Yükseköğretim Dergisi
Journal of Higher Education (Turkey)

The Effect of a Gender Course on the Gender Attitudes, Critical Thinking Dispositions, and Media Literacy Skills of University Students

Toplumsal Cinsiyet Dersinin Üniversite Öğrencilerinin Toplumsal Cinsiyet Tutumları, Eleştirel Düşünme Eğilimleri ve Medya Okuryazarlığı Becerileri Üzerine Etkisi

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Özet

Araştırmada, üniversite öğrencilerine seçmeli olarak verilen Toplumsal Cinsiyet dersinin öğrencilerin toplumsal cinsiyet tutumuna, eleştirel düşünme eğilimine ve medya-okuryazarlığı becerisine etkisini değerlendirmek amaçlanmıştır. Bu çalışma ön test-son test kontrol gruplu yarı deneysel desen kullanılarak yapılmıştır. Araştırmanın örneklemini 2016–2017 öğretim yılı güz döneminde Toplumsal Cinsiyet dersini alan 74 ve dersi alanlarla benzer özellikte olan ve dersi almayan 70 öğrenci oluşturmuştur. Sömesterin ilk haftasında yapılan ön test ve son haftasında yapılan son test değerlendirmelerinde, her iki grupta bulunan öğrencilere Öğrenci Bilgilendirme Formu, Toplumsal Cinsiyet Rolleri Tutum Ölçeği (TCRTÖ), Eleştirel Düşünme Eğilimi Ölçeği (EDEÖ), Medya Okuryazarlığı Ölçeği (MOÖ) uygulanmıştır. Toplumsal Cinsiyet dersini alan öğrencilere dönem sonunda Ders Memnuniyeti Değerlendirme Formu uygulanmıştır. Toplumsal cinsiyet dersi alan öğrencilerin dersin sonunda TCRTÖ puanlarının arttığı (ön test: 98.90±12.18, son test: 104.42±11.28; p<0.05), her iki grubun TCRTÖ ön test toplam puan ortalamalarının benzer olmasına rağmen, son test toplam puan ortalamaları arasında istatistiksel açıdan önemli fark olduğu belirlenmiştir (p<0.05). Bu sonuçlar doğrultusunda; öğrencilerde toplumsal cinsiyet farkındalığı kazandırılmasında, müfredata Toplumsal Cinsiyet dersinin entegre edilmesi ve öğrencilerde eleştirel düşünme eğiliminin ve medya okuryazarlığı becerisinin geliştirilmesi amacıyla daha kapsamlı ve uzun süreli çalışmaların yapılması önerilebilir.

Anahtar sözcükler: Eleştirel düşünme, medya okuryazarlığı, mesleki eğitim, toplumsal cinsiyet rolü, tutum.

Abstract

This study aims to determine the effect of a university elective course focusing on gender on students' gender attitudes, critical thinking dispositions, and media literacy skills. The research design was quasi-experimental, and the study was conducted with a pretest/posttest control group. The sample of the study consisted of 74 students who took a course on gender during the fall semester of the 2016–2017 academic year and 70 students who had similar characteristics but did not receive the course. In the pretest and posttest evaluation conducted in the first week and the last week of the semester, respectively, the Student Information Form, the Gender Roles Attitude Scale (GRAS), the Critical Thinking Dispositions Scale (CTDS), and the Media Literacy Scale (MLS) were administered to the students in both groups. The Course Satisfaction Assessment Form was administered at the end of the term to the students who enrolled for the gender course. The GRAS scores of the experimental group increased at the end of the course (p<0.05). The GRAS total mean scores of both the groups were similar in the pretest, but there was a statistically significant difference between their total mean scores in the posttest (p<0.05). This study recommends more comprehensive and long-term studies on integrating a gender course into the university curriculum, which will help develop students' critical thinking disposition and media literacy skills and raise awareness of gender equality among students.

Keywords: Critical thinking, gender attitudes, gender role, media literacy, professional education.

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Gender is a complex concept consisting of ideas, behaviors, and emotions concerning the significance of being male or female within a particular place, culture, and time (Baig, 2015). Culturally created and learned gender roles, which designate different social responsibilities and functions for women and men, make them differ from each other. These roles influence not only the place and position of both women and men in society but also the sharing of power and resources between the genders (Ökten, 2009). Gender roles not only vary based on the societies but also create significant differences in professional life (i.e., working area and status), social life (i.e., leisure time activities, taste in music, book preferences, clothing choices, way of talking, attitudes, and behaviors), and the sexual experiences of women and men (Wood & Eagly, 2012).

Children are first exposed to gender roles in a home environment under the influence of their parents and family (Raffaelli & Ontai, 2004). As age progresses, interaction with peer groups and teachers in schools and social life plays an important role in the formation of gender roles (Fényes, 2014; Stockard, 2006). Gender-related roles are featured in educational books, fairy tales, and the media and are upheld and perpetuated in families, societies, and cultures, thereby reinforcing the culturally created roles and ensuring their acceptance by people (Güvenç & Aktaş, 2006). As a result, the knowledge, attitude, and behavior of women and men are shaped according to the expectations of society. While these expected differences between men and women increase during adolescence, they become more pronounced during university years (Güzel, 2016).

Training should be given to young people on the concept of gender during university years; they should gain the ability to critically evaluate the sexist language and comments used in social life and the media, in addition to developing egalitarian gender roles and attitudes. Considering that young people are the heaviest users of new media tools (Puchner, Markowitz, & Hedley, 2015), the importance of gaining media literacy and critical thinking skills for the development and maintenance of egalitarian gender roles and attitudes has become even more evident. Representations of women in the media, both positive and negative, are frequently encountered. Mass media, in which examples of women's social status and traditional role are exhibited in abundance, is the most important environment that makes these visible and constantly reinforces the relationship that is based on discrimination and power inequality between men and women (Güzel, 2014). In the media, men are often portrayed as strong and active, whereas women are shown as passive and powerless. Women are often reduced to the body rather than the mind and personality values; social media, ranging from commercials to news programs, exhibit women as a set of images consisting of young, beautiful, sexy, charming, or attractive features (Arslan, 2004; Polce-Lynch, Myers, Kliewer, & Kilmartin, 2001). Thus, gender discrimination is internalized, and gender inequality is reproduced through various verbal, printed, written, and visual texts and images. The representation of women in a secondary position in the media, their portrayal in a negative image in literature and the media, and the sexist approach of the media contribute to gender stereotyping, which not only holds women back in society but harms the society in general (Gauntlett, 2008; Güzel, 2014).

Young people need to develop media literacy to be aware of and protect themselves from the sexist approaches in the media. Media literacy comprises a series of communication competencies that include receiving, analyzing, evaluating, and transmitting information, including written and non-written messages, by employing a critical thinking perspective (Puchner et al., 2015; Scharrer & Ramasubramanian, 2015; Thoman & Jolls, 2004). The main purpose of media literacy is to provide individuals with the ability to keep track of media tools as well as make informed choices and judgment as users of those tools (Karadeniz & Can, 2015; Kurudayıoğlu & Tüzel, 2010). To use media literacy effectively, it is required to have a developed skill of critical thinking since it will enable students to critically evaluate the traditional messages on gender transmitted by media tools and produce egalitarian messages of their own. A well-developed critical thinking skill enables young people to recognize behaviors that promote gender inequality and safeguards them from the effects of negative messages (Pinkleton, Austin, Chen, & Cohen, 2012).

Although the correlation between media literacy and critical thinking is explained conceptually in the literature (Kurt & Kürüm, 2010; Silverblatt, Miller, Smith, & Brown, 2014; Sperry, 2012; Worsnop, 2004), it is observed that there are only a few studies conducted on this topic (Arke, 2005; Aybek & Demir, 2013; Feuerstein, 1999; Puchner et al., 2015). Feuerstein (1999) and Arke (2005) reported a significant correlation between media literacy and critical thinking skills of students, and revealed that media literacy was an important tool in the acquisition of critical thinking skills (Arke, 2005; Feuerstein, 1999). Conversely, in the study by Aybek and Demir (2013), a low positive correlation was found between the critical thinking skills and the media literacy skills of the students. These results indicate the necessity of analyzing media literacy and critical thinking skills together in education. Such an approach will help students in developing the

ability to perceive the messages on gender roles shared through media tools, analyze them critically, and create their own messages (Aybek & Demir, 2013).

Several scholars have researched gender identity development in early childhood. They have also focused on the longer-term influences on the gender identity development of young people and the availability of resources and opportunities to them (Bussey & Bandura, 1999; Saewyc, 2017). Young people learn gender roles in the process of demonstrating behaviors that are considered appropriate for their gender. They are already equipped with gender-based thinking and behavior when they begin school. Gender role identity continues to evolve throughout the education process (Esen, 2013). In Turkey, undergraduate students uphold traditional gender roles, and they continue to sustain and perpetuate these roles as they prepare for their future. The way to reach an egalitarian society is through an education system and schools free from sexist stereotypes (Seçgin & Kurnaz, 2015). Adolescence is an important developmental stage as both boys and girls begin to be influenced by social expectations and notice limitations in their behavior due to their gender (Landry, Vyas, Malhotra, & Nagaraj, 2020). Therefore, the youth and the university education process can be considered as opportunities to advance egalitarian roles in terms of gender roles (Chatard & Selimbegovic, 2007; Erden, 2009). Accordingly, undergraduate students should be educated about gender roles (Çelik, Pasinlioğlu, Tan, & Koyuncu, 2013; Vefikuluçay, Zeyneloğlu, Eroğlu, & Taşkın, 2007), and it is necessary to include courses related to gender in the university education (Erden, 2009). Gender courses offered to undergraduate students will help them to critically examine their judgments, assumptions, and prejudices and to establish relationships based on equality (Bakioglu, 2019). Several studies have asserted that a gender course helps students develop more positive attitudes toward gender roles (Egelioğlu Cetişli, Top, & Işık, 2017; Seçgin & Kurnaz, 2015; Yilmaz, 2018). The course on gender has been offered as an elective course to all undergraduate students since 2012 in the university where the present study was conducted. Activities that are part of the gender course will contribute to the development of the students' egalitarian gender attitude and the enhancement of critical thinking and media literacy skills. The related literature has no studies that examine the effect of a gender course on gender attitudes, media literacy, and critical thinking dispositions of university students. Therefore, this study was conducted to determine the effects of a gender course on the gender attitudes, critical thinking dispositions, and media literacy skills of university students. The study results would be of help to educators intending to include a gender course to the undergraduate student curriculum.

Objectives of the Study

The study's hypotheses were:

- **H1:** There are differences between the levels of gender attitude of the university students taking and not taking the gender course.
- **H2:** There are differences between the levels of critical thinking dispositions of the university students taking and not taking the gender course.
- **H3:** There are differences between the levels of media literacy skills of the university students taking and not taking the gender course.

Method

Participants

This quasi-experimental design (pretest/posttest control group) study was conducted with 144 students taking and not taking the gender course in a university in the fall semester of the 2016–2017 academic year. The study group consisted of 74 students who were taking the gender course, took no course or education on gender before, and agreed to participate in the study. The control group of the study, on the other hand, included 70 students who were studying in the same department and class as the students in the study group, took no course or education on gender before, and agreed to participate in the study.

Procedure

At the beginning of the course, the Student Information Form, the Gender Roles Attitude Scale, the Critical Thinking Disposition Scale, and the Media Literacy Scale were administered to the students in both the control and the study group. The course, which employed interactive teaching methods, was conducted for 2 h a week for 14 weeks with 74 students in the study group (■ Table 1). The course included topics from general to specific and from simple to complex. Theoretical information was presented to the students by analyzing real cases related to the topics (violence, media contents, etc.), and the students were asked to analyze each case in terms of gender. Within the scope of the course, the students watched the following movies: "The Baggy Trousers Case" (original name in Turkish: "Şalvar Davası"), which deals with gender roles and family planning services; "The Accused," which is on gender roles and violence; and "My Aunt Has Arrived" (original name in Turkish: "Halam Geldi"), which is on the effects of gender roles on individuals during the childhood and adolescence period. After watching each of the movies, the lecturers analyzed the events and the characters of the movies with the students in terms of gender roles. At the beginning of the course,

students chose a topic they wanted to work on and created their study group. These topics included advertisements, anecdotes, stories, poems, plays, songs, books, proverbs/bywords, and materials in written and visual media. Within the scope of this study, they were divided into 10 groups of 7–8 students, and each group was guided by an instructor for analyzing the materials during the semester. All of the groups presented a 20-minute presentation in the class on the materials they analyzed. The students prepared different materials, depending on their topic. They led their presentations and kept their classmates engaged during their presentation. The following five questions were asked during the movie analyses and in-class group presentations to raise awareness of the students on the subjects of gender roles, media literacy, and critical thinking (Jolls & Thoman, 2008):

- Who created the message?
- Which techniques were used while creating this message?
- How might other people understand this message differently from what I understood?
- Which of the messages regarding lifestyles, values, and opinions were ignored?
- Why was this message conveyed?

Different educational methods were used to develop the students' media literacy and critical thinking skills. A two-hour lesson was devoted to the impact of media on gender. In this lesson, many events in the media were discussed with the students in terms of gender. Throughout the semester, their opinions on the topic they chose were discussed using interactive methods. Students were encouraged to interact with each other. They were also asked to analyze the topics they selected through group work, thus enabling the development of critical thinking skills.

Upon the completion of the course, the Gender Roles Attitude Scale, the Critical Thinking Disposition Scale, and the Media Literacy Scale were again administered to the study and control group. The Course Satisfaction Assessment Form was administered to the study group a week after the completion of the course. The flowchart of the research is shown in ▮▮ Figure 1.

Data Collection Instruments

The data of the study were collected by using the Student Information Form, the Gender Roles Attitude Scale, the Critical Thinking Disposition Scale, the Media Literacy Scale, and the Course Satisfaction Assessment Form. To assess the comprehensibility and usability of the Student Information Form and the Course Satisfaction Assessment Form, a pilot test was carried out with 60 students taking the gender course

▮▮ **Table 1.** Gender course program.

Weeks*	Subject headings
1.	Presentation of the curriculum, giving information about research, application of pre-test data collection tools
2.	Concepts of gender
3.	Factors affecting gender
4.	Effect of gender on health
5.	Effect of written and visual media on the concept of gender
6.	Gender and family planning services Film analysis: The Baggy Trousers Case (Original name in Turkish: "Şalvar Davası")
7.	Gender and violence Film analysis: The Accused
8.	Interventions to increase awareness of gender equality
9.	Gender and childhood and the adolescence period Film analysis: My Aunt Has Arrived (Original name in Turkish: "Halam Geldi")
10.	Preparation for group presentations
11.	Group presentations
12.	Group presentations
13.	Assessment of the course and application of end-test data collection tools

*One week is the midterm exam week.

in the spring semester of the 2015–2016 academic year. No change was made in the form after the pilot test.

The Student Information Form prepared by the researchers consisted of 33 questions in open-ended and multiple-choice formats to determine the socio-demographic characteristics of the students. The Course Satisfaction Assessment Form prepared by the researchers for assessing the course satisfaction of the students consisted of 25 items, which are evaluated based on a three-point Likert scale rated as "I agree," "I am neutral," and "I disagree."

The Gender Roles Attitude Scale developed by Zeyneloğlu and Terzioğlu (2011) is a five-point Likert-type scale that consists of 38 items. There are five subscales (egalitarian gender roles, female gender roles, marriage gender roles, traditional gender roles, and male gender roles) in the scale. While the highest score to be obtained from the scale is 190, the lowest is 38. The highest value of the scale signifies egalitarian gender roles, whereas the lowest value signifies traditional attitude. Cronbach's alpha value of the scale is determined as 0.92 (Zeyneloğlu & Terzioğlu, 2014). In the present study, the pretest and the posttest Cronbach's alpha values were found to be 0.56 and 0.68, respectively, for the study group. On the other hand, the pretest and the posttest Cronbach's alpha values were determined to be 0.60 and 0.61, respectively, for the control group.
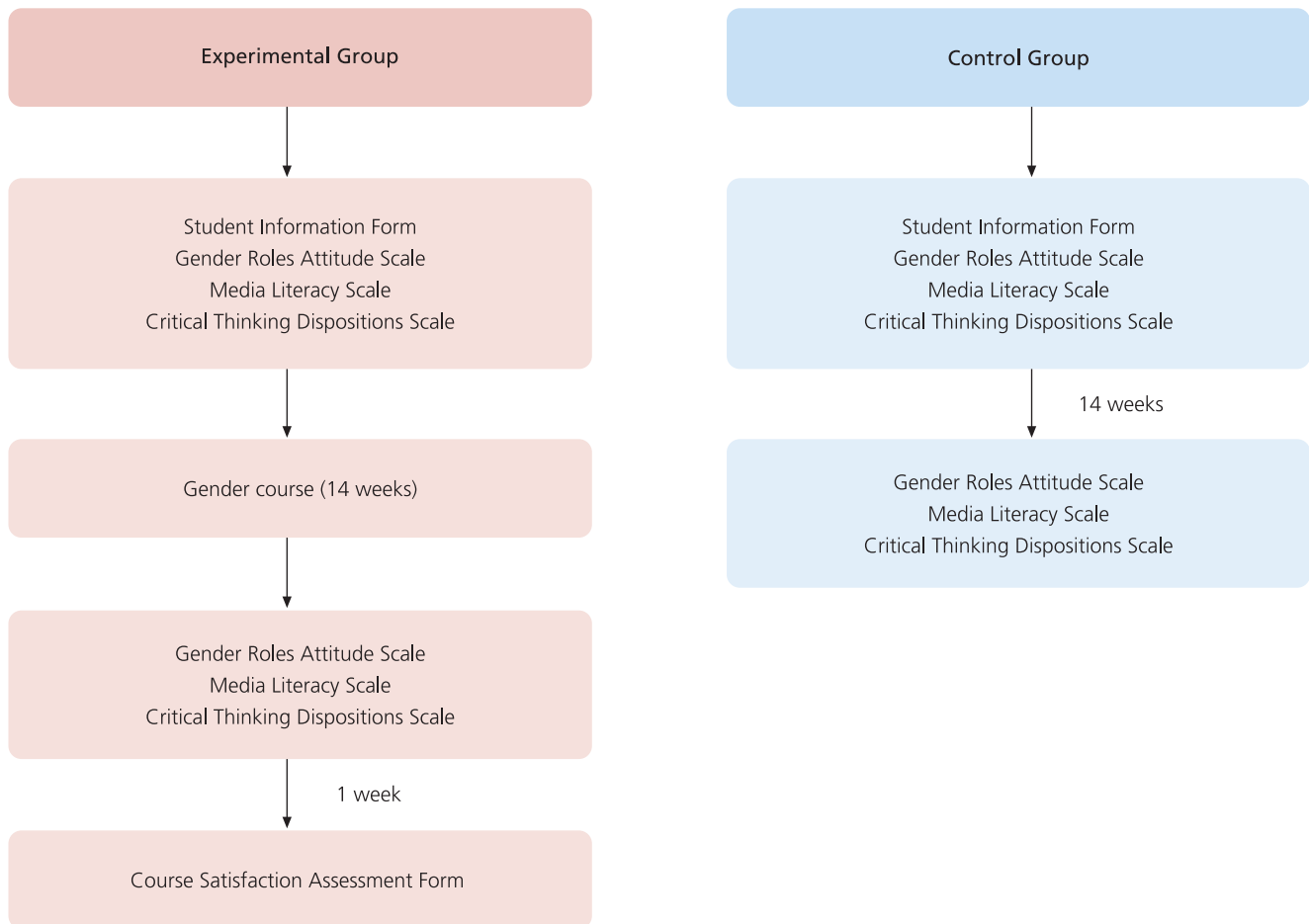
Figure 1. Flowchart of the research.

The Media Literacy Scale developed by Tüzel (2012) is a five-point Likert-type scale with 31 items. The scale includes three subscales: trust, literacy, and dependence. The scale is assessed based on the total and subscale mean scores of the scale. Higher mean scores signify higher levels of media literacy. Cronbach's alpha value of the scale was determined to be 0.81 (Tüzel, 2012). In the present study, it was found that while the pretest Cronbach's alpha value was 0.69 and the posttest Cronbach's alpha value was 0.74 for the study group, the pretest Cronbach's alpha value was 0.71 and the posttest Cronbach's alpha value was 0.73 for the control group.

The Critical Thinking Disposition Scale developed by Ankaralıgil (2009) is a five-point Likert-type scale consisting of 25 items. The scale is analyzed under five subscales, which are researching, self-confidence, flexibility in thought, literacy, and rational thinking. The scale is assessed based on the total and subscale mean scores of the scale. Higher mean scores signify a higher critical thinking disposition. Cronbach's alpha value of the scale was determined to be 0.86 (Ankaralıgil, 2009). In the current study, it was found that the pretest Cronbach's alpha value was 0.51 and the posttest Cronbach's alpha value was 0.75 for the study group; on the other hand, the pretest Cronbach's alpha value was 0.64, and the posttest Cronbach's alpha value was 0.77 for the control group.

Data Analysis

The data of the study were analyzed by using the Statistical Package for the Social Sciences (SPSS) for Windows Version 23 program. The normal distribution of the data was assessed by employing the Kolmogorov-Smirnov test. In the analysis of the descriptive data, number, percentage, mean, and standard deviation were used. In determining the difference between the

groups, independent samples t-test (t) and Kruskal-Wallis (KW) test were used. Dependent and independent samples t-test was used to determine the difference between the scale mean scores of the students in the study and the control groups. The statistical significance level was accepted as $p<0.05$.

Ethical Considerations

The Non-Invasive Clinical Trials Ethics Committee of the university decided that the study did not need ethical approval (Issue: 16969557-615, Date: June 14, 2016). Besides, permission was obtained from the institution where the study was conducted (Issue: 51986023-560, Date: April 21, 2016). All students participating in the study were informed about the study, and their written consent was taken.

Results

74 students were included in the study group and 70 were in the control group. However, one of the students in the study group did not complete the assessment of the data collection tools in the pretest evaluation and thus was excluded from the sample.

■■ Table 1 shows the one-term program of the gender course. The issues in the gender course program according to the weeks and the roles of the students and the lecturers are detailed in ■■ Table 2. Lecturers have roles such as informing, asking questions, stimulating student learning with different activities, and encouraging students to think about gender awareness. Students were responsible for following, listening to, and participating in the lesson and actively taking part in all the activities (■■ Table 2).

No difference was found between the groups in terms of the mean age, sex, year at the university, the department where they studied, the longest place of residence, type of family, educational level of the mother and the father, and the employment status of the mother and the father ($p>0.05$) (■■ Table 3). It was determined that the difference between the groups in terms of the frequency and time of the use of the media tools (television, newspapers, magazines, and the internet) by the students was insignificant ($p>0.05$) (■■ Table 4).

It was determined that while the GRAS pretest total mean score of the students taking the course was 98.90±12.18, their GRAS posttest total mean score was 104.42±11.28, and this increase was statistically significant ($p<0.05$). It was also determined that while the GRAS pretest total mean score of the students not taking the course was 101.61±11.93, their GRAS posttest total mean score was 96.00±9.68, and this decrease was statistically significant ($p<0.05$). Comparing the GRAS pretest total mean scores of the students taking and not taking the course, the mean score of both the groups was found to be similar; however, the difference between the posttest total mean

scores was significant ($p<0.05$). Nevertheless, CTDS and MLS total mean scores were similar in the pretest and posttest assessments within both the groups and between the groups ($p>0.05$) (■■ Table 5).

As for the course satisfaction of the students taking the course, 89.2% of the students stated that they benefited from the theoretical lessons in the curriculum, and 72.3% stated that they benefited from the practical lessons. 80% of the students reported that active participation was encouraged during the course, 84.6% stated that communication between the students and the lecturer was effective, and 80% reported that the assignments given during the course contributed to their learning (■■ Table 6). Seven students sharing their opinions and suggestions on the course in writing stated that they benefited from the course, and they would recommend the course to their friends. Two students stated that they found the group work with students from different departments difficult.

Discussion

The most important resource in the socialization process is the family, and gender roles begin to take shape from childhood in a family environment. As children grow up, they are influenced by the media, television programs, and books as well as direct communication with the people around them; they also acquire the views and stereotypes of the environment in which they live (Seven, 2019). Also, starting from the preschool period, teachers become instrumental in the formation of gender stereotypes. Stereotypes affect the cognitive, behavioral, and emotional responses of individuals to a person, event, or situation (Ünal, Tarhan, & Çürükvelioğlu Köksal, 2017). Although the education provided in the primary and secondary educational institutions plays a significant role in achieving the goal of egalitarian gender roles, the course books, educational materials, in-class activities, and the curriculum remain incapable of providing gender equality (Ersoz, 2012). Additionally, university life corresponds to a period in which individuals accomplish the search for their identity. In this period, the gender stereotypes held by individuals play a major role in shaping their subsequent life. Therefore, the university period, during which individuals are capable of making their own decisions, plays an important role in developing attitudes toward gender equality (Bakioglu, 2019).

It is important to provide training on gender to raise awareness of the issue of gender equality and to develop egalitarian gender roles (Aksan, Ergin, Hassoy, Durusoy, & Ciçeklioglu, 2011; Erden, 2009; Uzun, Erdem, Güç, Uzun, & Erdem, 2017). In the present study, the scale mean scores of the students taking the gender course increased at the end of the course. While the pretest mean scores of the students taking the course and not taking the course were similar, there were

Table 2. Gender course program.

Weeks*	Subject headings	Lecturer's roles	Student's roles
1.	Presentation of the curriculum	• Presenting the curriculum, giving information about the course and research	• Listening to the lecture and following the presentation • Asking and answering questions
2.	Concepts of gender	• This phase is intended to enhance the awareness of the concepts of gender and gender roles, gender equality, and equity of students. • Students were asked to share examples of the gender they encountered in daily life. • Interactive training methods were used (brainstorming, discussion,expression). • Video and PowerPoint presentations were used as tools.	• Brainstorming and sharing their thoughts on gender in an interactive environment Listening to the lecture and follow-ing the presentation
3.	Factors affecting gender	• Grouping the class and giving each group a factor card affecting gender, asking them to write their thoughts • Reading the cards • Engaging and elaborating on the topic with examples and initiating a discussion about the factors affecting gender with a presentation	• Following the lecturer's directions and sharing their thoughts
4.	Effect of gender on health	• Demonstration • Brainstorming • Expression • Discussing the effect of gender on health with statistics • Asking and answering questions	• Listening to the lecture and following the presentation • Brainstorming and sharing their thoughts on the effect of gender on health in an interactive environment • Asking and answering questions
5.	Effect of written and visual media on the concept of gender	• Demonstration • Expression • Watching sample videos • Discussing the influence of media on gender • Brainstorming • Asking and answering questions	• Listening to the lecture and following the presentation • Brainstorming and sharing their thoughts about the influence of the media on gender in an interactive environment • Asking and answering questions
6.	Gender and family planning services Film analysis: "The Baggy Trousers Case" (Original name in Turkish: "Şalvar Davası")	• Asking questions about gender roles and the behavior of the characters in the movie • Discussing the impact of gender on the use of family planning methods	• Watching the film carefully and examining the scenes in the film in terms of the effect of gender roles and gender on the use of family planning method • To answer the questions asked by the lecturers • To be able to identify examples of the effect of gender roles and gender on the use of family planning method in the film
7.	Gender and violence Film analysis: "The Accused"	• To ask questions about how the students evaluated the incident of the main character in terms of gender • To discuss and interpret with the class the scenes that attract the students' attention in terms of gender roles in the film	• Watching the movie carefully and analyzing the scenes in the film in terms of gender and violence • To answer the questions asked by the lecturers
8.	Interventions to increase awareness of gender equality	• Demonstration • Expression • Discussing interventions to increase awareness of gender equality • Brainstorming • Asking and answering questions	• Listening to the lecture and following the presentation • Brainstorming and sharing their thoughts • Discussing interventions to increase awareness of gender equality in an interactive environment • Asking and answering questions
9.	Gender and childhood and the adolescence period Film analysis: "My Aunt Has Arrived" (Original name in Turkish: "Halam Geldi")	• To ask questions about gender roles and the behavior of the characters in the film • To discuss and interpret with the class the scenes that attract the students' attention in terms of gender roles and parental behavior in the film	• Watching the movie carefully and analyzing the scenes in the film in the context of gender, childhood, parental behavior, society's reaction, and violence • To answer the questions asked by the lecturers
10.	Preparation for group presentations	• To inform the students about how to hold group discussions, that they should choose their interests on the condition that there are 7-8 students in each group, they will have an advisor for each group, and they will present the group discussions in the last two weeks of the lesson. • To decide whether the data the student finds are consistent with the gender perspective in their group topic • To help make presentations	• To begin preparations for group discussion on their topic of interest • To collect data (videos, pictures, news, reading a book, watching advertisements, etc.) on their topic • To evaluate the situations and events gathered from the data from a gender perspective • To organize the presentation in line with the recommenda-tions received from their lecturers
11–12.	Group presentations	• This phase is intended to enhance the students' awareness and pre-existing ideas of the "gender" concept. • Encouraging students to present their presentation in line with their group topic • Supporting students in integrating the information they have acquired into their daily lives • Supporting the summarization and presentation of the available data • Evaluating the presentation in line with the students' group topic. • Asking the selected five questions to the students during the movie analysis to raise awareness of gender equality	• To begin preparations for group discussion on their topic of interest • To evaluate and engage with the situations and events encountered from a gender perspective • To evaluate the presentation in line with their group topic • To answer the five questions asked by the lecturers during the movie analysis
13.	Assessment of the course and application of end-test data collection tools	• Asking them to evaluate the course and making suggestions to increase the efficiency of the course • Giving posttest forms and collecting posttest data	• Sharing their thoughts about the course and making sug-gestions to increase the efficiency of the course • Filling out the posttest forms

*One week is the midterm exam week.

■ Table 3. Characteristics of students.

	Study group (*n*=73)		Control group (*n*=70)		Statistical analysis	*p*
	S	%	S	%		
Age	$\overline{x}\pm SS$= 20.58±1.17		$\overline{x}\pm SS$=20.64±1.53		-0.236*	0.814
Gender						
Female	66	90.4	63	90.0	-0.082*	0.935
Male	7	9.6	7	10.0		
Year at university						
1st year	2	2.7	1	1.4		
2nd year	35	48.0	32	45.7	-0.323**	0.747
3rd year	26	35.6	28	40.0		
4th year	10	13.7	9	12.9		
Department						
Nursing	25	34.1	24	34.3		
Child Development	31	42.5	30	42.9		
Nutrition and Dietetics	7	9.6	7	10.0		
Physiotherapy	4	5.5	4	5.7	0.003**	0.959
Audiology	1	1.4	1	1.4		
psychology	1	1.4	-	-		
Radiotherapy	1	1.4	1	1.4		
Psychological Guidance and Counseling	3	4.1	3	4.3		
The residence place for the longest period						
Province	38	52.1	38	54.2		
County	18	24.7	20	28.6	0.220**	0.639
Village	15	20.5	9	12.9		
No answer	2	2.7	3	4.3		
Type of family						
Nuclear family	63	86.3	62	88.6		
Extended family	6	8.2	5	7.1	0.160**	0.689
Fragmented Family	4	5.5	3	4.3		
Educational level of the mother						
Not literate	4	5.4	4	5.7		
Literate	1	1.4	1	1.4		
Primary school	32	43.8	24	34.3		
Secondary school	8	11.0	16	22.9	0.012**	0.911
High school	14	19.2	21	30.0		
University	14	19.2	4	5.7		
Educational level of the father						
Literate	2	2.7	-	-		
Primary school	25	34.2	14	20.0		
Secondary school	9	12.3	17	24.2	0.959**	0.328
High school	18	24.7	23	32.9		
University	19	26.1	16	22.9		
The employment status of the mother						
Yes	15	20.5	12	17.2	-0.517*	0.606
No	58	79.5	58	82.8		
The employment status of the father						
Yes	63	86.3	58	82.9	-0.139*	0.890
No	10	13.7	12	17.1		

*Student's t-test was used. **Kruskal-Wallis test was used.

differences between their posttest mean scores (*p*<0.05). This suggested that, at the end of the course, students taking the gender course had more egalitarian gender role attitudes, and students not taking the course had more traditional gender role attitudes. This result showed that the gender course was effective in developing a more egalitarian attitude among the students. During the course, the theoretical framework about gender was established by analyzing real situations related to

Table 4. Statements of the students using media tools.

	Study group		Control group		Statistical analysis	p
	n	%	n	%		
Time of watching TV (hours/day)*						
Less than 1 hour	31	54.4	28	56.0		
1–2 hours	22	38.6	21	42.0	0.148	0.700
More than 2 hours	4	7.0	1	2.0		
Total	57	100.0	50	100.0		
Frequency of reading newspaper*						
Everyday	17	44.7	8	26.8		
1–2 times a week	15	39.5	17	56.6	1.451	0.228
Once in a month	6	15.8	5	16.6		
Total	38	100.0	30	100.0		
Frequency of reading magazines*						
At least one week	8	26.7	8	27.6		
Once in a month	12	40.0	11	37.9	1.812	0.178
Rarely	10	33.3	10	34.5		
Total	30	100.0	29	100.0		
Time of using internet (hours/day)*						
Less than 1 hour	5	6.8	3	4.3		
1–2 hours	20	27.4	21	30.0		
3–4 hours	32	43.9	29	41.4	0.016	0.898
More than 4 hours	16	21.9	17	24.3		
Total	73	100	70	100		

*The numbers and percentages are calculated over the answer is yes.

the subject. Also, the students were asked to analyze each case (violence, media contents, and some movies) in terms of gender. Thus, the students identified and analyzed gender inequalities in each case. These case analyses within the scope of the course increased the students' understanding of gender roles and proved to be effective in the development of more egalitarian gender role attitudes. In a study, Egelioğlu Cetişli and others (2017) stated that the lecture on gender equality affected the gender role attitude of students, and after the lecture, students had more egalitarian attitudes toward gender roles (Egelioğlu Cetişli et al., 2017). Similarly, some researchers stated that the gender equality course given to different student groups had positive effects on their gender role attitudes (Aksan et al., 2011; Bakioglu, 2019; Erden, 2009).

Cultivating an egalitarian gender attitude helps individuals to develop critical thinking, such as the ability to interpret events and incidents, analyze and evaluate gender stereotypes, and make inferences (Bullen, 2007; Mastrian & McGonigle, 1999; Şenşekerci & Bilgin, 2008). In the present study, it was determined that the gender course did not have an impact on the critical thinking dispositions of the students. This may have been because the components required for developing critical thinking were not addressed in the syllabus of the course. This may have also been due to individual differences of the stu-

dents, such as determination, motivation, curiosity, having the habit of reading, and the ability to research. Critical thinking involves different components such as curiosity, open-mindedness, intellectual maturity, self-confidence, seeking the truth, and being systematic and analytical. In acquiring critical thinking, planning should be performed individually for each of these components (Carter, Creedy, & Sidebotham, 2018). In this study, the students were given some cases to review, and they were asked to analyze them from a gender perspective. They also watched some movies and analyzed them together with the lecturers in a classroom environment. Afterward, the students were asked to choose a material and present their analysis as a group. All the students were encouraged to actively participate in both classroom activities and group presentations. However, in group presentations, especially, some students took an active role in the analysis, while some remained more passive, which may have been caused by individual differences. Therefore, it can be assumed that the level of benefit from the course is also different for each student. Several studies revealed that individual differences, the educational methods used, variables motivating the students, and the culture of learning had an impact on the acquisition of critical thinking (Hammer & Green, 2011; Howard, Tang, & Jill Austin, 2015; Rodriguez, 2009).

Table 5. Comparison of students' gender roles attitude, media literacy and critical thinking disposition levels according to the measurements between the study and control groups.

Scales/Sub-scales	Study group		In-group statistical analysis		Control group		In-group statistical analysis		Inter-group statistical analysis	
	Pre-test x̄±ss (n=73)	Post-test x̄±ss (n=73)	t	p	Pre-test x̄±ss (n=70)	Post-test x̄±ss (n=70)	t	p	t	p
Gender roles attitude scale										
Egalitarian gender roles	37.76±6.83	34.38±5.12	3.475	**0.001**	36.11±6.93	36.42±4.65	-0.319	0.751	1.459* -2.494**	0.147* **0.014****
Female gender role	23.31±3.43	23.47±3.47	-0,288	0.074	23.51±3.83	22.31±2.95	2.177	**0.033**	-0.192* 2.155**	0.848* **0.033****
Marriage gender roles	13.09±2.75	15.50±4.76	-3,609	**0.001**	13.73±3.29	13.22±3.28	0.886	0.379	-1.260* 3.319**	0.210* **0.001****
Traditional gender roles	15.05±5.41	18.68±5.20	-3.985	**0.001**	17.29±4.94	14.47±5.34	3.220	0.002	-2.604* 4.774**	**0.010*** **0.001****
Male gender roles	9.67±3.32	12.36±4.03	-4.557	**0.001**	10.97±4.00	9.55±3.81	2.268	0.026	-2.100* 4.278**	**0.037*** **0.001****
Total	98.90±12.18	104.42±11.28	-2.771	**0.007**	101.61±11.93	96.00±9.68	3.259	0.002	-1.336* 4.783**	0.184* **0.001****
Critical thinking disposition scale										
Researching	20.10±2.17	20.00±2.61	0.253	0.801	20.85±4.41	20.58±2.83	0.456	0.650	-1.348* -1.444**	0.180* 0.151**
Self-confidence	21.47±2.35	20.87±2.91	1.301	0.197	21.90±5.59	21.77±2.68	0.177	0.860	-0.526* -2.010**	0.600* **0.046****
Flexibility in thought	21.89±2.35	18.13±2.21	9.611	**0.001**	22.18± 2.72	22.30±2.52	-0.248	0.805	-0.664* -0.504**	0.508* 0.615**
Literacy	10.00±1.47	10.04±1.76	-0.164	0.870	10.10±1.42	9.94±1.53	0.615	0.541	-0.471* 0.250**	0.639* 0.803**
Rational thinking	12.28±5.09	11.10±2.00	1.750	0.084	11.52±1.86	11.88±1.70	-1.217	0.228	1.196* -2.630**	0.234* **0.009****
Total	85.76±8.86	84.16±8.83	1.051	0.297	86.57±12.16	86.48±8.94	0.051	0.960	-0.439* -1.757**	0.660* 0.081**
Media literacy scale										
Trust	32.68±8.07	31.90±6.89	0.622	0.536	32.48±7.63	31.32±6.13	1.010	0.316	0.145* 0.514**	0.885* 0.608**
Literacy	26.08±4.35	24.28±5.26	2.125	**0.037**	24.48±6.98	26.87±4.58	-2.584	**0.012**	1.686* -3.246**	0.094* **0.001****
Dependence	29.19±8.76	29.93±9.29	-0.463	0.645	31.72±9.28	29.00±9.80	1.789	0.078	-1.776* 0.698**	0.078* 0.486**
Total	87.95±13.41	86.12±12.05	0.832	0.408	88.70±14.22	87.20±11.77	0.735	0.465	-0.375* -0.397**	0.708* 0.692**

*Difference between pre-test score averages of students in experiment and control group. **Difference between post-test score averages of students in experiment and control group.

The media plays an important function in developing egalitarian gender roles and also in reinforcing gender stereotypes within the society as it is capable of reaching a large mass of people (Lourenço, 2016; Puchner et al., 2015). Media literacy helps in acquiring the skills for making good use of the media and correctly interpreting messages conveyed by it (Puchner et al., 2015; Sarsar & Engin, 2015). Media literacy provides the ability to control the media by employing a critical thinking perspective as well as protection from its harmful effects (Puchner et al., 2015; Scharrer & Ramasubramanian, 2015). In the present study, it was found that all the students used digital media tools (the internet) more than traditional media tools (television, newspapers, and magazines). The content in the internet environment is more abundant compared with the content in traditional media. However, since information in an online environment is not inspected by experts, the value, reliability, neutrality, and currency of information are more likely to be wrong and incomplete. This can adversely affect the research and interpretation strategies for information adopted by students (Geçer, 2014). Therefore, individuals and students must work toward developing their media literacy skills. Media literacy education, which is prepared for the development of these skills, should start from an early age. Just like reading and writing skills, it should be a continuous and gradual process and

Table 6. Statements of the students taking the course of gender for the course satisfaction.

Statements	Agree		Neutral		Disagree	
	n	%	n	%	n	%
Goals of the course were announced to us at the beginning of the semester.	61	93.8	3	4.6	1	1.5
The curriculum was updated in such a way to follow the latest developments in the field.	59	90.8	4	6.2	2	3.1
The course prepared us for working life.	44	67.7	19	29.2	2	3.1
Educational tools were effectively used in the courses.	55	84.6	8	12.3	2	3.1
I benefitted from the theoretical lessons in the curriculum.	58	89.2	6	9.2	1	1.5
I benefitted from the applied lessons in the curriculum.	47	72.3	13	20.0	1	1.5
The curriculums including the courses' goals were provided to us at the beginning of the semester.	59	0.8	5	7.7	1	1.5
The main and supplementary sources concerning the course were suggested to us at the beginning of the semester.	34	52.3	24	6.9	7	0.8
Students were encouraged to use the supplementary sources.	31	47.7	23	5.4	11	16.9
Active participation of the students in the courses was provided.	52	80.0	8	12.3	5	7.7
The communication between the students and the lecturer was effective.	55	84.6	7	10.8	3	4.6
The lecturers effectively used their course hours.	56	86.2	3	4.6	6	9.2
The lecturers were accessible outside the class hours.	53	81.5	10	15.4	2	3.1
Assignments given in the courses contributed to our learning.	52	80.0	8	2.3	5	7.7
The lecturers acted unbiased in measurement and assessment.	60	92.3	2	3.1	3	4.6
The lecturers explained to the students how the course success shall be measured in detail at the beginning of the semester.	50	6.9	8	12.3	7	10.8
The lecturers provided feedback to the students on their exam results following their exams.	32	49.2	22	3.8	11	16.9
The courses was not only assessed through exams, but also through other activities such as assignments and projects.	62	95.4	0	0	3	4.6
My advisor spared the necessary time for me.	58	89.2	4	6.2	3	4.6
I was able to see my advisor in the designated consultancy hours.	58	89.2	5	7.7	2	3.1
I was able to meet the lecturers of the courses during their office hours.	52	80.0	9	13.8	4	6.2
The lecturers were sensitive to the problems and suggestions of the students.	51	78.5	11	16.9	3	4.6
The students were allowed to participate in the decisions.	53	81.5	10	15.4	2	3.1
The attitudes and behaviours of the lecturers toward the students were positive.	55	84.6	7	10.8	3	4.6
The technological facilities such as computer provided to the students were sufficient.	47	72.3	13	20.0	5	7.7

should continue at a higher level (Mohebzadeh, Emamjomeh, Assareh, & Hamidi, 2020). In our study, the theoretical lesson on "The Effect of Written and Visual Media on the Concept of Gender" was taught only for two hours in the course. Also, the messages intended to be conveyed both through traditional and digital media tools were discussed in terms of gender equality perspective in the movie analyses and group presentations within the curriculum. However, it was found that the course had no effect on the development of the media literacy skills of the students. Media literacy skill requires the use of critical thinking, as well. In the present study, it was established that the course did not have any effect on the critical thinking dispositions of the students, and therefore, the media literacy skill of the students could not be developed. Moreover, the concept of gender was mostly focused on the subjects within the curriculum. It is, therefore, recommended to provide different courses for developing media literacy skills and critical thinking dispositions.

In this study, the students' satisfaction with the course was also evaluated. Most of the students stated that the course was beneficial, active participation was provided during the course, the communication between the students and the lecturer was effective, and the assignments given during the course contributed to their learning. In similar studies, no evaluation of the students' satisfaction was found (Bakioglu, 2019; Egelioğlu Cetişli et al., 2017). Evaluation of the students' satisfaction is important in terms of improving the course and determining the needs of the students and the deficiencies of the course.

While most of the studies in the relevant literature evaluated the effect of a gender course or training program on gender

attitudes, the present study assessed media literacy and critical thinking along with gender attitude. Other strong points are that the study design is a quasi-experimental design with pretest and posttest control groups, and the sample of the study is composed of individuals enrolled in different bachelor programs.

However, the study has a few limitations. The number of students taking the course is limited since the course was conducted by using interactive educational methods. For this reason, the study was carried out with a small sample. In the selection of the sample, the criterion of not having participated in any course or training on gender before was taken into consideration. However, whether students got any information on gender in their professional education or social lives during the semester in posttest evaluation was not questioned. Furthermore, only a quantitative research design was used in this study. Mixed research methods (qualitative and quantitative) can also be used to determine the effect of a gender course on the gender attitudes, critical thinking dispositions, and media literacy skills of university students. Individual interviews with students can be useful in explaining other dimensions of the problem, supporting quantitative findings. Finally, giving the Critical Thinking Disposition Scale and the Media Literacy Scale to university students for the first time can be considered as the most important limitation of this study.

Conclusion and Recommendations

It was found that the course on gender was effective in the development of egalitarian gender roles among the students. However, it was determined that the course did not have any positive effect on the development of the critical thinking and media literacy skills of the students. Thus, it is recommended to provide courses addressing the components separately, which are effective in developing the critical thinking disposition and media literacy skills of the students; or restructure this course in such a way as to ensure the development of these three variables. It is also recommended that interactive educational techniques should be used in the theoretical part of the course, and media tools (film, advertisement, song, fairy tale, etc.) should be analyzed in terms of gender by employing a critical thinking perspective. This will help the students gain awareness and develop an understanding of the possible consequences of egalitarian or traditional gender roles and the positive effects of egalitarian roles.

Positive feedback were received from the students regarding the gender course. An education program that employs interactive teaching methods to improve the knowledge and awareness levels of young people on gender equality can be implemented. It is further recommended to organize social activities on these issues at regular intervals to maintain and improve awareness of gender equality. It may also be helpful to use the content of the gender course developed in this study in other undergraduate programs.

Since studies in the relevant literature mostly evaluate the gender attitudes of the students immediately after the course or training program, the changes in the students' attitudes can be determined by reevaluating the effect of the course or training program in the long term. It is also recommended to conduct future studies with a larger sample by using the design of a randomized controlled trial.

Along with the "Gender Equality Attitude Document" issued by the Turkish Council of Higher Education (CoHE), courses on gender equality with different contents have been introduced in various departments and faculties of many universities. While this is a good opportunity for university students to develop egalitarian gender roles, the need for standardizing the contents of the courses and providing these courses by specialists has emerged. Accordingly, new studies can be performed to improve the program by conducting interviews on students' perceptions and views on gender equality before and after the implementation of the gender education course. The gender course program prepared for university students can also be developed for different educational levels, such as preschool, primary education, secondary education, postgraduate, and adult education. Additionally, web-based courses may also increase the number of students benefiting from gender education and thus contribute to raising awareness on gender equality.

Various seminars and events can be organized at universities to raise awareness about gender equality and media literacy. Student societies or clubs, such as a gender awareness club or a media literacy club, can be established. Furthermore, offering educational programs, events, and various projects on gender equality and media literacy in the continuing education centers of universities is highly recommended.

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