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A q method study on gender (in)equality in faculties of education in turkey: “the glass ceiling is everywhere!”

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Gender inequality manifests itself in academia as in every field. Although the number of female academics has increased quantitatively compared to previous years, there is not enough research on the state of gender inequality today. This study, which aims to reveal how the concept of gender equality (GE) is experienced by academics working in faculties of education in Türkiye, is designed as Q methodology. The participants of this study were selected using maximum variation and snowball sampling, and they were consisted of fifteen academicians working in faculties of education. In addition, it was aimed to ensure diversity by paying attention to the fact that some of the participants were working in public universities and some in foundation universities. The data were obtained because of the participants' evaluation of the items in the Q set. In addition, semi-structured interviews were conducted to determine the participants' views on extreme values. The PQMethod 2.35 statistical program was used to analyze the data in the Q items, and content analysis was used for the data obtained from semi-structured interviews. It was observed that the views of the participants were grouped under two factors; socioeconomic and cultural factors that form the basis of gender inequality (GI) in Türkiye were emphasized, and in this context, social change and legal regulations were suggested as the antidote to GI.

Introduction

Although efforts to transform Türkiye's economy, education, politics, etc. based on gender are noteworthy, it is observed that Türkiye has not reached the desired level in the international arena. The World Economic Forum's (2019) “Global Gender Inequality Report” shows that Türkiye ranks 130th out of 153 countries, 136th in terms of economic participation and opportunity, 113th in terms of educational attainment, 64th in terms of health and life, and 109th in terms of political empowerment. In the report titled “Türkiye's gender equality

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performance 2000-2019” conducted by the Gender Equality Monitoring Association UNDP Türkiye Office (2022) within the scope of the UNDP, it is stated that there is a gender gap in income and education and that women's labor force participation rate is quite low. According to the report titled “Türkiye's Gender Equality Strategy 2017-2020” prepared by the UNDP (2020), Türkiye has come a long way in terms of legal progress on GE, with the establishment of a Parliamentary Commission on Equal Opportunities for Women and Men, enactment of Law No. 6284 on the Protection of the Family and Prevention of Violence against Women, and becoming a party to the Convention on the Elimination of All Forms of Discrimination against Women at the international level. On the other hand, the same report states that despite the strong legislative structure on GE, real transformative results have not been achieved in Türkiye and women continue to remain subordinate in society.

Systematic inequalities in political power and authority, economic resources and decision-making, family relations, media, and culture across the world, in which women are disadvantaged and men advantaged, are perpetuated in part by masculine structures, cultural meanings associated with being male, practices adopted by men, and the collective and institutional organization of men's lives and relationships (Flood, 2015). GI's arise from unequal power relations between men and women and therefore GE assessments need to take into account the relational dimensions of GI (Subrahmanian, 2005). In this context, especially considering the transformative power of higher education over society, it is obvious that higher education has a relational impact on a wide range of issues from the entrance to graduation, from decision-making mechanisms in higher education to the understanding of governance, from the human resources it offers to society to the egalitarian attitude it can create. Accordingly, in the theoretical framework of the study, first the concept of gender, then higher education and GE, and finally the concept of GE in the context of Türkiye are presented from a general to a specific perspective.

Higher Education and GE

In general, the concept of gender is differentiated from biological sex, which refers to biological differences, to emphasize the learned behavior patterns, responsibilities, and expectations of women and men constructed by society (Ecevit, 2003; Günindi Ersöz, 2016). Since gender differences are culturally produced while biological sex is innate, gender is the product of a construction process and means cultural codification or stereotyping (Günindi Ersöz, 2016). Gender is founded on broad cultural characteristics that dictate how people are viewed by society and how they should see, think, and feel, dress, act, and experience their surroundings (Helman, 1990). GE does not mean that equal numbers of men and women or girls and boys are involved in all activities, nor that they are treated similarly (Momsen, 2004). GE does not mean that women and men should be the same but emphasizes that the rights and responsibilities of women and men are independent of whether they are born male or female and that they have equal opportunities and life chances (Roles, 2013; Woroniuk, 2001).

In higher education institutions, despite international activities on GE, studies conducted in different countries show that women remain in the background in universities. Women are consistently underrepresented in senior leadership roles, and this trend is continuing (Nyoni et al., 2017; Morley, 2005). Universities in Switzerland are far from GE (Ziegler, 2001), women are significantly underrepresented among international higher education students coming to the US (Myers & Griffin, 2019), and while there is an increase in the representation of women at the undergraduate level in Portugal and Türkiye, this is not the case as the academic level



increases (Taylor & Özkanlı, 2013). It is also important to assess GI in higher education in terms of vertical and horizontal indicators. A vertical definition is when women are found at lower levels of the academic hierarchy and men at higher levels: The general situation of women in higher education, as shown by a shortened GE pyramid, reveals that women are highly represented at the undergraduate and graduate levels, but underrepresented in two permanent top posts (senior lecturers and professorships) (Lindberg et al., 2011). As evidence of this situation, data from the Council of Higher Education (2023) shows that the proportion of female doctoral faculty members in Turkish universities is 46.5%; the proportion of female associate professors is 40.8%; and the proportion of female professors is 33.9%. In addition, many studies conducted in terms of career patterns show that although the presence of women at the undergraduate level is almost equal and sometimes even ahead of men, this rate decreases as the title increases (Diezmann & Grieshaber, 2010; Harford, 2018; Lindberg et al., 2011; Taylor & Özkanlı, 2013). In this setting, whereas women made up 50% of university teaching personnel in Ireland between 2013 and 2015, they made up only 19% of professors (Harford, 2018); in Sweden, men were ranked particularly high as professors (Lindberg et al., 2011); in Tanzania, the number of women leaders in higher education is low compared to men (Nyoni et al., 2017); in Australia, women are underrepresented as professors compared to men, and women are appointed to professorial positions later and retire earlier than men (Diezmann & Grieshaber, 2010). Despite a rising share of women in administration, PhD programs, and academic enrollment, women earn less than males, work in low-status and small universities, and pursue low-status majors (Dugger, 2001). The rise in the share of women in the labour force does not provide them with more respect and high-paying positions, nor does it provide higher managerial positions for the relatively small number of women who can be considered white-collar (Özkaplan, 2013). According to Harford (2018), attention should also be paid to organizational culture and procedures that are believed to perpetuate such gender disparities and sexist patterns of behavior.

Horizontal segregation is characterized by the professions chosen and the majors studied. Women dominate social sciences, education, and health care (Lindberg et al., 2011). When the participation rates of women in higher education programs are examined within the OECD, it is found that they are involved in disciplines such as science, technology, mathematics, and engineering. In contrast, the participation rate is quite high in disciplines such as education and health (TEDMEM, 2017). In the “She Figures 2018” report prepared by the European Commission (2019), it is stated that women are underrepresented in the population of scientists and engineers, despite their high level of representation in professional employment in higher education.

It is also observed that various alternative policies, projects, financial support, gender quotas, and legal regulations have been implemented to prevent GI in higher education. Since the 1980s, the National Science Board in the USA (2001) has run some programs, including “Faculty Awards for Women, Research Planning Grants for Women, Career Development for Women, and Professional Opportunities for Women”. Countries that have invested little in gender research in the past, such as France, have allocated funds to bring in foreign experts to speed up research in this area (Schiebinger, 2002). For the first time in Italy, a woman was appointed “Minister of Equal Opportunities” in 1996, and during the same period, the Italian government made employment policy decisions such as strengthening the conditions for an increased presence of women in decision-making bodies, raising awareness of GE, reducing occupational discrimination, and assisting in the balance of work and family life (Cantù, 2001). In Germany, the “Special Program for Higher Education”, which lasted from 1996 to 2000, was recognized as one of the most important programs, aiming to promote women in

academia and science by developing special promotional procedures tailored to the needs of women, especially for re-entry after career breaks and parental leave (Majcher, 2002). In Germany, centralized GE in higher education has been adopted as one of the policies; The Women Professors Program, which began in 2008, sought to enhance the proportion of female faculty members while also promoting institutional change in favor of gender equality (Löther, 2019).

GE in Higher Education in Türkiye

When the research on GE in higher education in Türkiye is examined, descriptive studies aiming to reveal the current situation (Özbilgin & Healy, 2004; Özkanlı, 2007; Şentürk, 2015; Yıldız, 2018), comparative studies abroad (Atlama & Özsoy, 2009; Okay, 2007; Özkanlı & White, 2009; Taylor & Özkanlı, 2013), and studies focusing on horizontal and vertical segregation (Adak, 2018; Okay, 2007; Şentürk, 2015) stand out. While the remarkable increase in the number of women in higher education in Türkiye can be considered an important development, it is observed that this increase has not made a significant contribution to GE. When the “Global Gender Equality Report” prepared by the World Economic Forum (2019) is analysed, the results obtained are quite striking. In the said report, Türkiye ranks 101st among 130 countries in literacy rate, 118th in primary and secondary education enrolment, and 112th in “higher education” enrolment. In the report titled “Gender (in)Equality in Higher Education in Türkiye 1984-2018” conducted by Kadir Has University Gender and Women's Studies Research Center (2019), the findings are in line with the international literature. In this report, only 9.1% of rectors, 10.3% of vice-rectors, 21.3% of deans, and 31.2% of professors are women. In the report, it is observed that there is close to GE in the positions of research assistant, lecturer, doctoral lecturer, and associate professor, while the higher the academic title, the further away from an egalitarian perspective is observed.

When focusing on vertical segregation in the context of GI in Türkiye, taking into account the 2019-2020 YÖK statistics, GE in research assistant and lecturer positions was quantitatively balanced between 2010 and 2020; in fact, a superiority was achieved in favour of women in these positions in 2020. Yet, although the rate of women in the positions of doctoral lecturer, associate professor, and professor has gained momentum, it is observed that the proportion of women decreases as they move up title (YÖK, 2019). This decrease can be seen in YÖK (2023) data as follows: 64.35% of research assistants, 55.5% of doctoral faculty members, 46.24% of associate professors, and 37.5% of professors are women working in faculties of education at universities in Türkiye. When these data are analyzed, it is seen that while women constitute the majority in research assistant positions, almost one-third of the professorship positions are held by women. This vertical segregation is mostly explained in the literature through the metaphors of “glass ceiling” and “leaky pipeline”. The leaky pipe is a conceptual framework for academics who are excluded from the system in certain periods of academic life in higher education with an approach like a leaky pipe (Karakuş, 2016). The view that women cannot achieve as much success as men even if they have a qualified education and the necessary qualifications is explained with the “pipeline” metaphor; according to this view, women are not seen as sufficiently trained and qualified (Yıldız, 2018).

When the HEC 2010-2020 statistics are analysed in terms of horizontal segregation, a balance is achieved within the scope of GE in the fields of health, arts, communication, and education, while the almost overwhelming majority of men in the fields of engineering and



religion/theology draws attention. In many studies conducted in Türkiye, it is observed that women dominate the fields of social sciences such as arts, communication, and education, while men dominate fields such as religion, science, mathematics, and engineering (Okay, 2007; Öztan & Doğan, 2015; Şentürk, 2015; Taylor & Özkanlı, 2013). Öztan and Doğan (2015) state that while the rate of female professors in disciplines such as religion, philosophy, history, and archaeology is around 20%, it exceeds 80% in the field of preschool teaching. Şentürk (2015), on the other hand, stated that the fact that processes related to “reproduction” such as a child or patient care are more conducive to gender roles that are considered to belong to women and that women are assumed to be “naturally” more inclined to these processes, cause these disciplines not to be chosen by men and that most female students enter these disciplines. She stated that this situation has increased the number of women in higher education, and that “Preschool Teaching and Nursing” departments, which provide vocational training in childcare and care activities as a public extension of domestic labour, exemplify this process. As can be seen, GI in higher education has different manifestations such as enrolment in higher education, progression in higher education, administration in higher education, preferred field in higher education, daily life-academic life balance, and economic reflections. This study focuses on academics working in faculties of education within the scope of higher education in Türkiye; academic career (progression), institutional governance (decision-making mechanisms), and academic-daily life are taken as a basis. In this direction, it is aimed to reveal how the concept of GE is perceived by academics working in faculties of education, and what subjective views and common/uncommon patterns emerge. In this context, Q technique seeks to comprehend the dimensions of subjective phenomena from an individual standpoint, to identify what is statistically different in these dimensions, and to disclose the features of individuals who have common traits (Dennis, 1986). Based on this aim, answers to the following questions were sought in the research:

1. What are the views of academics working in the faculty of education regarding gender inequality in higher education?
2. What are the common/non-common patterns in the views of academics working in the faculty of education regarding gender inequality in higher education?

Method

Q methodology was utilized in this study. Q methodology (Herrington & Coogan, 2011; Zabala et al., 2018), which integrates qualitative and quantitative approaches to examine the subjective views of individuals directly related to a particular topic, provides an innovative dimension to qualitative analysis through the quantification of patterned subjectivities (Shemmings, 2006). Q methodology offers effective ways for researchers who adopt both quantitative and qualitative approaches to investigate subjectivity (Karasu & Peker, 2019; Millar et al., 2022). The main aim of the Q methodology is typically to examine people's own perspectives, views, and meanings (Previte et al., 2007). In Q methodology, data are collected in the form of Q ranking and then personalized correlation and factor analysis are performed (Stenner et al., 2017, p.212). This study, with a similar approach, it is aimed to reveal the subjective views of academics in Türkiye on GE and the patterns of differentiated or intersecting views. Moreover, in Q methodology, on the one hand, the collective views of the participants on a particular issue are presented, and on the other hand, nuanced differences between these views are identified (Herrington & Coogan, 2011). In other words, Q methodology is an opportunity to identify the points of consensus and conflict developed by social groups (academics) clustered around some common basic elements regarding a certain phenomenon (gender (in)equality) (Demir & Kul, 2011).

In addition, another reason for utilizing Q methodology in this study is the advantages of Q methodology. Zabala et al. (2018) list these advantages as follows: Q methodology combines qualitative and quantitative approaches by providing quantitative data to support the perspectives of the participants. Unlike traditional surveys, which elicit opinions on each topic independently, the Q technique evaluates multiple areas at the same time, exposing how disparate but related topics are interconnected. Furthermore, Q methodology relies on similarities between individuals through factor analysis to synthesize perspectives into a manageable set. Finally, the Q methodology can reduce certain biases, as participants need to explicitly deal with views that they find inappropriate or unexpected. In this context, firstly, a literature review was conducted, the research topic and purpose were determined, then the Q set and Q typeset were prepared, and the items were written on cards and printed. Afterward, the participants were identified in accordance with the Q methodology, and the application was carried out. In the last stage, the findings obtained were reported. Both the literature review, previous research on GE conducted by the researchers, and informal interviews with academics in higher education enabled the research topic to be made more specific. The literature reviews also formed the basis for the preparation of the Q set.

Preparation of Q set and typesetting

In Q methodology, it is necessary to obtain a set of topic-specific statements to form the basis of a Q set (Shemmings, 2006). A Q set reflects the scope of the topic represented, allowing each participant to respond according to their personal experiences (Previte et al., 2007). In this respect, the purpose of the research and the research question are important. In Q methodology, the research question is important as it determines the nature, structure, and sequence of the Q set to be produced and guides the process (Watts & Stenner, 2005). In this context, by utilizing the literature review and considering the research question, the items to be included in the Q set were formed within the framework of three main elements: institutional governance (decision-making mechanisms), academic career (advancement), and work-life balance. Accordingly, 15 items were written under the heading of institutional governance (decision-making mechanisms), 16 items under the heading of academic career (advancement), and 12 items under the heading of work-life balance. In order to ensure the validity of the form, it was sent to two field experts who have conducted various studies on GE, justice, and equality in education, and necessary adjustments were made to the form in line with the relevant suggestions.

The Q set is defined as “a collection of 'heterogeneous items' to be ranked by the participants” (Watts & Stenner, 2005). In the next stage after the Q set is prepared, the participants are asked to rank the statements in a chart called Q-order (Previte et al., 2007). In this process called Q-ordering, the items are placed in a distribution resembling a simplified bell shape by the participants in accordance with the instructions (Zabala et al., 2018). In order to obtain participants' opinions and ratings of their opinions, a Q-string was used on a -4/+4 scale with the statements “Disagree”, “Neutral” and “Agree”.

Participants (K set)

The participants of the study consisted of 20 academicians (5 professors, 5 associate professors, 5 doctoral faculty members, and 5 research assistants) working in faculties of education in Türkiye. In this study, which was conducted by utilizing maximum diversity and snowball sampling, the participants were invited to the research process via e-mail. Since the Q methodology aims to reveal the diversity of views, regardless of whether they are dominant or not in terms of sampling, participants are generally formed by a non-random selection for



the purpose of the research (Zabala et al., 2018). Q methodology-based literature encourages small sample groups (Watts and Stenner, 2012). Additionally, Lee (2017) does not see a large number of participants as important for a Q study and states that it can be considered a waste of time and resources. In this context, maximum diversity sampling was taken into consideration in order to obtain as much diversity as possible regarding GE. On the other hand, since data saturation was reached, the number of participants was left at 20. Information about the participants who differed in terms of gender, seniority, foundation-state university, and socioeconomic environment of the university is given in Table 1:

Table 1. Information on participants

The code	Seniority	Title	Type of university
F1	15	Assistant Professor	Foundation University
F2	33	Professor	Foundation University
F3	6	Assistant Professor	Foundation University
F4	21	Associate Professor	Foundation University
F5	3	Research Assistant	State University
F6	4	Research Assistant	Foundation University
F7	1	Lecturer	State University
F8	20	Associate Professor	State University
F9	3	Assistant Professor	State University
M1	12	Assistant Professor	Foundation University
M2	33	Professor	Foundation University
M3	16	Associate Professor	Foundation University
M4	2	Research Assistant	Foundation University
M5	2	Research Assistant	Foundation University
M6	9	Lecturer	State University

Implementation and data analysis

The participants were explained about the Q methodology and how they should place the Q method sentences in the Q string. At the last stage, they were told that they could change the placement of the Q method sentences in the Q string if they wanted. In the process of placing the Q items in the Q string, the concept of free distribution was adopted, not forced distribution. In free allocation, participants were free to place any number of Q items to the extreme values in the Q string, contrary to forced allocation. This approach is very useful for determining which issues stand out, understanding and evaluating the individual's approach, and identifying new research areas.(Demir & Kul, 2011). It took approximately 20 minutes for each participant to place the Q items face-to-face on the Q string. Then, semi-structured interviews were conducted based on the Q items they placed especially on the extreme values. This allowed the participants to reveal their individual views on GI in more depth and to express the reasons for placing and ordering the Q items on the Q string.

The final stage of the Q methodology process is the analysis, in which subjects' responses are typically subjected to factor analysis to identify patterns among individuals (Previte, et al., 2007). In this context, the Q charts of each participant were analysed through principal component analysis using the PQMethod 2.35 statistical program. Factor analysis was performed using principal component analysis (PCA). Factor loadings were created with Varimax rotation. In addition, the participant's responses to the questions in the semi-structured interview form were analysed using the content analysis method.

Results

The factor loadings obtained from the participants after principal component analysis and rotations using the "PQMethod 2.35" program is as shown in Table 2:

Table 2. Factor loadings

Participants	Factor 1	Factor 2
F1	0.14	-0.35
F2	0.69X	0.12
F3	0.58X	-0.05
F4	0.35	0.16
F5	0.18	-0.26
F6	0.26	0.16
F7	0.54X	-0.06
F8	0.72X	-0.15
F9	0.57X	-0.34
M1	-0.04	0.44X
M2	0.63X	-0.04
M3	0.49X	0.166
M4	0.56X	0.29
M5	0.07	0.65X
M6	0.40X	0.15

In order to find statistically significant factors, the formula "Standard error = $(1/\sqrt{\text{number of statements}}) \times 2.58$ " created by McKeown and Thomas (1988) was used. In this context, the significance value was calculated as "0.39". As shown in Table 2, it is seen that the factors obtained from nine participants (60%) in factor 1 and 2 participants (14%) in factor 2 are significant and the participants are gathered in two factors. Four participants (F1, F4, F5, F6) did not significantly load on any factor.

Table 3. Z scores for the items in the Q set

Item numbers in the Q method string	Factor 1		Factor 2	
	Z	Rank*	Z	Rank*
M1	-1.4	41	-0.97	36
M2	-0.24	25	0.18	17
M3	1.41	5	0.05	20
M4	1.8	2	1.62	4
M5	0.62	13	1.04	9
M6	-0.92	36	0.27	16
M7	-0.57	28	-0.46	26
M8	-0.74	32	-0.87	34
M9	0.04	20	-0.51	30
M10	1.56	3	1.04	8
M11	-0.88	34	-1.48	41
M12	0.07	19	-0.47	27
M13	-0.11	23	-0.76	32
M14	-0.23	24	-1.24	39
M15	-0.03	21	-0.92	35
M16	0.63	12	1.82	3
M17	0.23	17	0.54	13
M18	0.6	14	0.68	12
M19	-1.61	42	-0.48	28
M20	1.07	9	1.99	1
M21	-1.3	38	0.87	11
M22	-0.61	29	-1.28	40
M23	0.18	18	0.34	15

M24	-0.82	33	-0.32	24
M25	0.55	15	-0.05	22
M26	1.25	7	-0.8	33
M27	-0.43	27	0.99	10
M28	-0.06	22	0.53	14
M29	0.52	16	1.17	7
M30	-1.32	39	1.97	2
M31	-0.72	30	1.28	5
M32	1.44	4	-1.02	38
M33	-1.07	37	0.05	18
M34	-0.73	31	1.17	6
M35	1.99	1	0	21
M36	0.64	11	-0.67	31
M37	-1.33	40	-0.4	25
M38	-1.71	43	-0.07	23
M39	1.26	6	-1.6	42
M40	-0.88	35	-1.77	43
M41	0.89	10	0.05	19
M42	-0.25	26	-1	37
M43	1.21	8	-0.51	29

When Table 3 is analysed, the items that the participants evaluated most positively within the scope of Factor 1 were the statements “The fact that childcare is mostly seen as the mother’s duty puts women at a disadvantage in academia (M35)”, “There is a need for an institutional governance approach in which GE is considered in higher education (M4)” and “Cultural structures in society are effective in GI in decision-making positions (M10)”. Within the scope of Factor 1, the items that the participants evaluated as the most negative were the statements “There is no relationship between achieving GE at home and academic progress (M38)”, “Women are in an advantageous position in providing employment in terms of an academic career (M19)” and “GE in decision-making positions in higher education is given due importance (M1)”, respectively.

When Table 3 is analysed, the items that were evaluated most positively by the participants within the scope of Factor 2 were “Incentive practices (gender-based quota, additional funding, and so on) are an important requirement for academic progress (M20)”, “Research conducted by women academics in academia is not given much importance and women scientists are systematically ignored (M30)” and “The current state of GE in higher education increases individuals’ concerns about academic progress (M16)”. Within the scope of Factor 2, the items that the participants evaluated as the most negative were, respectively, “Male academics work longer hours than their female colleagues (M40)”, “Women are generally expected to assume primary responsibility for the care of family and home life, even if they are working and earning income (M39)” and “Actions taken towards women in decision-making positions in terms of ensuring GE are not a positive practice contrary to popular belief (M11)”.

Socioeconomic and cultural factors underlying GI: The glass ceiling is everywhere!

In the interviews with the participants, it was stated that GI continues to have a strong impact on higher education and that this is due to cultural perception, social perspective, and economic reasons. It is stated that this situation creates invisible “glass ceilings” against women academics and hinders the process of progress in academic career (advancement), institutional governance (decision-making mechanisms), and academic-casual life. In this context, it is seen that the number and functionality of women academics, especially in

managerial positions, are criticized. For example, F2 stated that women have a strong quantitative presence in the faculty of education, but they are not sufficiently involved in managerial positions. She illustrated this situation with examples from her own professional life, stating that people with higher titles in higher education tried to intervene in her private life just because she was a "woman", and that she had to struggle with allegations that her performance decreased after marriage compared to when she was single.

In general, there are not a few women on the academic staff, although there are a few on the management staff... Even though we exist, I do not think it means that women are comfortable in academia. We have problems with what being present adds or takes away from us. For example, in the second or third year of my marriage, a female professor, who is older than I am, and a male academic, who is older than me, told me, "Don't have children!" The female academic said, "Professor, these things have a biological time". The male professor said, "IVF will do it." Again, when I was a research assistant, although there was no change in the way I did the job, my professor said this: "You got married and started to procrastinate!"

In support of this, F3 stated that GI in higher education exists implicitly, although not explicitly. In addition to this, she stated that women administrators are in managerial positions in higher education, but that this is not very functional and that this situation stems from society's view of women. In addition, she stated that the duties and responsibilities brought about by the stereotypes arising from motherhood and domestic responsibilities create various negativities against women in academics:

"When you look at it, even though there are women in management positions, I think that they do not have much say and are chosen as people who will obey decisions. From the outside, academics are told that they have free time at work. Even though there is a division of labour in our home, childcare falls on the mother and I had a very difficult time in the first periods. I wanted to leave my institution early, but it was not possible. Even this is GI..."

F4 attributed the fact that women are not or cannot be managers in the world of academia to the large number of men in management positions and the fact that the management profile created by society is not suitable for women. F4 stated that Turkish academia is predominantly male, which allows men to engage in activities together in social life outside of work life. As a result of this situation, she stated that men are sincerer among themselves.

When you talk about management, it changes completely. In the process of finding a place there, you have to establish some relationships and networks, there are many men there. Some things are not very formal. For example, when they say let's all go fishing together, you cannot go fishing as a woman, but a lot of things are discussed there. It is important whether she is included in those groups or not.

Regarding women's unsuitability as managers, F4 stated that in Turkish society there is a perception that a manager should be tough, decisive, and have the ability to exert hierarchical pressure on subordinates, and that these characteristics are mostly attributed to men.

Secondly, they don't want it as much as men. Two things play a role in their reluctance. The roles attributed to women do not fit the understanding of management in our society. They may not take a smiling profile seriously. The woman cannot see herself there. We do not have such an understanding. As a manager, we expect a manager with a furrowed brow who can bang her hand on the table."

Another common denominator emphasized by the participants is the negative projection of domestic duties and responsibilities imposed on women due to social norms and stereotypes of academic life. F4 expressed that the social perspective on GE is negative in all areas by giving examples from her own life. First, she stated that her mother directed her to "professions suitable for women" that would not hinder women's responsibilities in choosing

a profession. She also stated that in higher education, she had to be assigned to stereotypical jobs such as cleaning the house, serving, and preparing meals, which are associated with being a woman both at home and in the public sphere:

“My family told me to become a teacher, the best profession for a woman. That's what my mother said. When there is housework, my husband sees my writing articles as a hobby. People who are going to present their qualifying exam are stressed... The juries expect them to eat and drink. When it comes to gender, these are expected more from women. They ask women about the food brought in, “Did you make this?”. And it was usually women who did this. A few female professors did not let male assistants do work. We were in charge of things like fetching tea and serving. Women were as responsible for academic duties as men, but they were also responsible for service. After I became a lecturer, one of our female lecturers said something like, “Let the female assistants with good writing come. She made them work as secretaries...”

M1 stated that the stereotypical roles attributed to women in society create various difficulties in their professional lives in higher education. He states that the social expectations formed for women academics in private life at home have to be adopted by women academics over time. He states that this situation causes women academics to have to turn their focus to the domestic sphere rather than academia:

“In the first years, although positive discrimination against women may be more, some imbalances develop as a result of the role defined for women in society, between career and motherhood... As time passes, female academics tend more toward family life. They move away from academia with the thing that comes with moving away from there. If statistics are kept as single, married, with or without children, different results can be obtained”

F4 also stated that in parallel with the social perception stemming from gender, women have more responsibility in the distribution of roles in family work, and in this context, the fact that men are only seen as “helpers” in housework by society is an important example. She stated that women who become the subject of domestic responsibilities based on GI are psychologically burdened due to social expectations:

“Women have more domestic burdens than men. Even the word “helper” paints a portrait. A helper means that the main responsibility is on you, and she will help you if she feels like it. Therefore, women need to make more effort at this point. There is such a perception not only in the relationship but also in the social sense. Your mother and female relatives have higher expectations of women...”

F3 explains women's acceptance of this social perspective with an example from her own life. She stated that the female academic organizing the congress she attended did not put her photograph on the poster because the people invited by the female academic organizing the congress were men and more importantly, the female academic organizing the congress did not put her photograph on the poster, and the reason for this was that she did not see herself as sufficient compared to male academics:

“The organizer of a congress was a woman and she invited 3 men as invited speakers. Only their pictures and names were there. When I asked why she didn't put her name on it, she said she wasn't ready yet. A few of our friends put their names on similar events, but there is always such an invisibility thing in light yellow colour. Men also use it.”

F1, stated that men were preferred more in determining the research assistants during his assistantship period due to the idea that men would work more than women regardless of time. *“Men are more often chosen for employment in the assistant department. The reason for this is the idea that men work day and night...”*

One of the most important reasons for GI in higher education is economic income and the fact that financial expectations for women are lower than for men. While explaining this situation, F3 gave examples from her own life and stated that when she started her career, she received a lower salary than her male colleagues. She stated that when a woman academic in higher education is economically strong, she could receive services related to childcare or household chores and thus be more comfortable in devoting time to her profession:

“The biggest obstacle is economic! Even in childcare, if you have an economic income, you can do the division of labour. I started with a much lower salary than male academics. There is a managerial view that a woman doesn't need much, you have a husband, make do with it. If I hired a babysitter for the child, if I hired someone to clean the house, it would exceed the money I earned...”

The antidote to GI: Social change and legal regulations

In the interviews with the participants, a number of solution suggestions emerged to eliminate GI in academia. The first of these is to change the negative social perspective towards women. M1 stated that women's perspectives are also shaped by the society in which they are raised and that the situations in the family can only be improved by changing the perspective of individuals.

“Solving this situation is a social thing; women position themselves in this way. In terms of equality between men and women, when you are a mother or a father, leave rights are equal. The father can also take unpaid leave. This is how the human mechanism works; the child is primarily dependent on the mother in terms of development. After six months, the conditions are equalized. If the woman does not agree with her husband in this way, if she decides to continue as it is in society, decision-makers have nothing to do. If the mother says that she plays too much of a role, it can be regulated within families. At this point, efforts can be made to raise awareness, and if it is pressure, efforts can be made to remove it.”

Although F1 acknowledged that the world of academia is a difficult path, she stated that women who choose this profession can overcome these difficulties. Although society's perspective towards women or the process of becoming a mother is an important obstacle in women's academic life, she believes that it can be overcome.

“Academia is a challenging and thorny path, and academics are stubborn and can afford to take it. Having housework or motherhood is not a complete obstacle, but it is an obstacle in the easy or difficult passage of this path. If a woman has started on this path, she completes it”.

In addition, F1 attributes the decrease in gender inequality in universities compared to the past to the increase in women's awareness. However, it does not link the awareness of women to any practice. She thinks that this situation will be solved in its natural flow by seeing the academician as a human being, not as a woman or a man.

“Perceptions and cultural codes have not changed. Women's awareness has increased. I don't think it is an increase brought about by an existing practice... If left to nature, equality will find its place by itself. It is very important to raise boys. I think there can be equality when we stop emphasizing that you are a man. No woman tells her daughter that she is a woman, that is, instead of superiority, expressions such as you should be sacrificial are used.”

F2 argues that to raise awareness of individuals, there should be parenting schools or a similar structure as in previous years. On the other hand, she stated that GI exists not only in academia but also in other professions and that laws should be functionalized as well as raising awareness of individuals to solve this problem:

“To ensure GE at home, parents also need to be aware. When they decide to share a common life, they

should receive counselling on how to do this. In the 90s, parenting courses were opened at public education centers, and these courses should continue to increase. They should be free of charge. They can learn how men and women can be equal. It would be positive for them to receive such training.”

F3 also thinks that GI can be solved through legislation. She cites parental leave for both genders, flexible working opportunities, and clear wage equality, which are practiced in some European countries, as examples. On the other hand, she thinks that the policies of local regional administrators or the availability of day-care centers in the institutions where they work would also be important tools:

“In Finland and Italy, parental leave is paid and longer, or there is the possibility to work at home. It is not only women. Men can also take leave. We also have some rights, but since women have a lot of leave rights, why should we employ women, then I should hire male employees. There can be flexible working opportunities. There should be a clearer policy to ensure pay equality. Day-care centers at workplaces. There should be places like kindergartens where mothers or fathers can take care of them during their lunch breaks. Free day-care centers in neighbourhoods...”

In fact, similar to F3, F4 stated that she showed half performance due to the unfavourable conditions for women. Working hours are officially set without taking into account women's status as pregnant women or mothers. In addition, she stated that existing laws were not implemented. Therefore, she believes that there should be laws and their implementation in order to eliminate gender inequality.

“We are no longer able to perform as we should. We are doing one work when we should be doing two. There is no policy to support the family. It's about working hours. It is left to informal relations. How to support pregnant women, parents with children. Legally, an institution with 50 children should have a kindergarten, but I have never seen an institution with a kindergarten. If the institution has a day-care center, it would be an incredible relief for parents. I don't think these things can be solved with legal regulations. The lack of policies that support the perspective is problematic...”

Discussion and conclusion

This study, it is aimed to reveal how the concept of GE is perceived by academics working in faculties of education in Türkiye and what the subjective views and common/uncommon patterns are. Therefore, this section discusses the general trends of our findings and presents the conclusions reached.

Academic Career

In the current research, as a result of both quantitative and qualitative data, it has been observed that both employment opportunities and financial income, duties and responsibilities arising from the domestic sphere, and stereotypical male dominance regarding managerial positions create glass ceilings for women academics in many areas. “Being a mother and wife”, which are characterized as the main duties of women, cause women to spend most of their time at home, ensuring the reproduction of the house and its contents (Şentürk, 2015). In the research conducted by Dikmen and Maden (2012) on the “invisible labour of women academics” in Türkiye, it is stated that the patriarchal understanding in which domestic work is carried out under the responsibility of women continues to exist, on the other hand, while domestic production provides a great benefit to reproduction, it is not compensated considering that this is already a “woman's duty”, this situation negatively affects women's participation in labour markets, and they are easily exploited in these markets for reasons such as childcare or childbirth. When considered as an academic career, the impact of academic performance, especially in the first years of professional life, on future years is important. The fact that female academics are seen as primarily responsible for childcare and household

responsibilities by society in this period, in addition to feeling both biological and social pressure in terms of having children, may have a negative impact (Caprile, Daniele, O'Dorchai, & Valles, 2011). As a result, the duties and responsibilities attributed to women by society can be said to be one of the important obstacles in the professional careers of female academics.

Decision-making Mechanisms

As a result of the obstacles women academics face in their academic careers, they cannot find a place in decision-making mechanisms in academia (Winchester, & Browning, 2015). One of the concerns that all participants in the current study completely agreed on is that one of the most significant barriers for women academics to participate in management roles is the challenges they confront in the academic career path. When the results of the Z scores for factor 1 in the study are examined, it is supported that both the cultural structure and the responsibilities imposed on women are effective in front of female academics. In this process, there may be many invisible boundaries ranging from the leaves to be taken after childbirth in the context of maternity duty to the misconception that women can make emotional/fragile decisions in managerial processes, from the prejudice that non-academic responsibilities can create a barrier in international research/travel to the understanding that they cannot work out of working hours in terms of project management. In addition, there is a belief that the academic world has a masculine structure (Caprile, Daniele, O'Dorchai, & Valles, 2011). Henningsen (2001) asserts that there is an urgent need to integrate existing quantitative research with culturally oriented assessments to discover gender stereotypes in academic contexts, positions, attitudes, or employment open to men but not to women. As Öztan and Doğan (2015, p. 215) state, "In addition to numerical trends, it is of great importance to interrogate the "home state" of the academy from a gender perspective, to reveal women's vulnerabilities and strengths in the academy, to combat masculine policies, cultures, and experiences in the academy and to create an egalitarian university environment.

Work-life Integration

Another variable in the emergence of GI is women's economic power. It is a result of research that women have lower salaries than their male colleagues (Harmon et al. 2018; Mason, Nicholas, & Marc, 2013; VanDewarker, et al., 2018). As a matter of fact, in this study, economic power was seen as one of the most important problems in front of GI experienced by women. In order for women to overcome the responsibilities imposed by society and the responsibilities of being a mother (Toffoletti and Starr (2016), the family needs to receive cleaning services for the house or childcare services. Similarly, the availability of childcare services for families with children in institutions is a situation that will relieve families in terms of their professional lives in this context. Furthermore, policies that encourage the father's equal role in childcare with the mother must be implemented. Fathers are allowed time off to care for children in Portugal and Sweden, for example, while mothers return to full-time work (Hobson, Fahlén, & Takács, 2014). Rosa (2021) critically reviewed the state of women's academics in life and work balance. Rosa (2021) noted that women lag behind men in terms of achieving a balance between academic work and life, owing to both the great number of hurdles in their path and the societal tasks ascribed to them (e.g., childcare, housework).



Conflict of interest statement

There is no conflict of interest between the authors.

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APPENDIX 1

1. Gender equality is given due importance in decision-making positions in higher education.
2. In terms of gender equality, foundation universities exhibit an egalitarian approach in decision-making positions compared to public universities.
3. People in decision-making positions in higher education do not consider gender equality.
4. There is a need for an institutional governance approach where gender equality is taken into consideration in higher education.
5. The socio-economic environment in which universities are located is important in ensuring gender equality in terms of institutional governance.
6. It does not seem possible to achieve gender equality in terms of institutional governance.
7. In terms of gender equality, public universities are more egalitarian in terms of institutional governance compared to foundation universities.
8. Regardless of the socio-economic environment in which universities are located, universities are moving towards "full gender equality" in terms of institutional governance.
9. Equitable practices in higher education in terms of decision-making positions are promising.
10. Cultural structures in society are effective in gender inequality in decision-making positions.
11. In terms of achieving gender equality in decision-making positions, actions against women are not a positive practice, contrary to popular belief.
12. A quantitative approach to gender equality makes no real contribution.
13. Although women reach decision-making positions in academia, they are influenced by the male-dominated environment and do not work to eliminate gender inequality.
14. Women do not want to see their fellow women in a higher position than themselves.
15. Female managers in decision-making positions treat other female academics negatively compared to men.
16. The current state of gender equality in higher education increases individuals' concerns about academic progress.
17. Obstacles to women in terms of academic careers are one of the important reasons for women's participation in managerial positions.
18. Practices to ensure gender equality in academic careers are insufficient.
19. Women have an advantageous position in securing employment in terms of academic careers.
20. Incentives for academic progress (gender quotas, additional funding, etc.) are an important requirement.
21. Gender inequality decreases as one progresses from research assistant to professorship.
22. The current state of gender equality in higher education in terms of academic careers does not raise any concerns.
23. Gender balance is not taken into account in quantitative terms in appointments and promotions in higher education.
24. There are mechanisms to promote gender equality in higher education in terms of academic careers.
25. It can be stated that men are ahead of women in terms of employment throughout their academic careers.
26. The chances of female academics to have appropriate role models to guide them in being both an academic and a mother are lower than the chances of men to find role models for themselves as both fathers and academics.
27. At the beginning of their professional years, women are less likely to be placed in academic positions than their male colleagues.

28. Male academics earn more money than female academics.

29. The fact that men hold top positions in academia (professors or administrators) creates a male-dominated environment.

30. In academia, research by women academics is undervalued, i.e. women scientists are systematically ignored.

31. There is a prevailing view in academia that women cannot be as successful as men, even if they have sufficient education and qualifications.

32. Men are more advantageous than women in creating a work-life balance in higher education.

33. There are supportive mechanisms to ensure work-life balance in higher education.

34. Men face various obstacles in balancing their responsibilities at home and in academia.

35. The fact that childcare is mostly seen as the mother's duty puts women at a disadvantage in academia.

36. Being a woman in academia creates disadvantages in creating a work-life balance.

37. It is usual for the work-life balance in higher education to be in favor of men.

38. There is no relationship between achieving gender equality at home and academic progress.

39. Women are often expected to take primary responsibility for the care of family and household life, even if they are working and earning an income.

40. Male academics work longer hours than their female colleagues.

41. Female academics are constantly in a dilemma about when to have children during their academic career.

42. After receiving associate professorship, female academics may spend more time on their private life (marriage, having children, etc.) and may experience a decrease in academic productivity.

43. Male academics are less likely than female academics to be confronted with the choice between having a family and a career.
