysis is performed for each sex-determined group. The evaluation of the fit included the comparative fit index (CFI), the root mean square error of approximation (RMSEA), and the standardized root mean square residual (SRMR). Values of $CFI > .90$ (Bentler, 1990), $RMSEA < .080$, and $SRMR < .080$ (Browne and Cudeck, 1992) were used. For the reliability analysis, the internal consistency method was used with the alpha coefficient (α).

Structural equation modeling analyses were performed with the «R» software version 4.2.1, and the «lavaan» library version 0.6-12 was used (Rosseel, 2012).

Results

The study variable scores were scaled to a range of 0 to 30 to enhance visualization, ensuring that this process does not influence the correlation values among the variables. Table 1 shows the correlation results of the indicators of the measurement model for the male and female groups, and they are between .00 and .81 in absolute value. In this table, in addition to the mean and standard deviation, the internal consistency alpha coefficients are also observed, which were found to be between .56 and .90.

TABLE 2. Descriptive statistics, internal consistencies, and correlations for the study variables for men and women

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Hostile sexism	—	.50	.48	.52	-.12	.08	-.02	.03	-.02	.01	.00	.05	.07
2. Protective paternalism	.45	—	.50	.44	.07	.21	.15	.15	.15	.16	.15	.19	.06
3. Gender differentiation	.36	.50	—	.57	-.06	.06	-.03	-.01	.03	-.01	.00	.07	.10
4. Heterosexual intimacy	.42	.44	.52	—	-.10	.12	-.01	.01	.02	.00	.02	.10	.02
5. Perceived self-efficacy	-.03	-.03	-.03	-.02	—	.12	.50	.39	.50	.39	.56	.36	-.10
6. External regulation	.16	.24	.16	.18	.20	—	.28	.57	.17	.11	.27	.45	-.02
7. Inner motivation to knowledge	-.04	.14	.06	.03	.37	.32	—	.61	.74	.53	.81	.61	-.07
8. Identified Regulation	.01	.20	.01	.09	.32	.58	.64	—	.49	.43	.59	.62	-.05
9. Inner motivation to stimulating experiences	-.02	.20	.08	.03	.26	.23	.70	.48	—	.50	.69	.48	-.02
10. Amotivation	-.03	.06	-.03	.03	.16	.19	.47	.52	.46	—	.55	.40	-.04
11. Inner motivation to achievement	.04	.15	.08	.09	.37	.30	.77	.51	.69	.40	—	.72	-.04
12. Introjected regulation	.07	.27	.17	.18	.16	.47	.53	.44	.50	.35	.65	—	.03

13. Feminization of the career choice	.01	.00	-.12	-.12	.02	-.05	.01	-.03	.03	-.01	.00	-.10	—
M_{Men}	9.9	18.1	12.7	11.0	20.7	23.6	22.6	24.0	19.6	22.4	20.5	20.7	40.7
SD_{Men}	5.4	8.0	6.3	6.6	4.8	5.6	5.4	5.3	5.9	6.8	5.7	6.3	20.6
α_{Men}	.88	.85	.56	.68	.88	.77	.83	.83	.76	.86	.85	.81	—
M_{Women}	6.3	16.0	8.8	7.9	20.5	22.7	23.1	23.9	19.7	23.1	22.1	22.0	60.2
SD_{Women}	5.3	7.9	6.0	6.2	5.1	5.5	5.7	5.1	5.9	6.6	6.2	6.0	17.8
α_{Women}	.88	.80	.64	.73	.90	.72	.88	.76	.76	.88	.89	.79	—

Note. The elements on the table below the diagonal correspond to men, while those above the diagonal correspond to women.

In the analysis of the structural model, initially, for the group of men, there was an inadequate model fit, $\chi^2(61) = 241.3$, $p < .001$, CFI = .845, RMSEA = .104, SRMR = .071. Reading the modification indices and their relevance, the covariance of the errors of the dimensions of External Regulation with Identified Regulation and with Introjected Regulation is considered in Educational Motivation, thus having a good fit, $\chi^2(59) = 153.5$, $p < .001$, CFI = .919, RMSEA = .077, SRMR = .062. These results are detailed in Figure 2. This shows that hypothesis 1 on the negative effect of ambivalent sexism on the feminization of the program choice is confirmed, $\beta = -.10$; however, this is a small effect.

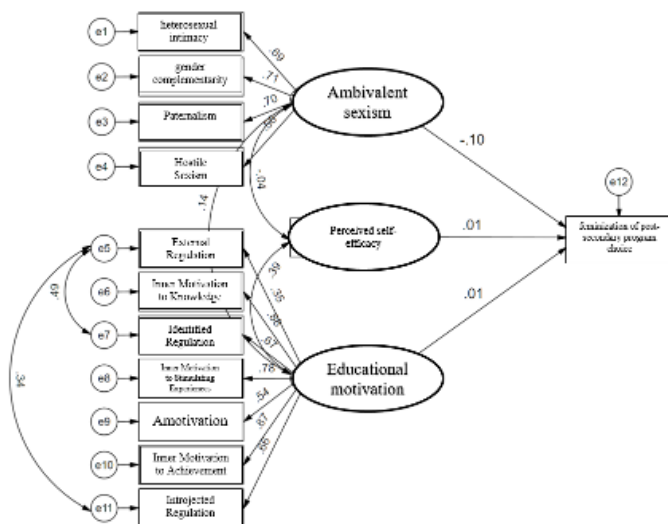


FIGURE 2. Results of the explanatory structural model of the feminization of program choice in the group of men ($n = 273$)

Subsequently, the structural model was evaluated in the group of women, with an inadequate fit, $\chi^2(61) = 296.6$, $p < .001$, CFI = .881, RMSEA = .098, SRMR = .069. Reading the modification indices, the covariance of the errors of the dimensions of External Regulation and Identified Regulation is considered in the Educational Motivation variable, thus having a good fit, $\chi^2(60) = 192.0$, $p < .001$, CFI = .933, RMSEA = .074, SRMR = .060. These results are shown in Figure 3, where hypothesis 2 on the effect of Perceived Self-Efficacy on the feminization of program choice is confirmed, $\beta = -.10$, although this is a small value.

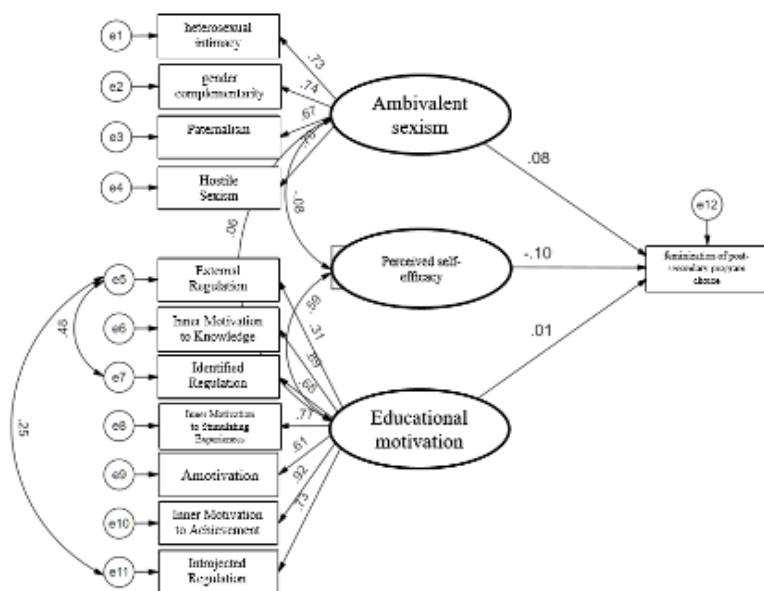


FIGURE 3. Results of the explanatory structural model of the feminization of program choice in the group of women ($n = 399$)

Discussion and conclusions

The present study analyzed sexism, self-efficacy, and educational motivation as internal factors that influence the selection of higher education courses according to the degree of feminization in their enrollment in a sample of secondary school students in Chile. Psychometric scales were applied to a non-probabilistic sample that considered the country's five natural geographic macro-zones to measure the internal factors that motivate program choice. To determine the feminization of the programs, the percentages of female enrollment reported by the Ministry of Education (SIES, 2021) were considered. The study employed a quantitative methodological strategy using structural equation modeling. In

particular, and considering the theoretical and empirical background, a structural equation analysis was performed for the groups determined for the variable sex.

The analysis of the male sample corroborates hypothesis 1, which posits that ambivalent sexism serves as a minor explanatory factor in the selection of programs with a high level of feminization. The effect of the variable ambivalent sexism in men is negative, which indicates that the greater the ambivalent sexism, the fewer female-dominated programs men choose in their enrollment. This result confirms the relationship between ambivalent sexism and gender stereotypes, which is why men with higher sexism scores would have a lower predisposition to choose careers associated with roles typically associated with gender stereotypes. This coincides with the results obtained by Lameiras et al. (2006) regarding post-secondary students in Spain, as well as with the systematic review conducted by Barreto and Doyle (2023) and Sisa (2020).

Hypothesis 2 was examined in female students for the perceived self-efficacy variable, revealing a minor negative effect. This indicates that for women, perceived self-efficacy will be explanatory in the sense that, at a higher level of self-efficacy, students opt for less female-dominated post-secondary programs. This does not imply that men base their choices on variables other than perceived self-efficacy, but rather that the baseline levels are present at a higher level since primary education and do not signify a special or statistically significant characteristic. Concerning hypothesis 3, educational motivation does not yield significant values that make it possible to assert that this variable clarifies the selection of post-secondary programs, contrary to assertions made in the study by García-Ripa et al. (2018), Perú et al. (2015), and Skatova and Ferguson (2014).

It is suggested that the study sample be expanded in future studies, as this was deemed a limitation in the current study. In addition, this analysis must be augmented by integrating aspects of family trajectories, support, socialization, and institutional influence on students from a qualitative standpoint to facilitate a more comprehensive understanding of gender segregation in career choices. Especially for the purpose of investigating gender segregation in typically masculinized areas, from other perspectives (Aguilar-Tello, 2021; Angulo-Giraldo, 2020).

In conclusion, self-efficacy and sexism were identified as variables that affect the extent of feminization in post-secondary program selection. However, the effect size of the connection found was small. Nonetheless, it is considered that the results obtained, particularly the significance of the correlations between variables differentiated by gender, facilitate

progress in understanding the factors that influence program choices, particularly among secondary school students in Chile. The current study's findings align with the research conducted by Gati and Kulcsar (2021), which highlights the subconscious impact of sexism and self-efficacy on the decision-making processes for post-secondary programs. Thus, the relevance of the variables ambivalent sexism and perceived self-efficacy in career guidance processes is highlighted, differentiated by gender, and the need to address these dimensions from early childhood and school education. Career choices have significant differences by gender (Manzano, 2023; Gomez, 2023). These variables are represented in the decisions that go beyond the influence of one variable alone, but by a complex interaction of sociocultural factors (Rodriguez-Esteban, 2022; Castelli-Olivera and Valles-Ruiz, 2024) that are determined by the social structures that determine, through prejudice, the decisions of both men and women at the time of continuing their university studies.

Finally, this finding poses the challenge of further investigating sexism and self-efficacy as variables for understanding gender segregation in the higher education system. The results offer preliminary and exploratory evidence to advocate for lifelong educational processes grounded on the universal principle of gender equality, which enhances decision-

making that is genuinely independent and unencumbered by gender stereotypes and prejudices.

Contribución de autoría

María Cecilia Fernández-Darraz cumplió con las fases de conceptualización, adquisición de fondos, investigación, metodología, administración de proyecto, supervisión, redacción del borrador original, y redacción, revisión y edición del texto final.

Claudio Andrés Briceño-Olivera participó en las fases de conceptualización, adquisición de fondos, investigación, metodología, administración de proyecto, supervisión, validación, visualización, redacción del borrador original, y redacción, revisión y edición del texto final.

Miguel Francisco Galván-Cabello participó en las fases de curación de datos, análisis de datos, investigación, metodología, *software*, redacción del borrador original, y redacción, revisión y edición del texto final.

Ronald Castillo-Blanco participó en las fases de análisis de datos, metodología, *software*, redacción del borrador original, y redacción, revisión y edición del texto final.

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Potenciales conflictos de interés

Ninguno.

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