The Mediating Role of the Perception of Traditionalist Gender Roles in Career Choice on the Association Between Egalitarian Gender Perception and STEM-related Career Preference Among Third (Junior-level) and Fourth (Senior-level) Grade High School Students

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Abstract: The current study aimed to investigate two points among junior and senior-level high school students. First is to examine the mediating role of the perception of traditionalist gender roles in career choice on the association between egalitarian gender perception and STEM-related career preference. Second is to explore differences between gender groups (female vs. male) and school types (Anatolian high school, religious vocational high school, vocational high school, and science high school) in terms of variables and the outcome. A hundred and sixty-four students (76 females, 46.3%; 88 males, 53.7%) between the ages of 15-20 ($M = 17$, $SD = .789$) participated in the study. They responded to demographic information form, gender perception scale, and gender roles in career choice scale. Simple mediation analyses showed the mediating role of the perception of traditionalist gender roles in career choice ($\beta = .144$, 95% CI [.001, .286], $SE = .073$, $z = 1.971$, $p = .048$), as we hypothesized. Exploratory analyses revealed that students in Anatolian high school and science high school preferred egalitarian gender roles more, and preferred traditionalist gender roles in career choice less than those in other types of school. Also, students in science high school preferred STEM-related professions more. Moreover, female students preferred STEM-related professions more than male students. We discussed the findings in the context of social psychology.

Keywords: Egalitarian gender roles, Gender roles in career choice, Gender roles, STEM-related career preference, Traditionalist gender roles in career choice

Lise Üçüncü ve Dördüncü Sınıf Öğrencilerinde Eşitlikçi Cinsiyet Algısı ile STEM İlişkili Kariyer Tercihi Arasındaki İlişkide Kariyer Seçiminde Gelenekçi Cinsiyet Rolleri Algısının Aracı Rolü

Öz: Mevcut çalışma, lise üçüncü ve dördüncü sınıftaki öğrenciler arasında iki noktayı araştırmayı amaçlamıştır. İlk olarak, eşitlikçi cinsiyet algısı ile STEM ile ilgili kariyer tercihi arasındaki ilişkide kariyer seçiminde gelenekçi cinsiyet rolleri algısının aracı rolünü incelenmiştir. İkinci olarak, keşfedici bir amaçla, cinsiyet grupları ve okul türleri arasında değişkenler açısından farklılıklara odaklandık. Araştırmaya 15-20 yaş arası (*Ort.*=17, *SS*= .789) 164 öğrenci (76 kız, %46,3; 88 erkek, %53,7) katılmıştır. Katılımcılar demografik bilgi formu, toplumsal cinsiyet algısı ölçeği ve meslek seçiminde toplumsal cinsiyetin rolü ölçeğini doldurmuşlardır. Hipotezimize paralel olarak, basit aracılık modeli analizi, kariyer seçiminde gelenekçi cinsiyet rolleri algısının aracı rolünü göstermiştir ($\beta = .144$, %95 GA [.001, .286], *SH* = .073, $z = 1.971$, $p = .048$). Keşfedici analizler ise Anadolu lisesi ve fen lisesi öğrencilerinin diğer okul türlerine göre eşitlikçi cinsiyet rollerini daha fazla, kariyer seçiminde ise gelenekçi cinsiyet rollerini daha az tercih ettiklerini ortaya koymuştur. Ayrıca fen lisesindeki öğrenciler ile kız öğrenciler, sırasıyla diğer okul tiplerindeki öğrenciler ve erkek öğrencilerden daha fazla bilim, teknoloji, mühendislik ve matematik (STEM) ile ilgili meslekleri tercih etmektedirler. Bulgular sosyal psikoloji bağlamında tartışılmıştır.

Anahtar Kelimeler: Eşitlikçi cinsiyet rolleri, Kariyer seçiminde cinsiyet rolleri, Cinsiyet rolleri, STEM ilişkili kariyer tercihi, Kariyer seçiminde gelenekçi cinsiyet rolleri

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1. Introduction

The concepts of sex and gender are among the subjects that many disciplines such as psychology, sociology, and medicine frequently work on both in the past and today (Ünal et al., 2017). In the process that starts with learning the gender of the fetus, the lives of individuals are shaped through these concepts (Karabekmez et al., 2018). The concept of sex emphasizes the innate physical, biological and hereditary aspects of individuals and explains being a woman and a man with biological-based categories (Dökmen, 2004). The concept of gender, which derives from this classification, explains the appearance of gender in social life with more concrete judgments and associates being a woman or a man with social and sociocultural processes (Gökcan, 2018). Gender also indicates the obligations of being a man and a woman established in the socialization process and the social roles, responsibilities, and behaviors attributed to individuals by society (Altınova, Duyan, 2013). In other words, gender is not related to the biological and hereditary differences that we are born with; it is related to the expectations of society towards individuals on the basis of gender (Dökmen, 2004). Although these concepts are used interchangeably from time to time, the concept of sex gives a physical reference to the differences between men and women, causing the differences to gain a universal meaning, while the concept of gender rejects the universal meaning of differences due to its connection with the sociocultural structure (Gökcan, Büyükgöze-Kavas, 2018).

From early developmental stages, people gain clues about society and culture by actively observing in order to make sense of the world in the socialization process (Esen et al., 2018). People who socialize according to the society and culture where there are many factors such as family, environment, peers, and mass media develop perceptions, roles, and stereotypes about gender (Altınova, Duyan, 2013). In the historical process, societies have assumed the role of a perceptual filter in terms of norms and beliefs and people's perspectives on others, assigning different meanings to genders and causing the perception of gender to be shaped (Parlaktuna, 2010). Since the gender perception of societies is based on ideological foundations, people's perceptions, behaviors, and roles are also shaped within the framework of this ideology (Temiz et al., 2020). Societies also place outgroup members in different statuses through these ideologies. Sex and gender are the most important criteria in determining this status. Expectations of people's status are defined as social roles. Gender roles, on the other hand, are defined as the norms that people must comply with because of their gender within the framework of social and cultural expectations (Esen et al., 2018).

As stated above, gender roles not only provide the explanation of being a woman and a man but also

express the expectations of society and culture from individuals (Öngen, Aytaç, 2013). Gender roles, which are one of the basic elements of gender, are among the factors that determine the behaviors, duties, and obligations expected from women and men. Gender roles attributed to individuals by societies cause conflicts between the genders (Gökcan, 2018). People start to shape their behaviors in this context by learning their gender roles around the age of three or four. In terms of gender roles, it is possible to examine the roles of men and women under two topics as traditional and egalitarian roles. Traditional roles point to stereotypes in which women are more in the background and men have more active and superior behaviors than women (Dicke et al., 2019). Egalitarian roles, on the other hand, argue that men and women should share responsibilities equally in many issues such as professional and social life (Esen et al., 2017).

In the early stages of life, individuals who are socialized with their families begin to have perceptions of gender roles. Individuals who start to adopt basic knowledge about gender roles before they reach school age are exposed to a new social life by socializing with their peers when they reach school age. This education process and educational institutions are among the most important factors affecting the gender perception and roles of the individual after the family. The knowledge and experience of individuals who have started the education process are increasing (Gökcan, 2018; Temiz et al., 2020). Perceptions and roles towards gender are adopted until adolescence. Adolescence, which is called a transitional age between childhood and adulthood, includes a rapid growth and change process in individuals. With the effect of biological, physiological, and social changes seen in this rapid growth process, adolescents internalize their gender perceptions and complex concepts related to this and begin to define themselves with their "feminine" or "masculine" aspects in order to adapt to the behaviors and attitudes expected from them in line with these concepts (Esen et al., 2018). This situation causes individuals to limit themselves in behavioral, emotional, and physical areas on the basis of their gender. In addition, these limitations are also seen in educational and professional fields (Gökcan, 2018).

Choosing a profession is one of the most important decisions that individuals make in their life. The choice of profession is not only important because of what the individuals will be engaged in, but also choosing a profession is also an essential action as it is effective on economic, social, and many vital issues (Gökcan, 2018; Esen et al., 2018; Hamamcı et al., 2013). Unfortunately, as a result of perceptions, roles, and attitudes created by gender, characteristic occupations are attributed to women and men in almost all societies (Leaper, Brown, 2014); hence, this causes a career choice gap between women and men, and also between female and male students (Gati, Saka, 2001; Singer, 1974).

The perceptions and roles of societies and their career choices on the basis of gender shaped by them limit people in terms of which professions line men and women can take part in and which professions they should prefer (Parlaktuna, 2010). In the historical process, it was stated that men should be more active in fields such as science, technology, and industry, while women should be responsible for housework and the care of family members (Dicke et al., 2019). Although the industrial changes experienced during the industrial revolution brought many radical transformations and developments in working life on a global scale, causing women to be included in business life, the belief that women should be in the background compared to men continued; thus, it has been more difficult for women to gain status, power and economic freedom on the career ladders (Altınova, Duyan, 2013; Çetin-Gündüz, 2017). Although awareness of gender has increased as a result of current developments and changes, it can be stated that gender roles still continue in career choices (Hand et al., 2017; Leaper, Brown, 2014). Especially with the development of information technologies, the importance of science, technology, engineering and mathematics has increased. However, it is thought that gender roles still have an effect on choosing these professions (Zhang, Barnett, 2014).

In recent years, some professions that have been predominantly chosen by males and socially attributed to males until now have been conceptualized as STEM group jobs which include science, technology, engineering, and mathematics-related professions (Anderson, Li, 2020; Ketenci et al., 2020; Robnett, Leaper, 2012). People shape the career choice process by being influenced by their life experiences. Therefore, it is of great importance for individuals to be guided in the right way in this process, to raise awareness of gender, and direct their profession within the framework of their own interests and abilities (Çetin-Gündüz, 2017; Gökcan, 2018). It is assumed that people who assimilate the concepts of gender in family and educational institutions will make their choice of profession, which is one of the choices they should make during the transition from adolescence to young adulthood, under the influence of these concepts. For instance, it is expected that there will be less difference between male and female students in choosing STEM professions in communities with gender egalitarianism. On the other hand, traditionalist perception of gender is associated with expecting men to prefer STEM professions (Hanton, 2015; Leaper, 2015).

On the other hand, in the recent past, it has been stated that the perception of gender alone may not have an effect on career preference, but if this perception spreads to the context of the choice of profession, people would divide the professions as male-female jobs, that is, men will be expected to prefer STEM-related career more (Anderson, Li, 2020; Zhang, Barnett, 2014). As a matter of fact, Social Learning Theory states that adolescence is important in the process of including perceptions, roles, and

stereotypes towards gender. According to the theory developed by Albert Bandura (1969), the principles that are effective on social structure in learning can be used to explain gender perceptions and roles. It is stated that the reward and punishment mechanism at the end of the *observation and modeling* process, which is the basic principle of Social Learning Theory, causes the development of roles, perceptions, and stereotypes towards gender in individuals. It is stated that the sudden growth spurt seen with adolescence increases the pressure on individuals to adapt to expectations, behaviors, and attitudes towards gender roles and perceptions in the socialization process, and as a result, it is stated that individuals shape their identities in this direction by internalizing perceptions and roles. Adopting negative roles can cause negative consequences in many areas of life in the future. From an educational and professional perspective, this situation may cause people to have problems in subjects such as education and career preference, and to question their academic qualifications (Dökmen, 2004; Esen et al., 2018; Gökcan, 2018; Robnett, Leaper, 2012). The results of the studies in the field on this subject also confirm these arguments. For instance, in studies conducted with preschool and primary school students, it has been observed that children begin to adopt these roles and perceptions during the socialization process and they distinguish professions as male and female jobs (e.g., Çetin-Gündüz, Tarhan, 2017; Çimşir, Akdoğan, 2020; Temiz et al., 2020). Studies conducted with university students, on the other hand, showed that gender perceptions and roles brought from past experiences are effective in the profession they prefer (Gedik, Cakir, 2019; Hamamcı et al., 2013; Öngen, Aytaç, 2013; Ünal et al., 2017).

Moreover, in the existing studies for high school students who are in an important period in choosing a profession, it is seen that these studies are generally carried out with the aim of developing scales for the relevant age group; female participants are predominant and focus on similar school types (Esen et al., 2018; Gökcan, Büyükgöze-Kavas, 2018). However, the high school period is a crucial stage for students to choose their careers, and therefore it is believed that it is necessary to evaluate the thoughts of adolescents about gender (Esen et al., 2018; Muenks et al., 2019). In addition, the fielding for the choice of profession in Türkiye becomes clear in the last two years of high school. For this reason, the last two years of high school can be critical in terms of preferring a career. Considering these factors, it is thought that this study, which is carried out with students attending the third and fourth grade of high school, which is of great importance in preferring a career, that is, students preparing for the university exam, the participants are more homogeneous in terms of gender, and the students attending different school types would uniquely contribute to the literature.

In this context, the current study focused on two aims. First, it is to test whether there is a mediating role of the perception of gender roles in career choice on the association between general gender role and

STEM-related career preference among third (junior-level) and fourth (senior-level) grade high school students. Our second aim is to examine whether there is a difference between school types and genders in terms of general gender perception, adopting traditional gender roles in career choice, and choosing STEM-related professions, since there are very few empirical studies in the field. For our first purpose, our hypothesis is that adopting traditional gender roles would have a mediating role. Our second aim focuses on describing the relationship between variables in line with an exploratory purpose.

2. Method

2.1 Participants

A hundred and sixty-four volunteers (76 females, 46.3%; 88 males, 53.7%) between the ages of 15-20 (M= 17, SD= 0.789) attending the last two years of any public high school in the Erbaa district of Tokat participated in the study. Participants attend Anatolian high school[1] (n= 53, 32.3%), religious vocational high school (n= 48, 29.3%), vocational high school (n= 35, 21.3%) or science high school (n= 28, 17.1%). The maternal education level of the majority of the participants was primary school (n= 87.53%) and the respondents mostly classified themselves as middle socioeconomic level (n= 106, 65%).

2.2 Measurements

2.2.1 Demographic Information Form

We collected information about the demographic variables of the participants through this form. In addition, questions about whether the participants would prefer any STEM-related profession were also included in this form. We classified participants' preferences using the STEM definition of the U.S. Department of Education. We coded the variable as "1" for those who wrote that they would prefer the relevant professions, and "0" for those who wrote that they would prefer other professions or were undecided about their career choice.

2.2.2 Gender Perception Scale

We used the gender perception scale developed by Altınova and Duyan (2013) to measure participants' general gender perception score. The scale consists of 5-point Likert type (1= I strongly disagree, 5= I

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[1] It is one of the most common types of high schools providing free education in Türkiye. The purpose of its establishment is to bring high-achieving students to the university. The main difference from other high school types is that this type of high school gives importance to foreign language education and prepares its students for university life more.

strongly agree) 25-items (e.g., Marriage does not prevent a woman from working). Cronbach's α was .872 in the original study and was .881 in the current study. High scores on the scale indicate greater egalitarian gender role preference.

2.2.3 Gender Roles in Career Choice Scale

We used gender roles in career choice scale developed by Gökçen and Büyükgöze-Kavas (2018) to measure participants' perception of the gender roles in their career choice score. The scale consists of 5-point Likert type (1= I strongly disagree, 5= I strongly agree) 17-items (e.g., Management is more suitable for men) with two dimensions that highlight traditionalist or egalitarian gender roles. Cronbach's α coefficients were .88 and .77, respectively, in the original study, the scale Cronbach's α was .872 in the current study. We reversed egalitarian gender role items and finally, high scores on the scale indicate greater traditionalist gender role perceptions in career choice.

2.3 Procedure

First, IRB permission was obtained so that there were no ethical issues in the conduct of the study. Then, local permission was requested for the study by applying to the Tokat Provincial Directorate of National Education. After the permissions were obtained, oral permission was obtained from the school principals by going to the schools, and the purpose of the study was explained to the students in the first 10 minutes of a lesson determined by the principals. Then, a text containing the purpose of the study and a parent-consent form were presented to the students to deliver to their parents. The following week, the students whose parents gave written permission to participate in the study were identified by going to the same class, and the student-consent form, demographic information form, and questionnaire booklet consisting of the scales were distributed to the students. During the study, none of the students reported that they encountered a problem. The measurement process was completed in an average of 10 minutes. No incentives were offered to the participants.

3. Results

3.1 Analytical Approach

The simple mediation model (see, Hayes, 2022, pp. 79-119) with egalitarian gender perception as the predictor (X), STEM-related career preference as the outcome (Y), and traditionalist gender role

perceptions as the mediating variable (M) was analyzed with Jamovi (R Core Team, 2021) version 2.3 (The Jamovi Project, 2022) using *medmod* package was adapted from *R-lavaan* (Rosseel, 2012) package to examine the hypotheses. The standard estimation method was used for standard errors.

3.2 Simple Mediation Analysis

Egalitarian gender perception negatively predicted traditionalist gender role perceptions in career choice (a path, β= -.827, 95% *CI* [-.927, -.726], *SE*= .051, *z*= -16.12, *p* < .001). Traditionalist gender role perceptions in career choice negatively predicted STEM-related career preference (b path, β= -.174, 95% *CI* [-.345, -.002], *SE*= .087, *z*= -1.99, *p*= .047). However, the direct predictive effect of egalitarian gender perception on STEM-related career preference was not statistically significant (c path, β= -.037, 95% *CI* [-.144, .218], *SE*= .092, *z*= .40, *p*= .617). We observed mediating role of the traditionalist gender role perceptions in career choice on the association between egalitarian gender perception and STEM-related career preference (path a x b, β= .144, 95% *CI* [.001, .286], *SE*= .073, *z*= 1.971, *p*= .048) and its mediation percent was .79.6. Moreover, the total predictive effect of egalitarian gender perception on STEM-related career preference was also statistically significant (path c, β= .180, 95% *CI* [.066, .294], *SE*= .058, *z*= 3.10, *p*= .002). Figure 1 presents the current coefficients of the model.
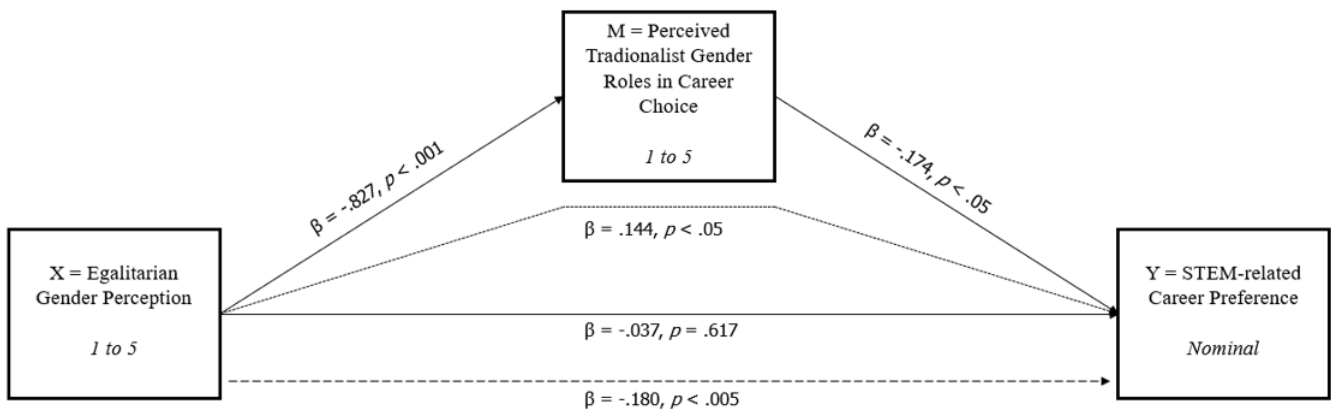

Figure 1. Tested simple mediation model and its coefficients.

3.3 Exploratory Analyzes

We aimed to investigate whether there is a difference between high school types and genders in terms of egalitarian gender perception, traditionalist gender role perceptions in career choice, and STEM-related career preference. First, we ran a one-way ANOVA, and found that students from Anatolian high school

preferred egalitarian gender more (M = 4.28, SD = .562) than those from religious vocational high school (M = 3.80, SD = .629; $t(160)$ = 4.13, p< .001) and, than those from vocational high school (M = 3.71, SD = .514; $t(160)$ = 4.56, p <.001). Also, students from science high school preferred egalitarian gender more (M = 4.50, SD = .581) than those from religious vocational high school ($t(160)$ = 5.06, p < .001) and, than those from vocational high school ($t(160)$ = 5.41, p < .001). However, no difference was observed between students from Anatolian high school and students from science high school. Also, no difference was found between students from religious vocational high school and students from vocational high school.

Second, another one-way ANOVA result showed similar finding pattern, that is, Anatolian high school preferred traditionalist gender role in career choice less (M = 1.85, SD = .651) than those from religious vocational high school (M = 2.31, SD= .595; $t(160)$ = -3.80, p = .001) and, than those from vocational high school (M = 2.56, SD = .618; $t(160)$ = -5.34, p < .001). Also, students from science high school preferred traditionalist gender role in career choice less (M = 1.73, SD = .547) than those from religious vocational high school ($t(160)$ = -3.98, p < .001) and, than those from vocational high school ($t(160)$ = -5.34, p < .001). Similar to the previous analysis, no difference was observed between students from Anatolian high school and students from science high school, and between students from religious vocational high school and students from vocational high school.

Third we focused on gender, and two Mann-Whitney U tests showed that female students preferred egalitarian gender roles more (*Median* = 4.60, *SE* = .057), and preferred traditionalist gender roles in career choice less (*Median* = 1.53, *SE* = .055) than male students (*Median* = 3.68, *SE* = .064, *U* = 1232, *p* < .001; *Median* = 2.53, *SE* = .066, *U* = 1290, *p*< .001, respectively).

Finally, two χ^2 analyses showed that students from science high school preferred STEM-related professions more (f=20), however; students from religious vocational high school and students from vocational high school preferred them less (f = 14, f = 9, respectively; $\chi^2(3)$ = 18.6, p< .001. Moreover, female students preferred STEM-related professions more (f = 41), however; male students preferred STEM-related professions less (f = 29; $\chi^2(1)$ = 7.35, p =.007).

4. Discussion

The current study aimed to investigate the moderating role of the perception of gender roles in career choice on the association between general gender perception and STEM-related career preference among

junior and senior-level high school students. Simple mediation analysis showed the moderating role of the perception of gender roles, as we hypothesized, and we did not observe direct association between egalitarian gender perception and STEM-related career preference. This finding may indicate those general gender roles alone may not be effective in students' choice of profession, and those gender roles should be adopted in the context of career choice in order to differentiate career choice. For instance, Muenks et al. (2019) showed that, apart from general gender roles, the belief and support of their families are important for students to choose STEM-related careers. Zhang and Barnett (2014) also concluded that students' relationships with their parents and peers are effective in choosing STEM-related careers. From this point of view, it can be said that the mediating role of gender roles in a career choice is parallel with the literature.

As expected, a negative relationship was observed between adopting egalitarian gender roles and adopting traditionalist roles in career choices. This finding may be interpreted as the students expressing that as the rate of adoption of one of the gender roles in career choice increases, the effect of the other gender role on their career choice decreases. There are studies in the literature that support this finding. For instance, Gökcan (2018) concluded that as female students adopt egalitarian gender roles in their career choice, the rate of seeing the effect of traditionalist gender roles decreases.

Students who adopt traditionalist roles in career choice tend to prefer STEM-related careers less. This finding may show that as individuals limit themselves in the career choices they shape on the basis of traditionalist gender roles. This finding is supported by previous research results trying to choose STEM professions, for instance, Dicke et al. (2019), in their longitudinal studies, concluded that students who adopt traditionalist gender roles prefer STEM-related careers less in their future. This also may indicate the inhibitory role of traditionalist roles in terms of preferences for STEM-related careers.

Students studying in Anatolian and science high schools prefer egalitarian gender roles more, and traditionalist gender roles in career choices less compared to their peers studying in other high schools. The results in the literature and the findings obtained from the study show parallelism. Esen et al. (2018), for example, found a statistically significant difference in students' gender roles in both egalitarian and traditionalist dimensions according to school type. The egalitarian gender role adoption scores of students studying at science high schools and Anatolian high schools are higher than their peers studying at religious and vocational high schools. In addition, students studying at science high schools tend to prefer STEM-related professions more than their peers studying at religious and vocational high schools in the current study. This finding may be related to the fact that science high school students have higher

academic skills compared to their peers. These high schools accept students with higher primary education scores in Türkiye. These students may prefer egalitarian roles more and STEM-related careers as they take flexible and comprehensive assessments of gender, both as a result of both their already higher academic skills and the science education pursued by the science high school.

Female students prefer egalitarian gender roles more and traditional roles in career choices less. Various studies in the literature have also obtained similar results. For instance, Öngen and Aytaç (2018) found that female students prefer egalitarian gender roles more than male students. Gökcan (2018), on the other hand, showed that male high school students prefer traditionalist gender roles in choosing a profession more compared to female high school students.

In addition, these students tend to prefer STEM professions more than male students in the current study. This finding is in stark contrast to studies that collected data from WEIRD samples. For instance, Hand et al. (2017) (see also, Dicke et al., 2019) concluded that male students tend to prefer STEM professions more than female students because of the belief that male students think they are better in STEM occupations and those female students may face negative situations if they choose STEM occupations. Türkiye is interacting with other cultures since both the effects of traditionalist structure are seen, and it is developing toward egalitarianism in terms of gender context. This situation causes people to be conscious of many issues, such as egalitarian gender roles as a result of education and other cultural interactions, as well as being brought up with the teachings of the dominant culture. In addition, with Türkiye's economic fragility in recent years, female students may prefer economic independence more. Today, STEM-related careers in Türkiye may provide higher financial gains compared to others. Because of all these, female students may prefer STEM-related careers more than their male peers. We also believe that this finding illustrates the importance of accessing non-WEIRD samples.

On the other hand, our research has three main limitations. First, we achieved a relatively low number of participants, although the power analyzes showed that we had sufficient statistical power. This may have caused us to produce false negative results. Future studies may circumvent this limitation by reaching greater numbers of volunteers. Second, we arrived at a relatively isolated geographic region and a homogeneous group. This may undermine the ecological validity of our findings. Future studies may circumvent this limitation by targeting heterogeneous groups with greater social mobility. Finally, we are aware of the drawbacks of conducting the mediation analysis in relational design due to the assumption of causality (see, Roher et al., 2022). Future studies may examine the relationship between variables related to quasi-experimental designs.

In conclusion, we believe that our findings indicate that interventions should be developed not on whether to adopt egalitarian or traditionalist gender roles, but on the handling of gender roles in career choice. In addition, our findings indicate that there is a greater need for gender role interventions in vocational and religious schools. Therefore, future studies may focus on these groups. We think that the high STEM preference of female students is promising. Finally, we hope that more global findings can be achieved through studies that access non-WEIRD sampling, such as the current study.

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