



Personality and Temperament in Health Career Choice among Chilean Students

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Título: Personalidad y temperamento en la elección de una carrera de salud en estudiantes chilenos.

Resumen: La elección de una carrera universitaria es clave en la formación de identidad y proyección profesional, pudiendo ser influenciada por rasgos individuales tales como personalidad y temperamento, factores estudiados principalmente en medicina y odontología, existiendo escasa evidencia en otras carreras de salud. Este estudio cuantitativo, transversal y correlacional analizó los rasgos de personalidad y temperamento de 420 estudiantes chilenos de primer año de Kinesiología, Obstetricia y Puericultura, Tecnología Médica, Fonoaudiología, Nutrición y Dietética, y Terapia Ocupacional. La muestra estuvo compuesta por un 83.3% que se identificó con el género femenino, con una edad media de 19.9 años (DE = 2.7). Se aplicaron los instrumentos NEO-FFI y ATQ para evaluar temperamento y personalidad, cumpliendo con los estándares éticos y la aprobación del comité institucional. Los resultados identificaron diferencias significativas, donde Fonoaudiología destacó por amabilidad y control con esfuerzo, Obstetricia por afecto negativo, y Terapia Ocupacional por extraversión/surgencia. Se observó una menor probabilidad de elegir Nutrición al predominar conciencia. Los hallazgos sugieren que la elección vocacional se asocia parcialmente a perfiles de personalidad y temperamento, lo que podría orientar mejoras en planes de estudio y estrategias de acompañamiento estudiantil.

Palabras clave: Elección Vocacional. Personalidad. Temperamento. Carreras de Salud. Estudiantes Universitarios.

Abstract: Choosing a university degree plays a key role in identity formation and professional development. This process may be influenced by individual traits such as personality and temperament, which have been studied primarily in medicine and dentistry, with limited evidence available for other health-related disciplines. This quantitative, cross-sectional, correlational study examined the personality and temperament traits of 420 first-year Chilean students enrolled in Physical Therapy, Midwifery and Childcare, Medical Technology, Speech-Language Pathology, Nutrition and Dietetics, and Occupational Therapy. The sample comprised 83.3% female students and had a mean age of 19.9 years (SD = 2.7). The NEO-FFI and ATQ instruments were administered to assess personality and temperament. The study adhered to ethical standards and received approval from the institutional ethics committee. Significant differences were found across programs: Speech-Language Pathology students scored higher in agreeableness and effortful control, Midwifery students in negative affect, and Occupational Therapy students in extraversion/surgency. Students with higher conscientiousness were less likely to choose Nutrition and Dietetics. These findings suggest that vocational choice is partially associated with personality and temperament profiles and may help inform improvements in university curricula and student support strategies.

Keywords: Vocational Choice. Personality. Temperament. Health Careers. University Students.

Introduction

The transition to university represents a crucial stage in students' personal and professional development and is accompanied by diverse social and cultural expectations that shape their academic trajectory (Moreno et al., 2013). During this phase, one of the most significant challenges is choosing a field of study, a decision made on the basis of personal interests within the context of a wide range of academic options and labor market opportunities (Porfeli & Lee, 2012). This process is further complicated by the developmental characteristics of adolescence and the transition to adulthood, a period in which exploration and identity-related uncertainty converge (Páramo et al., 2017). An appropriate vocational choice not only contributes to identity formation but also promotes personal satisfaction and future occupational stability (Kunnen, 2013).

Various theoretical models have addressed career choice from perspectives focused on self-efficacy, expectations, and professional goals (Lent et al., 1994). In this context, Carpen-

ter and Foster (1977) classify influencing factors into three categories: intrinsic, extrinsic, and interpersonal. Intrinsic factors in particular, such as personality type, motivation, prior experiences, and curricular development, have been examined in relation to vocational decision-making (Kunnen, 2013; Nyamwange, 2016; Ryan & Deci, 2000). Regarding personality, the Five-Factor Model—conscientiousness, openness, extraversion, agreeableness, and neuroticism—has been widely used (López del Río & Artuch-Garde, 2022). Based on these traits, researchers have sought to characterize individuals according to the relative predominance of these five major dimensions (Costa & McCrae, 1992). Previous studies have shown that levels of neuroticism and conscientiousness are associated with stronger vocational commitment (Jin et al., 2009). However, traits such as extraversion and neuroticism have also been linked to greater career indecision (Di Fabio et al., 2014).

In the field of health sciences, much of the literature has focused on examining the personality and temperament traits of medical students (Aditya et al., 2025; Al Sawafi et al., 2024; Vaidya et al., 2005), nursing students (Kenney et al., 2014), and dentistry students (Gómez-Polo et al., 2024). For example, medical students who choose specialties such as primary care or gynecology have been found to display high-

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er levels of reward dependence, whereas those who choose surgical specialties tend to show higher levels of novelty seeking and may therefore be better able to tolerate the stress associated with surgical fields (Vaidya et al., 2005). Similarly, Al Sawafi et al. (2024) found that students who preferred surgery-oriented medical specialties scored higher on extraversion and openness than those interested in medical or basic science specialties. Higher levels of conscientiousness and lower levels of negative affect have also been reported among students oriented toward surgical specialties (Aditya et al., 2025). Extraversion and openness, in particular, are associated with greater assertiveness and curiosity, respectively.

Nevertheless, evidence on how these variables influence the choice of other health-related degree programs remains limited. This distinction is important because each health profession has different goals and requires specific emotional and cognitive skills; consequently, academic success in each field may depend on different temperamental profiles. Overlooking variability across health disciplines may lead to vocational guidance or academic support plans that are poorly targeted and insufficiently responsive to students' actual needs throughout their education. Current research in health-related fields suggests that students do not choose these programs solely on the basis of academic competence, but are also influenced by traits associated with vocational self-selection (Fedele et al., 2025). More altruistic and community-oriented profiles tend to gravitate toward rehabilitation and direct-care fields, distinguishing them from students drawn to more technical or procedure-oriented specialties (Kanazawa et al., 2025). Given the relevance of individual factors in vocational decision-making, this study aims to analyze the relationship between personality and temperament traits and the choice of health-related degree programs among first-year Chilean university students. It is hypothesized that students across the programs examined will exhibit differentiated profiles on these psychological dimensions, reflecting distinct patterns of personality and temperament that may be associated with each field of study.

Method

Design and Procedure

A quantitative, cross-sectional analytical study with a correlational design was conducted. Given the cross-sectional nature of the study and the relative stability of personality and temperament traits, these variables were assumed to temporally precede career choice, as they are considered stable dispositions. Accordingly, reverse causality—that is, the possibility that career choice alters these traits—was considered unlikely, particularly because participants were in their first months of university study.

According to the institutional self-evaluation report, the university was not affiliated with any centralized admission system (Universidad Bernardo O'Higgins, 2017). Consequently, the students who participated in this study selected their field of study independently. This provided an opportunity to examine the influence of variables other than prior academic performance on career choice. Authorization was obtained from the program directors to administer the questionnaires during first-semester introductory courses. The research team then coordinated with course instructors to administer the instruments during one hour of in-person class time. Students were invited to participate voluntarily and signed an informed consent form before taking part in the study.

Data collection took place in the classrooms assigned to each program. The instruments were administered in person, in paper format, as part of a packet containing all required documentation. The process was supervised throughout by the researchers and research assistants, who were available to answer questions on site. After completion, the questionnaires were reviewed to ensure that they had been filled out correctly. Each student's program enrollment was confirmed through the institutional Academic Management System.

Participants

The sample comprised 420 first-year students from the Faculty of Health Sciences at Universidad Bernardo O'Higgins. Of these, 83.3% identified as female, and the mean age was 19.9 years ($SD = 2.7$). The distribution across programs was as follows: Physical Therapy (14.7%), Midwifery (39.7%), Medical Technology (14.3%), Speech-Language Pathology (4.8%), Nutrition and Dietetics (10.0%), and Occupational Therapy (16.4%) (Table 1).

Table 1

Distribution of First-Year Students in the Faculty of Health Sciences at a Chilean University, by Gender and Degree Program

Frequency (%)	Physical Therapy	Midwifery and Childcare	Medical Technology	Speech-Language Pathology	Nutrition and Dietetics	Occupational Therapy
Male	31 (50)	5 (2.99)	22 (37.29)	0	3 (7.14)	8 (11.59)
Female	31 (50)	162 (97.1)	37 (62.71)	20 (100)	39 (92.86)	61 (88.41)
Not reported	-	-	1 (0.23)	-	-	-
Total	62 (14.76)	167 (39.76)	60 (14.29)	20 (4.76)	42 (10)	69 (16.43)

Sample size estimation was based on the planned use of multinomial logistic regression, assuming 80% statistical power, a 5% significance level, and a medium effect size ($F^2 = 0.15$). The minimum required sample size was estimated at 300 participants. The final sample ($n = 420$) exceeded this threshold, allowing multivariate analyses to be conducted with adequate statistical power.

Participants were recruited through non-probability convenience sampling. First-year students entering the Faculty of Health Sciences at Universidad Bernardo O'Higgins (Santiago, Chile) were invited to participate. Students with any neurological or cognitive disability, or any other condition that could directly affect academic performance or university admission, were excluded, as such conditions might interfere with the level of comprehension required to complete the self-report instruments. Before completing the questionnaires, all participants read and signed an informed consent form. The study protocol and informed consent form were reviewed and approved by the Scientific Ethics Committee of Universidad Bernardo O'Higgins (Approval No. 29/2018).

Instruments

The primary outcome was the degree program in which each student was enrolled during the first year. This variable was obtained through self-report and subsequently verified using the university's academic records. Personality was assessed using the Spanish version of the NEO Five-Factor Inventory (NEO-FFI) (Costa & McCrae, 1999), a 60-item instrument that measures five broad personality dimensions: neuroticism, associated with psychological distress and emotional reactivity; extraversion, linked to sociability and communication; openness, referring to intellectual curiosity and creativity; agreeableness, related to interpersonal relationships and concern for others; and conscientiousness, which reflects goal orientation and organization. Each dimension includes 12 items rated on a 5-point Likert scale ranging from "strongly disagree" to "strongly agree." Mean scores for each dimension were calculated and used as continuous variables, following the guidelines provided in the inventory manual.

Temperament was assessed using the short version of the Adult Temperament Questionnaire (ATQ) (Evans & Rothbart, 2007), adapted into Spanish by Krieger and Amador-Campos (2013). This 77-item instrument comprises four main scales. Negative affect refers to the tendency to experience negative emotions and sensitivity to aversive stimuli. Extraversion/surgency describes the disposition to experience positive emotions and derive pleasure from social interactions and novel contexts. Effortful control refers to the capacity to regulate attention, emotions, and behavior, including inhibiting impulses and planning actions. Finally, orienting sensitivity refers to the perception of subtle internal and external stimuli, including one's own and others' emotions. Responses are recorded on a 7-point Likert scale rang-

ing from "extremely untrue" to "completely true," with an additional "not applicable" option. Mean scores for each dimension were calculated and used as continuous variables in accordance with the questionnaire's scoring structure.

Age and self-reported gender were included in the analyses. Internal consistency was assessed using Cronbach's alpha. The NEO-FFI scales showed adequate reliability, with $\alpha = .74$ for Neuroticism, $\alpha = .80$ for Extraversion, $\alpha = .65$ for Openness, $\alpha = .67$ for Agreeableness, and $\alpha = .78$ for Conscientiousness. Similarly, the ATQ dimensions yielded $\alpha = .78$ for Negative Affect, $\alpha = .70$ for Extraversion/Surgency, $\alpha = .69$ for Effortful Control, and $\alpha = .59$ for Orienting Sensitivity.

Data Analysis

A descriptive analysis was conducted to characterize the scores obtained from the administered questionnaires. Means and standard deviations (SD) were calculated for each of the traits assessed, including personality traits measured with the NEO-FFI and temperament traits measured with the ATQ, without assuming a normal distribution.

Personality and temperament trait proportions were graphically represented using forest plots and heterogeneity statistics (I^2), methods typically used in meta-analyses. These procedures were adapted to visualize and quantify variability in traits across the different degree programs (subgroups) in relation to the overall mean, thereby facilitating the graphical identification of atypical patterns. Overall proportions and 95% confidence intervals were estimated. Cochran's Q test was then used to compare proportions across programs for each trait. Estimates were calculated using the inverse variance method, as recommended in studies analyzing proportions. Finally, a multinomial logistic regression model was used to evaluate the association between degree program choice and the predictor variables, with each personality and temperament trait analyzed individually. Degree program choice was specified as the nominal dependent variable.

Personality and temperament traits were entered into the model as continuous covariates (raw scores), without prior categorization, in order to preserve data variability and estimate the effect of a one-unit increase in each trait on the probability of choosing a given degree program. The model was adjusted for age and gender. Physical Therapy was specified as the reference category because it showed a more balanced gender distribution, thereby improving the precision of the estimates. Coefficients were expressed as Relative Risk Ratios (RRRs), allowing the effect of each predictor on the probability of choosing a particular field of study to be interpreted.

All analyses were conducted using Stata® statistical software, version 14. Data quality was verified before the analyses. The proportion of missing data was negligible ($< 0.5\%$), with only one missing value for age and complete da-

ta for the psychometric scales after the digitization and review process.

Results

Personality Traits

Regarding the personality traits assessed with the NEO-FFI, neuroticism showed the highest mean score among Physical Therapy students (34.0) and the lowest among Occupational Therapy students (32.3). Extraversion was highest

among Speech-Language Pathology students (43.9) and lowest among Nutrition and Dietetics students (40.3). For openness to experience, Occupational Therapy students obtained the highest mean score (39.5), whereas Nutrition and Dietetics students showed the lowest (37.0). In terms of agreeableness, Speech-Language Pathology students had the highest mean (42.2), while Medical Technology students had the lowest (37.5). Finally, conscientiousness was highest among Speech-Language Pathology students (42.7) and lowest, once again, among Nutrition and Dietetics students (38.3) (Table 2).

Table 2

Mean Scores for the Five Personality Traits by Health Sciences Degree Program

Neuroticism	Mean	Median	SD	Percentile (25th-75th)	
Physical Therapy	34.01	34.5	8.56	31	38
Midwifery and Childcare	33.88	34	8.74	29	39
Medical Technology	32.56	32	10.08	26	40.5
Speech-Language Pathology	33.3	34	6.58	29	37
Nutrition and Dietetics	32.54	34	11.11	29	40
Occupational Therapy	32.30	33	8.93	29	37
Extraversion					
Physical Therapy	40.79	40.5	10.10	37	49
Midwifery and Childcare	41.28	42	9.76	37	47
Medical Technology	40.66	42	10.26	35	47
Speech-Language Pathology	43.95	42.5	6.41	38.5	49.5
Nutrition and Dietetics	40.30	42.5	13.20	37	47
Occupational Therapy	43	45	9.83	39	48
Openness					
Physical Therapy	38.30	39	9.84	34	44
Midwifery and Childcare	39.49	39	8.08	36	45
Medical Technology	37.35	38	8.37	34.5	42
Speech-Language Pathology	38.05	38.5	5.68	36.5	41.5
Nutrition and Dietetics	37	40	12.29	36	44
Occupational Therapy	39.59	41	8.97	36	45
Agreeableness					
Physical Therapy	38.45	40	9.20	36	42
Midwifery and Childcare	40.01	41	8.83	36	47
Medical Technology	37.53	39	9.53	34	43
Speech-Language Pathology	42.2	42	4.39	39	44.5
Nutrition and Dietetics	37.88	41	12.13	36	45
Occupational Therapy	40.33	41	9.17	35	46
Conscientiousness					
Physical Therapy	40	40.5	9.77	36	46
Midwifery and Childcare	41.97	42	9.19	38	48
Medical Technology	41.25	42	9.79	37	46
Speech-Language Pathology	42.7	41.5	7.01	39.5	46.5
Nutrition and Dietetics	38.33	40	12.02	36	44
Occupational Therapy	42.72	44	10.53	38	48

Heterogeneity of Personality Traits

The heterogeneity analyses indicated that, among the personality traits, only agreeableness showed significant dif-

ferences across programs ($I^2 = 60.75\%$, $p < .05$). The remaining traits were homogeneous, particularly conscientiousness ($I^2 = 0.18\%$) and neuroticism ($I^2 = 0.00\%$) (Figures 1, 2).

Figure 1
Heterogeneity of Personality Traits Across Health Sciences Degree Programs (part 1)

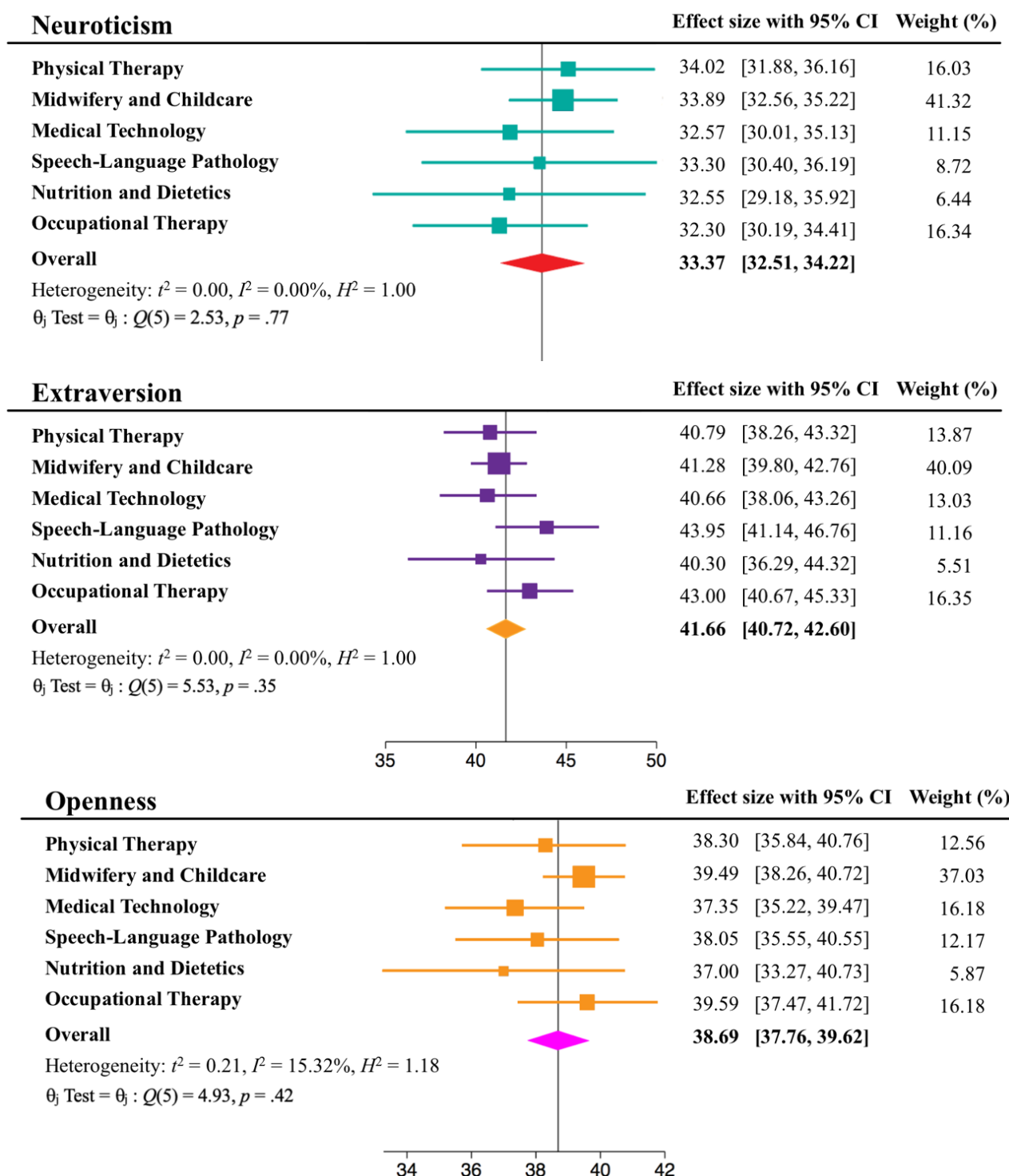
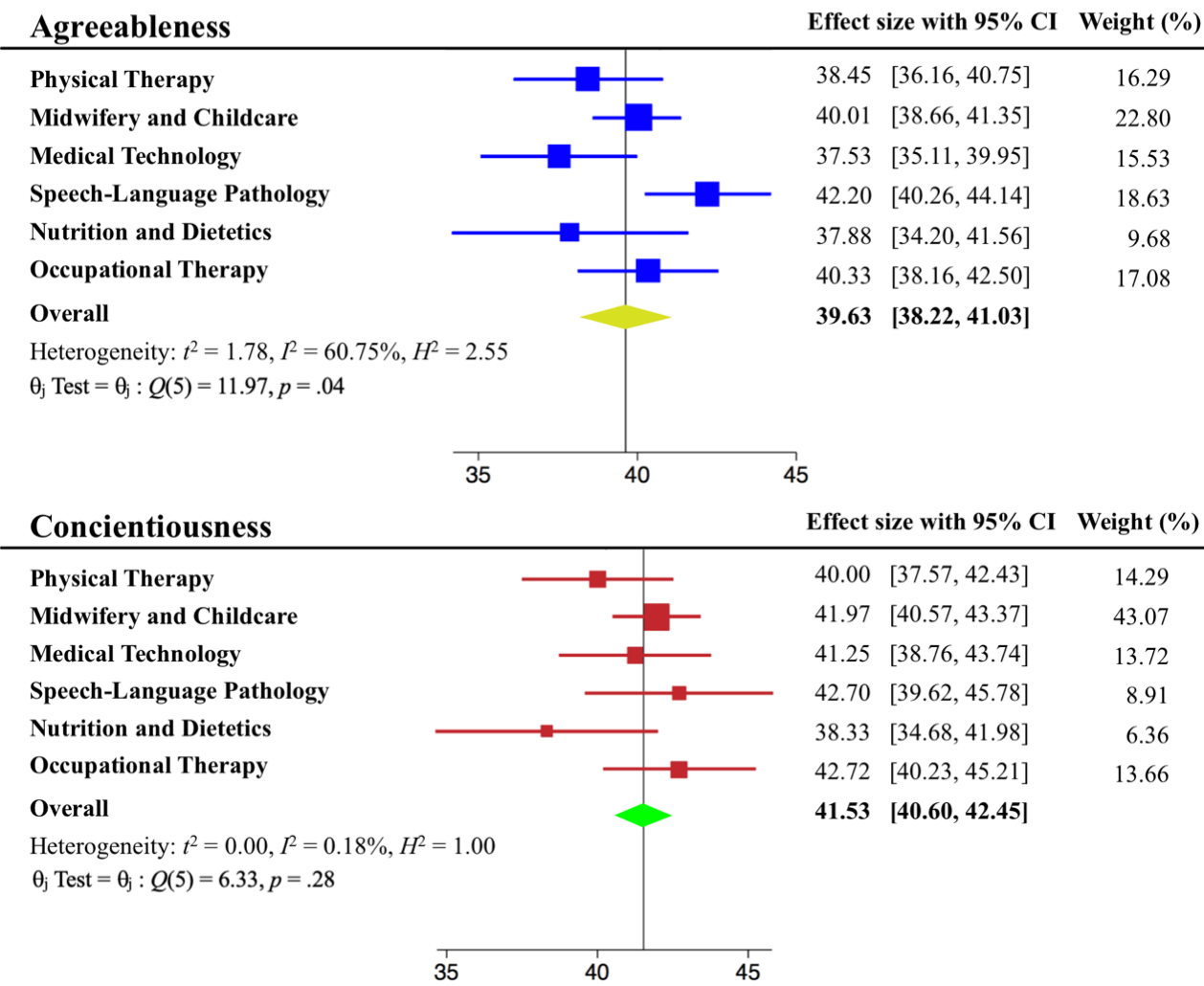


Figure 2
Heterogeneity of Personality Traits Across Health Sciences Degree Programs (part 2)

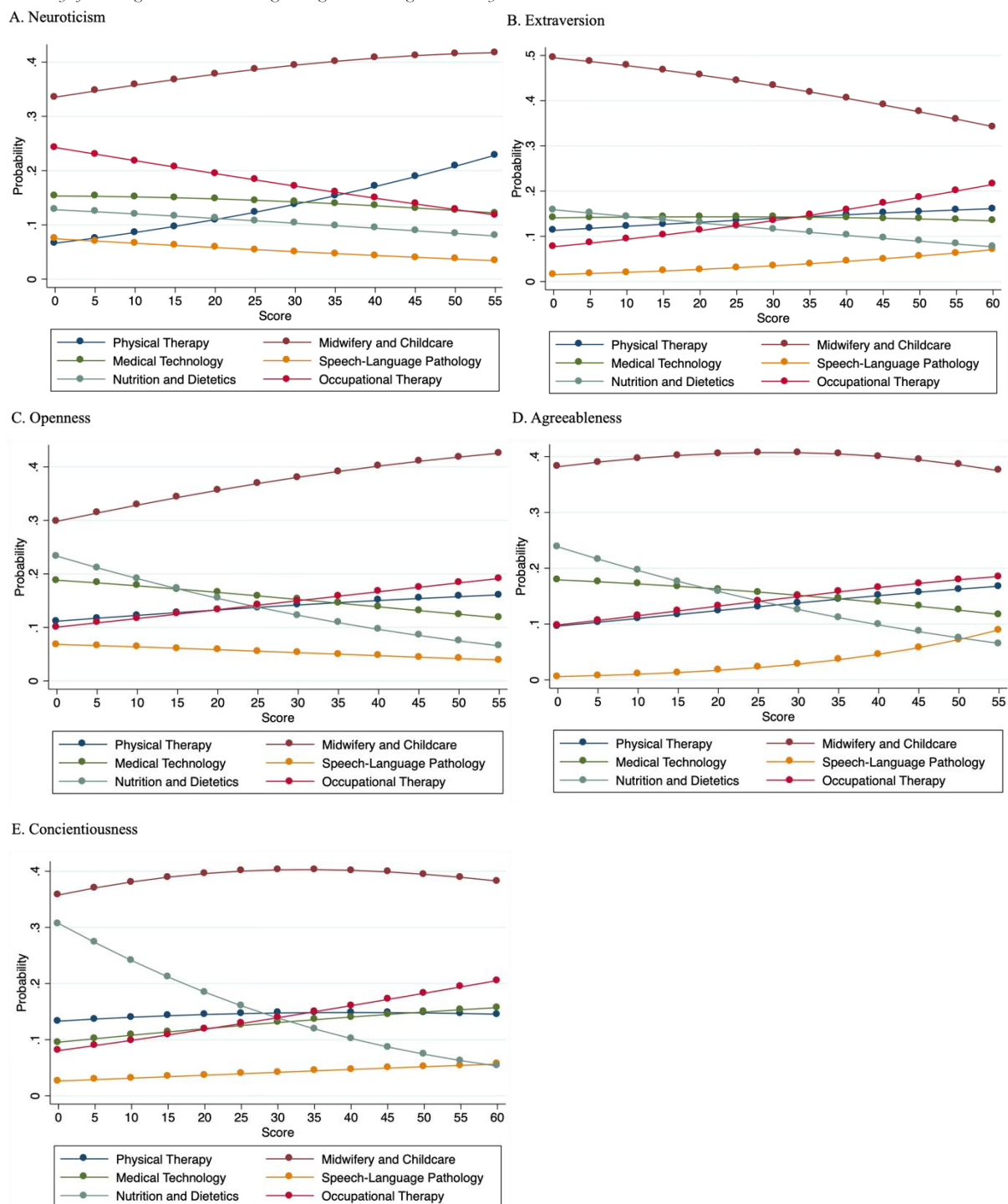


Association Between Personality Traits and Degree Program Choice

Multinomial logistic regression models were used to evaluate the probability of choosing a degree program based on personality and temperament scores. No significant asso-

ciations were observed for neuroticism, extraversion, openness, or agreeableness. However, higher conscientiousness scores were associated with a lower probability of choosing Nutrition and Dietetics (RRR = 0.96; 95% CI [0.94, 0.99]; $p = .046$) (Figure 3).

Figure 3
Probability of Choosing a Health Sciences Degree Program According to Personality Trait Scores.



Temperament Traits

Regarding the temperament traits assessed, Speech-Language Pathology showed the highest mean score for effortful control (80.5), whereas Nutrition and Dietetics

showed the lowest (74.3). In the negative affect dimension, the highest score was observed among Midwifery and Childcare students (107.0), and the lowest among Medical Technology students (95.7). With respect to extraversion/surgency, the highest mean score was found in Occu-

pational Therapy (89.5). Finally, for orienting sensitivity, Midwifery and Childcare again showed the highest mean score (73.8), standing out from the other programs evaluated (Table 3).

Table 3
Mean Scores for Temperament Traits by Health Sciences Degree Program

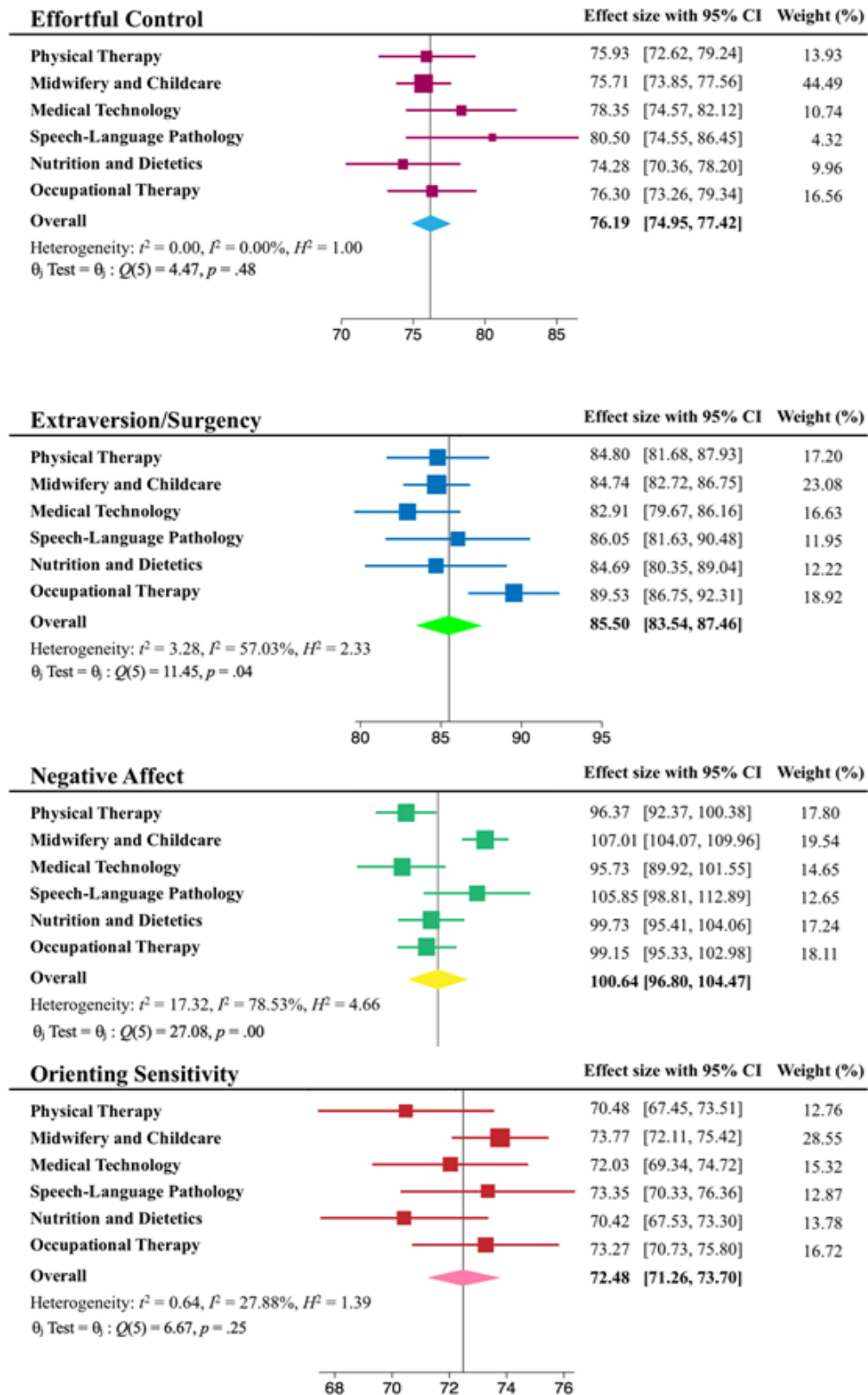
Effortful Control	Mean	Median	SD	Percentile (25th-75th)	
Physical Therapy	75.93	75.5	13.27	64	85
Midwifery and Childcare	75.71	76	12.17	68	83
Medical Technology	78.35	79	14.88	70.5	87.5
Speech-Language Pathology	80.5	78	13.55	71	92
Nutrition and Dietetics	74.28	78.5	12.93	66	84
Occupational Therapy	76.30	76	12.84	67	83
Negative Affect					
Physical Therapy	96.37	96	16.02	85	107
Midwifery and Childcare	107.01	108	19.36	93	120
Medical Technology	95.73	96	22.91	80	113.5
Speech-Language Pathology	105.85	108.5	16.03	96	115.5
Nutrition and Dietetics	99.73	101.5	14.25	88	112
Occupational Therapy	99.15	98	16.14	86	110
Extraversion/Surgency					
Physical Therapy	84.8	87.5	12.51	78	93
Midwifery and Childcare	84.74	87	13.23	77	94
Medical Technology	82.91	80	12.79	76.5	91
Speech-Language Pathology	86.05	85.5	10.06	78.5	93
Nutrition and Dietetics	84.69	85	14.31	74	95
Occupational Therapy	89.53	89	11.75	83	98
Orienting Sensitivity					
Physical Therapy	70.48	70	12.14	62	80
Midwifery and Childcare	73.77	73	10.87	67	80
Medical Technology	72.03	72	10.59	65.5	78
Speech-Language Pathology	73.35	74	6.85	67.5	77
Nutrition and Dietetics	70.42	70.5	9.51	63	78
Occupational Therapy	73.27	74	10.71	66	80

Heterogeneity of Temperament Traits

Among the temperament traits, negative affect ($I^2 = 78.53\%$, $p < .01$) and extraversion/surgency ($I^2 = 57.03\%$, p

$< .05$) showed greater heterogeneity across programs. Midwifery and Childcare scored above the overall mean in negative affect, whereas Occupational Therapy stood out in extraversion/surgency (Figure 4).

Figure 4
Heterogeneity of Temperament Traits Across Health Sciences Degree Programs

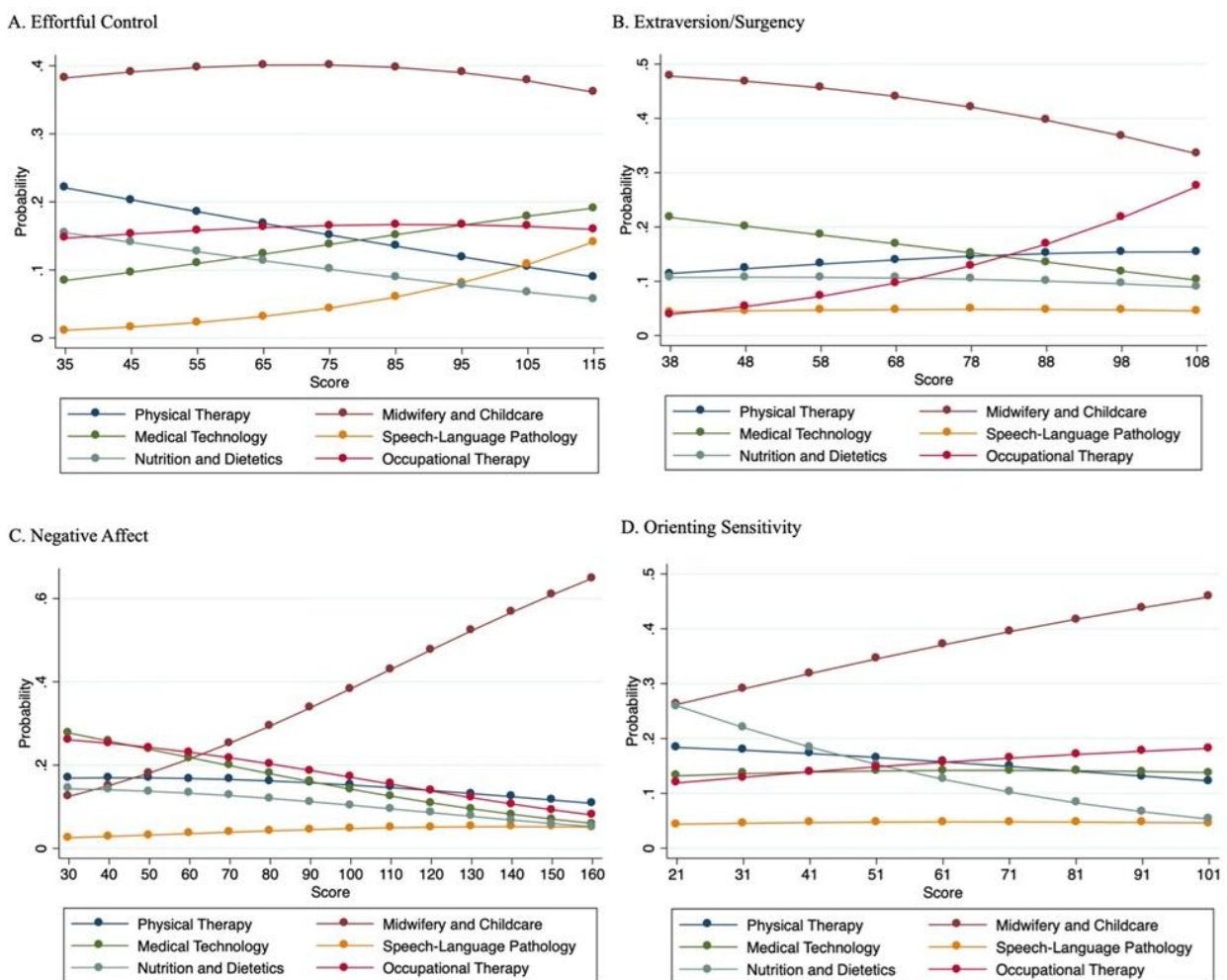


Association Between Temperament Traits and Degree Program Choice

Higher effortful control was associated with a greater probability of choosing Speech-Language Pathology (RRR = 1.04; 95% CI [1.00, 1.10]; $p = .033$). Negative affect was as-

sociated with a greater likelihood of choosing Midwifery and Childcare (RRR = 1.02; 95% CI [1.00, 1.03]; $p = .028$). Extraversion/surgency was associated with the choice of Occupational Therapy (RRR = 1.03; 95% CI [1.00, 1.05]; $p = .007$). Orienting sensitivity was not significantly associated with degree program choice (Figure 5).

Figure 5
Probability of Choosing a Health Sciences Degree Program According to Temperament Trait Scores



Discussion

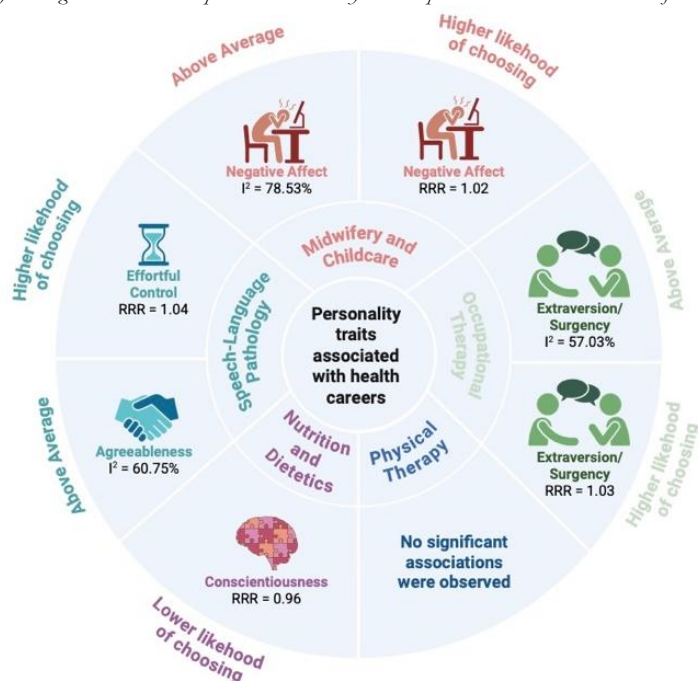
The aim of this study was to analyze the relationship between personality and temperament traits and the choice of health-related degree programs among first-year university students. The results revealed differentiated associations between specific psychological profiles and preferences for particular programs, providing empirical evidence in an area that remains relatively underexplored. A summary of the study findings is presented in Figure 5.

High levels of openness and agreeableness were observed in the sample, consistent with previous studies con-

ducted with first-year university students (Costa et al., 2001; Jonassaint et al., 2011). These traits may reflect a favorable disposition toward learning and collaboration, both of which are central to health-related programs. Elevated neuroticism scores were also observed across all groups. This pattern may be explained both by the higher levels of this trait typically reported among women—who comprised 83.3% of the sample—and by the substantial adaptive demands associated with the transition to university (Chang et al., 2015), which may influence self-reported levels of emotional instability.

Figure 5

Key Findings on the Relationship Between Personality and Temperament Traits and the Choice of a Health Sciences Degree Program



At the level of program-specific profiles, the findings support the notion that vocational choice is partially shaped by individual traits. In the case of Speech-Language Pathology, students stood out for higher levels of effortful control and agreeableness. This profile reflects a combination of social skills, emotional regulation, and commitment, all of which are essential for communicative clinical practice. More broadly, this combination of emotional regulation, interpersonal warmth, and prosocial orientation is consistent with the relational demands of communicative rehabilitation. These results align with recent research (Kanazawa et al., 2025), which reported high levels of openness and agreeableness in fields involving prolonged patient contact, as well as with reviews such as Peroš et al. (2025), which suggest that therapy-oriented specialties tend to attract more socially oriented profiles. Although our findings differ in part from previous studies reporting high extraversion and low neuroticism among Speech-Language Pathologists (Byrne, 2017; Freud et al., 2019), they may reflect the importance of self-regulation and self-discipline in settings that require sustained attention and clinical empathy.

In Occupational Therapy, higher levels of extraversion/surgency were associated with a greater likelihood of choosing this program, reflecting an active orientation toward interpersonal work. This finding is consistent with the literature linking extraversion to careers centered on human interaction (Datu, 2012). Midwifery and Childcare, in turn, was associated with higher levels of negative affect, a finding consistent with studies reporting a greater tendency toward social anxiety among students interested in gynecological and obstetric fields (Newton, 2012). By contrast, Nutrition and

Dietetics showed an inverse association with conscientiousness. This result differs from the literature describing these professionals as highly organized and responsible (Ball et al., 2014), which may point to unexplored within-program variability or to specific characteristics of the cohort evaluated in this study.

Finally, programs such as Medical Technology and Physical Therapy did not show clearly differentiated patterns, suggesting greater internal diversity in student profiles or a weaker influence of the traits assessed on the choice of these disciplines. Both programs, however, showed comparatively lower levels of negative affect, a pattern broadly consistent with studies reporting low neuroticism among entering Physical Therapy students (McCombie et al., 2015). Taken together, these findings support the hypothesis that vocational choice is partially shaped by individual personality and temperament traits. Dimensions such as conscientiousness, negative affect, extraversion/surgency, and effortful control emerged as relevant correlates of degree program choice within the health sciences. In addition, traits such as neuroticism have been associated in adults with higher levels of psychological distress, academic anxiety, and dropout (Goodwin et al., 2006; Miller & Pilkonis, 2006), factors that may negatively affect academic performance and student well-being.

The identification of dimensions such as effortful control, negative affect, agreeableness, and conscientiousness may be useful for developing vocational guidance strategies and strengthening comprehensive academic support during the first year, a critical period in students' emotional and academic adjustment. Although personality and temperament

are generally regarded as relatively stable, the university years also involve a certain degree of psychological plasticity. As proposed by Hirschi and Pang (2025), professional identity formation in emerging adulthood is dynamic; career-related strivings during university may reinforce and shape certain characteristics, suggesting a potentially bidirectional relationship between students and their chosen discipline over time. Future research could extend these findings through longitudinal designs that examine the stability or evolution of psychological profiles throughout the educational process, as well as through qualitative or mixed-methods approaches that explore students' subjective motivations in greater depth. Likewise, integrating this information into admission processes, vocational guidance programs, and student well-being initiatives may represent a strategic opportunity for higher education institutions seeking to promote coherent, satisfying, and sustainable academic trajectories.

Several methodological limitations should be considered when interpreting these results. First, the non-probabilistic nature of the sample limits the generalizability of the findings to other institutions and contexts. Although convenience sampling is common in exploratory research, it may introduce biases related to voluntary participation. Second, the cross-sectional design precludes causal inferences regarding the variables examined. Third, potentially relevant contextual factors—such as socioeconomic status, prior vocational guidance, and family expectations—were not included, even though they may influence degree program choice. With respect to socioeconomic status, 90% of students at the institution from which the sample was drawn were classified as lower-middle class, with family incomes below 800,000 Chilean pesos (Universidad Bernardo O'Higgins, 2017). This suggests limited socioeconomic variability within the study context, although the variable was not directly measured and therefore cannot be considered fully controlled. In addition, although standardized instruments were used, they were administered in group settings and relied on self-report, which may have affected the candor or accuracy of responses. The marked predominance of women in the sample also limits generalizability. Finally, unequal sample sizes across programs, particularly in Speech-Language Pathology, warrant cautious interpretation of the findings. It is also possible that social stereotypes associated with health-related programs influenced students' choices, a variable that was not controlled for in this study.

Recommendations

These results have implications for vocational guidance, particularly in contexts in which career decisions are made

during early adulthood. For higher education institutions, the findings may support the development of differentiated psychoeducational support and student well-being programs tailored to specific fields of study. In addition, these profiles may be useful in pre-university vocational guidance processes by helping applicants explore the fit between their individual characteristics and the socioemotional demands of each profession.

Future research would benefit from longitudinal designs that allow the analysis of potential trait plasticity during the university years. The incorporation of mixed-methods approaches is also recommended to deepen understanding of the subjective motivations underlying career choice. Expanding the sample to include other institutions would further help account for sociodemographic variables and achieve a more balanced gender distribution.

Conclusions

This study showed that certain personality and temperament traits are significantly associated with the choice of health sciences degree programs. Higher levels of effortful control were associated with a greater likelihood of choosing Speech-Language Pathology, whereas higher negative affect was associated with Midwifery and Childcare, and greater extraversion/surgency with Occupational Therapy. In contrast, conscientiousness showed an inverse association with the choice of Nutrition and Dietetics. Significant differences were also observed across programs in agreeableness, negative affect, and extraversion/surgency, suggesting the presence of distinct emotional and social profiles that may influence vocational affinity.

Complementary information

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