

Original Article

Changes in Attitudes towards Gender Perceptions, Equality, and Roles Following a Course on Gender: A Quasi-Experimental Study of Nursing Students

Gamze Yavas, PhD

Associate Professor Akdeniz University Kumluca Faculty of Health Sciences, Department of Obstetrics and Gynecology Nursing, Antalya, Turkey

Adem Sumen, PhD, RN

Lecturer, Akdeniz University Kumluca Faculty of Health Sciences, Department of Public Health Nursing, Antalya, Turkey

Selma Oncel, PhD, RN

Professor, Akdeniz University Nursing Faculty, Department of Public Health Nursing, Antalya, Turkey

Correspondence: Associate Professor Gamze Yavas, Akdeniz University Kumluca Faculty of Health Sciences, Department of Obstetrics and Gynecology Nursing, Antalya, Türkiye e-mail: gteskereci@akdeniz.edu.tr

Abstract

Background: Nursing students' egalitarian attitudes towards gender roles will contribute to the egalitarian perspective of the individuals they serve, as well as increase the consciousness and awareness of the society.

Objectives: This study compares the effects of two courses (Gender course and Health Assessment course) on nursing students' perceptions, equality, and roles of gender.

Design: A quasi-experimental design (two group and pretest-posttest).

Setting: A nursing school in Turkey.

Participants: A total of 38 students enrolled in the Gender course participated in the intervention group and 37 students enrolled in the Health Assessment course participated in the control group.

Methods: The control group received a Health Assessment course, while the intervention group received a Gender course and students' gender perceptions, equality, and roles, were measured upon completion. Data analysis used descriptive statistics, Mann Whitney U test and Wilcoxon Signed-Rank test.

Results: The mean scores for all of the variables were improved in the intervention group and a significant effect was found for changes over time between the two groups ($p < 0.05$).

Conclusion: The gender course be included in the curriculum of the nursing department, and students' awareness of gender perception, roles, and equality should be raised.

Keywords: Gender; gender perception; gender equality; gender role; nursing student

Introduction

While the concept of sex is used for the genetic, biological, and physiological characteristics of the individual as a woman or a man, the concept of gender is used for socially determined personality traits, and for socially structured roles, responsibilities, and behaviors for men and women (Lips, 2020; Stoller, 2020). The concept of gender equality means that women and men have equal

chances or opportunities to access and use social, economic, and political resources (such as health care, education, and voting rights) within the family, community, and society (WHO, 2010). Gender equality does not mean that men and women will be the same. It means that women's and men's rights, responsibilities, and opportunities do not depend on whether they are born male or female (UNICEF, 2017). According to the Gender Inequality Index, one of the most

important criteria used to measure gender inequality, i.e., inequality between women and men, is discussed in three dimensions: reproductive health, empowerment, and the labor market. The reproductive health dimension is measured by the maternal mortality rate and adolescent fertility rate, while the dimension of empowerment is measured by the proportion of seats each gender has in the parliament. The labor market dimension is measured by women's labor force participation (van Staveren, 2021). According to the Gender Inequality Index, Turkey ranks 54th among 189 countries (UNDP, 2020). This result shows us that disadvantaged women in Turkey should be supported among groups that require special policies. For women to benefit from equal rights and opportunities in all areas of social life and become stronger, policy measures that will encourage the active participation of women in economic, social, and cultural life and in decision-making mechanisms, starting from the local level, should be developed and implemented (Yigiteli & Sanli, 2020). Educational institutions, including university institutions, have important responsibilities in ensuring gender equality, preventing gender-based discrimination and stereotypes, and raising society's awareness of gender issues. Universities are key in raising students' awareness of gender equality by including gender studies in their curricula and encouraging students to research gender issues (Larrondo & Rivero, 2019). In the gender equality-sensitive university workshop held by the Council of Higher Education in Turkey in 2015, it was decided to include the "Gender Equality" course as a compulsory or elective course in universities or to organize a scientific activity on this subject every semester. However, when the curricula of universities providing education in the field of health in Turkey are examined, it is seen that gender-related courses are not included in the curriculum at the desired level. It was determined that only 56 faculties and departments out of 183 universities included courses such as "gender," "gender equality," "gender and health," and "gender awareness" (Avci et al., 2021). In the international literature, it is seen that studies focusing on gender courses are quite limited, and studies have been carried out on whether students can

gain a gender perspective by adding a gender course to the education curriculum of medical faculties (Clever et al., 2020; Liao & Wang, 2020; Thompson et al., 2020). This situation in the literature can be considered as an institutionalization rather than a lack, since gender debates are much older in these societies, and the subject is entrenched in education curricula (Gunes, 2020). In studies conducted with university students aiming to change their perception of gender positively, the importance of adding a "gender" course to the curriculum was stated (Gonenc et al., 2018; Koc et al., 2021; Yanikkerem et al., 2020). Although there are courses that address gender in the nursing curriculum in studies in the literature, there are only limited studies evaluating the effectiveness of these courses (Bahadir Yilmaz & Ekin, 2020; Egelioglu Cetisli et al., 2017; Gonenc et al. 2018).

Nursing students have special importance since they are future adults, and they create professional health power that can reach many disadvantaged groups. The fact that nursing students have egalitarian attitudes towards gender roles will contribute to the egalitarian perspective of the individuals they serve. Including gender-related topics in the nursing education curriculum may contribute to the professional development of students and the quality of health care they will provide in the future, as well as increase the consciousness and awareness of society (Karacay et al., 2020; Turan et al., 2017;). There is a need for academic studies to observe the quality and development of these activities as well as for gender studies courses and educational activities serving the purpose of establishing awareness and sensitivity regarding the concept of gender. In this context, it is important to determine the attitudes and perceptions of nursing students towards gender and to carry out interventional studies to develop an egalitarian attitude.

Purpose of the study

This study aimed to compare the attitudes of nursing students who took and did not take the gender studies course towards gender perceptions, equality, and roles.

Research Hypotheses

H₁: The gender perception levels of the students in the intervention group who took

the gender studies course are higher than those of the control group.

H₂: The gender equality levels of the students in the intervention group who took the gender studies course are higher than those of the control group.

H₃: The gender role attitude levels of the students in the intervention group who took the gender studies course are higher than those of the control group.

Materials and Methods

Design of the Study: This research was applied as a pretest-posttest, control group, quasi-experimental design. **Participants and procedure.** The population of the research consisted of 75 first-year students who took the Gender Studies and Health Assessment courses in the nursing department of a health sciences faculty in the spring semester of 2020-2021. These courses are carried out as elective courses in the faculty. Sample calculation was not made in the research, and all students who took these courses and volunteered to participate in the research formed the sample. Thirty-eight students enrolled in the Gender Studies course were included in the intervention group, and 37 students enrolled in the Health Assessment course were included in the control group. The power analysis of the research was done with the G*Power software package. The post hoc power of this study was found to vary between 0.97 and 1.00 at the 95% confidence interval, according to the scales used.

Data Collection: The data of the study were collected between March-June 2021 through an online data collection form. On the first day of the Gender and Health Assessment courses, the students were informed about the purpose, method, and how the research results would be used, that participation in the research was voluntary, and that they could withdraw from the research at any time. The data collection form was sent to the students who agreed to participate in the study via social media. Filling out the forms takes about 15-20 minutes. All participants were asked to write a code name in the form. The data collection form was sent to the students at the end of the spring semester and applied after the classes were over. They were asked to write the code name they used in the pre-test

and post-test, and it was ensured that the data belonged to the same person in the evaluation.

Data Collection Tools: A form consisting of four parts was used to collect the research data: Socio-demographic Information Form, Perception of Gender Scale, Gender Equality Scale, and Gender Role Attitudes Scale.

Socio-demographic Information Form: This consists of 10 questions asking about the students' age, gender, parents' educational status, family type, and gender-related education.

Perception of Gender Scale (PGS): Developed by Altinova and Duyan (2013), who also conducted its validity and reliability studies, the Perception of Gender Scale is a scale developed especially to be applied to adults, and it has the feature of measuring the attitudes of individuals about how they perceive their gender roles in different fields. The Cronbach alpha value of the scale was found to be 0.872. There are 25 items in total in this developed scale. Ten of the items are positively worded, while 15 of them are negatively worded. It is a five-point Likert-type scale. On the scale, the participants are asked to rate each item as "strongly agree" (5), "agree" (4), "undecided" (3), "disagree" (2), "completely disagree" (1). Accordingly, the scores obtained from the scale are in the range of 25-125, and high scores indicate a positive perception of gender (Altinova and Duyan, 2013). In this study, the Cronbach alpha value of the scale was found to be 0.818 in the pre-test and 0.912 in the post-test.

Gender Equality Scale (GES): This scale, developed by Gozutok et al. (2017), consists of 13 items. The scale is a five-point Likert-type scale. The choices are as follows: "strongly disagree," "disagree," "partially agree," "agree," and "strongly agree." The scale has two dimensions: The Understanding that Considers Males as Superior (UtCMS) and the Understanding that Subjects Females to Males (UtSFM). Items 1-6-7-9-10-11-12 and 13 in the scale refer to the understanding that considers males as superior, and Items 2-3-4-5 and 8 refer to the understanding that subjects females to males. The maximum score that can be obtained from the UtCMS sub-dimension is 40, and the minimum score is 8. Obtaining a high score in the UtCMS sub-dimension means acceptance of male superiority and male dominance over women.

The maximum score that can be obtained from the UtSFM sub-dimension is 25, and the minimum score is 5. Obtaining a high score in the UtSFM sub-dimension means acceptance of the dependence of the woman on the man in the family relationship and the opinion that the woman should act by obtaining permission from her husband. The Cronbach alpha value of the scale was determined as 0.89 (Gozutok et al., 2017). In this study, the Cronbach alpha value of the scale was found to be 0.906 in the pre-test and 0.967 in the post-test.

Gender Role Attitudes Scale (GRAS): The Turkish validity and reliability study of this scale developed by García-Cueto et al. (2015) was done by Bakioglu and Turkum (2019). There are 15 statements on the egalitarian attitude of individuals regarding gender roles on the scale. The scale has no sub-dimensions, and the scale is in the form of a 5-point Likert-type rating (1= "I totally disagree", 5= "I totally agree"). Increasing scores on the scale indicate that the individual exhibits an egalitarian attitude towards gender roles. The internal consistency coefficient of the scale was found to be 0.99 (Bakioglu and Turkum 2019). In this study, the Cronbach alpha value of the scale was found to be 0.908 in the pre-test and 0.985 in the post-test.

Gender Studies Course: Within the scope of the course, the basic concepts of gender, and the effects of gender on the individual and health are examined from a gender perspective. The main purpose of the course is to raise awareness of the health effects of gender-based discrimination, gender, and gender roles in nursing students. The course is given for two hours per week and lasts 14 weeks. The program content of the Gender Studies course is presented in Table 1. Techniques such as computer presentations, discussion (media news, advertisements, news about violence), question-answer, brainstorming, team/group work, reading books, and watching movies/short films were used in the course, which was prepared and conducted by the researcher considering the current literature.

Ethical considerations: Ethical approval for the study was obtained from the University Clinical Research Ethics Committee. After explaining the purpose of the study, the students were informed that participation in

the study was voluntary, their grades would not be affected if they did not participate, their personal information would be kept confidential, and they could withdraw from the study if they wished. On the first page of the data collection tool, this information about the study was given, and the students' consent was obtained.

Data analysis: Evaluation of the data was made by using the Statistical Program for Social Sciences (SPSS) 25.0 software package. The study data were evaluated with number, percentage, mean, and standard deviation for descriptive statistics. The normal distribution characteristics of the data were examined with the Kolmogorov-Smirnov test. Since the data did not show a normal distribution, the Mann-Whitney U test was used for intergroup comparison, and the Wilcoxon Signed-Rank test was used for intragroup comparison. The homogeneity of the groups was compared using chi-square analysis and Kruskal-Wallis analysis. The results were evaluated at the 95% confidence interval and the significance level of $p < 0.05$.

Results

Among the students participating in the study, 58.7% were female, and their average age was 19.60 ± 1.49 years. The great majority of the students (78.7%) stated that they lived in a nuclear family, and the majority (60.0%) stated that there was no gender discrimination between siblings and that they were treated equally. Only 6.7% of the students reported that they had received gender-related education before. It was determined that there was no difference between the groups, and that the groups were homogeneous ($p > 0.05$) (Table 2).

The mean PGS scores of the control group students were 93.16 ± 7.90 in the pre-test, and 95.29 ± 10.89 in the post-test, and the difference was not statistically significant ($p < 0.05$). It was determined that the students in the intervention group had a mean PGS score of 95.63 ± 5.86 in the pre-test and that the score increased to 114.39 ± 4.43 after the training, and the difference was found to be statistically significant ($p < 0.05$). In the evaluation between groups, while the difference between the mean PGS scores was not significant in the pre-test ($p > 0.05$), it was found to be significantly higher in the post-

test ($p < 0.05$). As a result of these findings, the H_1 hypothesis was accepted (Table 3).

It was found that the control group students' mean GES scores were 23.83 ± 9.31 in the pre-test and 25.81 ± 13.24 in the post-test, and the difference was not statistically significant ($p > 0.05$). The mean GES scores of the students in the intervention group were 20.47 ± 6.46 in the pre-test and 17.28 ± 7.93 in the post-test, and the difference was found to be statistically significant ($p < 0.05$). In the evaluation between groups, while there was no significant difference between the mean GES scores or the mean scores of the UtCMS and UtSFM sub-dimensions in the pre-test ($p > 0.05$), the difference was found to be significant in the post-test ($p < 0.05$).

Accordingly, the H_2 hypothesis was accepted (Table 3).

It was found that the mean GRAS scores of the control group students were 36.27 ± 9.15 in the pre-test and 37.89 ± 11.51 in the post-test. It was seen that the difference was not statistically significant ($p < 0.01$). In the intervention group students, the mean score of 36.36 ± 9.59 in the pre-test increased to 45.63 ± 45.63 after the training, and the difference was significant ($p < 0.05$). In the evaluation between groups, while the difference between the mean GRAS scores was not significant in the pre-test ($p > 0.05$), it was found to be significantly higher in the post-test ($p < 0.05$). As a result of these findings, the H_3 hypothesis was accepted (Table 3).

Table 1. The Program Content of the Gender Studies

Weeks	Subjects
1	Concepts of gender, gender role, gender equality
2	Theories about gender
3	Structuring of gender-based on sex (social values, religion, culture, family and myths, etc.)
3	The state of gender equality in the world and Turkey (in the field of education, economy, health, and politics)
4	Policies, laws, and international agreements to ensure gender equality
5	Gender and language
6	Gender and the media
7	Gender and care concept
8	Gender and health behaviors
9	Circumcision and military service over masculinity
10	Violence against women
11	Policies to prevent violence against women
12	Gender and the medicalization of health
13	Gender through transgender identity
14	Reproductive health services and gender

Table 2. Descriptive characteristics of the students in the intervention and control groups

Characteristics	Intervention group		Control group		χ^2/K W	p
	n	%	n	%		
Age (Mean, SD)	19.44 (1.17)		19.75 (1.77)		0.485	0.486
Gender						
Female	26	68.4	18	48.6	3.022	0.066
Male	12	31.6	19	51.4		
Longest lived place						
Village	6	15.8	8	21.6	0.545	0.761
District	18	47.4	15	40.5		
City	14	36.8	14	37.8		
Income status						
Income less than expenses	10	26.3	13	35.1	1.401	0.496
Income equals expense	22	57.9	21	56.8		
Income more than expenses	6	15.8	3	8.1		
Mother's educational status						
Primary school graduate	20	52.6	17	45.9	3.284	0.350
Secondary school graduate	5	13.2	4	10.8		
High school graduate	5	13.2	11	29.7		
Bachelor's degree	8	21.1	5	13.5		
Father's educational status						
Primary school graduate	21	55.3	20	54.1	0.589	0.899
Secondary school graduate	6	15.8	4	10.8		
High school graduate	7	18.4	8	21.6		
Bachelor's degree	4	10.5	5	13.5		
Family type						
Nuclear family (parents together)	31	81.6	28	75.7	0.473	0.790
Nuclear family (mother or father only)	2	5.3	2	5.4		
Extended family	5	13.2	7	18.9		
Number of Siblings (Mean, SD)	3.97 (3.07)		4.02 (3.16)		0.048	0.826
Thinking that there is gender discrimination between siblings						
I don't have siblings of different gender	3	7.9	8	21.6	3.641	0.303
No discrimination, equal treatment	23	60.5	22	59.5		
My sister/brother has more rights than me	8	21.1	5	13.5		
My sister/brother has fewer rights than me	4	10.5	2	5.4		
Having education about gender						
Yes	4	10.5	1	2.7	1.844	0.187
No	34	89.5	36	97.3		

Table 3. Change over time in the scores of students in the intervention and control groups regarding gender perceptions, equality, and roles, mean (SD)^c

	Intervention group			Control group			Difference between groups (p ^b)	
	Pre-test	Post-test	P ^a	Pre-test	Post-test	P ^a	Pre-test	Post-test
Gender Perception Scale	95.63 (5.86)	114.39 (4.43)	0.000** *	93.16 (7.90)	95.29 (10.89)	0.2 51	0.183	0.000***
Gender Equality Scale	20.47 (6.46)	17.28 (7.93)	0.003**	23.83 (9.31)	25.81 (13.24)	0.9 29	0.146	0.000***
<i>Perspective that Sees Men Superior</i>	11.28 (3.54)	10.26 (5.88)	0.015*	13.27 (5.21)	14.94 (8.59)	0.5 63	0.104	0.000***
<i>Perspective That Sees Women Dependent on Men</i>	9.18 (3.66)	7.02 (2.88)	0.002**	10.56 (4.95)	10.86 (5.31)	0.8 85	0.277	0.000***
Gender Roles Attitude Scale	36.36 (9.59)	45.63 (15.89)	0.002**	36.27 (9.15)	37.89 (11.51)	0.2 63	0.779	0.032*

^aWilcoxon Signed Ranks test, ^bMann-Whitney U test. ^cThe median values of the variables were the same, and there was a statistically significant difference between the within-group and between-group scores, so the mean and standard deviation values were used

Discussion

It is necessary and important to increase nursing students' awareness of the concept of gender and for them to gain an egalitarian perspective on gender before starting their professional life (Basar & Demirci, 2018). The positive gender perception of the students studying in the nursing department will enable them to show an egalitarian attitude in the society they will serve in the future (Turan et al., 2017). In our study, the attitudes towards gender perceptions, equality, and roles of nursing students who took and did not take the gender studies course were compared, and it was observed that after the gender studies course, students' gender perceptions and role attitudes towards gender increased positively. Students' perspectives on gender changed in an egalitarian direction.

In our study, while there was an increase of 18.76 points in the total PGS mean score of the students who took the gender studies course, there was an increase of only 2.13 points in the mean score of the students who did not take the course. It was determined that the total PGS mean score of the students who took the gender studies course (114.39±4.43)

was higher than that of the students who did not take the course (95.29±10.89) (p<0.05). Thus, the H₁ hypothesis was accepted. Similar to our study findings, it was shown that "Gender" (Gonenc et al., 2018) and "Women's Health and Diseases Nursing" (Turan et al., 2017) courses increased students' perceptions of gender. In the study by Gonenc et al. (2018), the mean PGS score of nursing and midwifery students who took the "Gender" course (114.63±12.39) was found to be statistically significantly higher than those who did not take the course (107.60±13.60) (p=0.014). In the study by Turan et al. (2017), after the "Women's Health and Diseases Nursing" course, the mean PGS score of the students (before the course: 92.17±14.89; after the course: 97.21±13.74) increased statistically significantly (p=0.000), that is, the education given was found to increase the perception of gender. The study by Ozan et al. (2020) determined that a structured education applied to medical school students raised awareness of students' perception of gender. In the study by Uzun et al. (2017), it was found that training on "Gender Equality and Combating Violence Against Women" positively

affected the participants' gender perceptions and attitudes towards gender roles. In the study by Uslu and Erenoglu (2021), it was shown that the gender course had effects on raising awareness about the perception of gender equality in nursing students. In the study by Liao and Wang (2020), it was determined that integrating a gender perspective into the education curriculum of medical school students resulted in positive learning outcomes in terms of gender awareness and critical thinking in students. According to these results, it is seen that gender-oriented training and courses enable participants to acquire knowledge about gender, increase their awareness and positively affect their perceptions of gender. These results show that the training to be given from an early age on gender will be effective.

Considering that nursing students are in constant interaction with the individual and society and serve the development of public health, they have important responsibilities to develop social awareness of gender discrimination and ensure gender equality. It is important to determine the attitudes of students towards gender equality (Yanikkerem et al., 2020). In our study, it was determined that the total mean GES score of the students who took the gender studies course (17.28 ± 7.93) was lower than that of the students who did not take the course (25.81 ± 13.24) ($p < 0.05$). Accordingly, the H_2 hypothesis was accepted. Similar to our study findings, in the study by Yanikkerem et al. (2020), it was found that students who had heard of the concept of gender, attended training on gender, or took a gender equality course had a more egalitarian perspective. These results were interpreted as showing that taking a gender studies course distanced students from the traditional understanding that accepts male supremacy in society and makes women dependent on men in family relations, and that it affected students' attitudes positively.

In our study, it was determined that the total mean GRAS score of the students who took the gender studies course (45.63 ± 45.63) was higher than that of the students who did not take the course (37.89 ± 11.51) ($p < 0.05$). Thus, the H_3 hypothesis was accepted. In the studies

by Bahadir Yilmaz and Ekin (2020) and Egelioglu Cetisli et al. (2017), it was shown that students who took gender equality courses had a more "egalitarian attitude" towards gender roles than students who did not take the course. In the study by Karacay Yikar et al. (2020), it was seen that nursing department students who reported that they knew the concept of gender displayed a more egalitarian attitude towards gender roles than students who reported that they did not know about it. Bahadir Yilmaz (2018) stated in her study that midwifery students who took gender equality courses were helped to develop more positive attitudes towards gender roles. In the study by Ozcan et al. (2017), it was found that the education given to students regarding gender led to a positive change in students' attitudes towards gender from traditional to egalitarian attitudes. In the study by Koc et al. (2021), it was reported that the gender role attitudes of university students who took a course on gender increased positively. These results are remarkable in that they show that education is effective in positively developing the attitudes of individuals.

Limitations of the study: The fact that the students' attitudes towards gender perception, equality, and roles were not measured in the long term constitutes a limitation of this study. Another limitation is that the assessment is based only on students' self-reports. This situation may have caused bias, such as giving socially desired answers.

Conclusion and implications: In this study, the gender perceptions, equality, and attitudes of nursing students who took and did not take a gender studies course were compared, and it was seen that the gender perceptions and role attitudes of the students who took the gender studies course increased positively, and that the students' perspectives on gender changed in an egalitarian direction. In our study, we think that future nurses' adoption of an egalitarian perspective on gender roles will reduce discrimination in gender roles in the field of health. Considering these results, it is thought that it is important to include the gender equality course in the curricula of faculties and colleges that train health personnel and to raise awareness of students about gender perception, roles, and equality.

Nursing students have an important place both because they are adults of the future and because they create professional health power that can reach many disadvantaged groups. Nursing students need to develop awareness about gender before graduation so that they can take responsibility for this issue in their professional lives. Nurses, who are trained with an egalitarian perspective, have very important duties in fostering this perspective in society. As a result of our study, it was determined that the students who took the gender studies course had higher mean scores on the PGS, GES, and GRAS than those who did not. For this reason, gender and related concepts should be added to the education curricula of health care professions such as nursing. Academicians who provide nursing education at universities should raise students' awareness of gender-specific roles, perceptions, and inequality in the profession from the first years of education. It is important for the nurses and managers working in the clinic to receive serious training on this issue and to increase their awareness in terms of taking the nursing profession to the place it deserves, strengthening it, and organizing it. To create an egalitarian perception of gender and roles, peer education should be carried out and nursing students should be supported to transfer this information to each other in different universities and institutions. Nursing students' awareness of gender roles shaped by society should be increased by ensuring that the subject is discussed in panels and symposiums to be held on gender equality. The establishment of clubs or student societies for gender equality and participation in such activities should be supported. All these approaches can contribute to the professional development of students and the quality of health care they will provide in the future, as well as being effective in increasing the awareness and consciousness of society. To reduce the effect of the traditional approach and to raise students' awareness of gender equality, a gender studies course for students should be added to the curriculum of the primary school period.

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References

- Altinova, H.H., & Duyan, V. (2013). The Validity and reliability of Perception of Gender Scale. *Journal of Society and Social Work*, 24(2), 9-22.
- Avci, N., Cayir, G., Kizilkaya Beji, N., & Savaser, S. (2021). Evaluation of gender courses offered in accord with the curriculum of the faculties of health sciences in Turkish universities. *Florence Nightingale Journal of Nursing*, 29(1), 65-73. doi: 10.5152/FNJJN.2021.19033.
- Bahadir Yilmaz, E., & Ekin, H. (2020). The relationship between midwifery students' opinions of male midwives and gender role attitudes. *Jaren*, 6(1), 117-24. doi:10.5222/jaren.2020.93685
- Bahadir Yilmaz, E. (2018). The effectiveness of a gender equality course in changing undergraduate midwifery students' attitudes towards domestic violence and gender roles. *Central European Journal of Nursing and Midwifery*, 9(2), 840- 847. doi: 10.15452/CEJNM.2018.09.0013
- Bakioglu, F., & Turkum, A.S. (2019). Adaptation of gender role attitudes scale to Turkish: a study of validity and reliability. *Kastamonu Education Journal*, 27(2), 717-725. doi: 10.24106/kefdergi.2697
- Basar, F., & Demirci, N. (2018). Attitudes of nursing students toward gender roles: a cross-sectional study. *Contemporary Nurse*, 54(3), 333-344. doi:10.1080/10376178.2018.1504623
- Clever, K., Richter, C., & Meyer, G. (2020). Current approaches to the integration of sex- and gender-specific medicine in teaching: a qualitative expert survey. *GMS Journal for Medical Education*, 37(2), Doc26. doi:10.3205/zma001319
- Egelioglu Cetisli, N., Top, E.D., & Sık, G. (2017). The gender attitude related roles of university students who continued or not the gender equality course. *Florence Nightingale Journal of Nursing*, 25(2), 104-110. doi: 10.17672/fnhd.07668
- García-Cueto, E., Rodríguez-Díaz, F.J., Bringas-Molleda, C., López-Cepero, J., Paíno-Quesada, S., Rodríguez-Franco, L. (2015). Development of the Gender Role Attitudes Scale (GRAS) amongst young Spanish people. *International Journal of Clinical and Health Psychology*, 15(1), 61-68. Doi: 10.1016/j.ijchp.2014.10.004
- Gonenc, I.M., Topuz, S., Yilmaz Sezer, N., Yilmaz, S., Buyukkayaci Duman, N. (2018). Effect of gender course on gender perception. *Journal of Ankara Health Sciences*, 7(1), 22-29.

- Gozutok, F.D, Toraman, C., Acar Erdol, T. (2017). Development of Gender Equality Scale. *Elementary Education Online*, 16(3), 1036-1048. doi:10.17051/ilkonline.2017.330240.
- Gunes, H.N. (2020). The effects of Gender course on sexist attitudes. *Nosyon: International Journal of Society and Culture Studies*, (6), 33-51
- Higher Education Institution Press and Public Relations Consultancy (2015, May 29). *Gender-sensitive university workshop final report*. <https://dspace.ceid.org.tr/xmlui/bitstream/handle/1/122/ekutuphane3.3.3.3.pdf?sequence=1&isAllowed=y>
- Karacay Yukar, S., Dogan, S.D., Aydingulu, N., Arslan, S., & Nazik, E. (2020). Determining nursing students' attitudes towards gender roles: the case of Cukurova University Faculty of Health Sciences. *Ordu University Journal of Nursing Studies*, 3(2), 104-113. doi:10.38108/ouhcd.704397
- Koc, G., Yucel Ozcirpan, C., Terzioglu, F., Simsek Cetinkaya, S., Uslu-Sahan, F., Akin Isik, R. & et al. (2021). The effect of a gender course on the gender attitudes, critical thinking dispositions, and media literacy skills of university students. *Journal of Higher Education*, 11(2), 387-400 . doi:10.2399/yod.20.640377
- Larrondo, A., & Rivero, D. (2019). A case study on the incorporation of gender-awareness into the university journalism curriculum in Spain. *Gender and Education*, 31(1), 1-14. doi: 10.1080/09540253.2016.1270420
- Liao, H.C., & Wang, Y.H. (2020). Integrating the gender perspective into literature studies to enhance medical university students' gender awareness and critical thinking. *International Journal of Environmental Research and Public Health*, 17(24), 9245. doi:10.3390/ijerph17249245
- Lips, H.M. (2020). *Sex and Gender: An Introduction*. Seventh Edition. Waveland Press.
- Ozan, S., Miman, O., Guvercin, C.H., Demiroglu Uyaniker, Z. (2020). The effect of a structured education module on medical students' perceptions and attitudes towards gender and dating violence. *The World of Medical Education*, 19(58), 24-41. doi: 10.25282/ted.619272
- Ozcan, A., Karatas, N., Sevig, U. (2017). The effect of gender education on gender role attitudes of university students. *Researcher: Social Science Studies*, 5(4), 53-67. doi:10.18301/rss.504
- Stoller, R.J. (2020). *Sex and Gender*. The Development of Masculinity and Femininity. Routledge, London.
- Thompson, H., Coleman, J.A., Iyengar, R.M., Phillips, S., Kent, P.M., & Sheth, N. (2020). Evaluation of a gender-affirming healthcare curriculum for second-year medical students. *Postgraduate Medical Journal*, 96(1139):515-519. doi:10.1136/postgradmedj-2019-136683
- Turan, Z., Aydin, N., & Toker, E. (2017). Examination on the effect of gender perception of nursing students of "Women's Health and Diseases Nursing Course". *Journal of Human Sciences*, 14(3), 2677-2687. doi:10.14687/jhs.v14i3.4693
- UNDP. (2020). Human development report. The next frontier: Human development and the Anthropocene. <http://hdr.undp.org/sites/default/files/hdr2020.pdf>
- UNICEF. (2017). Gender equality: glossary of terms and concepts. <https://www.unicef.org/rosa/media/1761/file/Gender%20glossary%20of%20terms%20and%20concepts%20.pdf>
- Uslu, N., & Erenoglu, R. (2021). Does the gender course have any effects on young people's gender equality perceptions, dating violence, and problem-solving behaviours in romantic relationships?: A mixed-method study. *Perspectives in Psychiatric Care*. doi: 10.1111/ppc.12889.
- Uzun, Z., Erdem, S., Guc, K., Safak Uzun, A., & Erdem, E. (2017). The effect of education on gender perception and gender role attitudes: An experimental study. *Journal of Human Sciences*, 14(1), 678-693. doi: 10.14687/jhs.v14i1.4354
- World Health Organization (2010). *Gender, Women and Primary Health Care Renewal: A Discussion Paper*, Geneva
- van Staveren, I. (2021). Measurement of Well-Being. In Berik, G., & Kongar, E (Eds.), *The Routledge Handbook of Feminist Economics*. New York: Routledge
- Yanikkerem, E., Topsakal, O., & Boz, A. (2020). Determination of the attitudes of university students at Faculty of Health Science about gender equality. *Journal of Duzce University Health Sciences Institute*, 10(2), 164-171.
- Yigiteli, N., & Sanli, D. (2020). Calculation of human development indices in Turkish provinces. a comprehensive panel dataset for the 2009- 2018 period. *Journal of Economy Culture and Society*, 61: 1-40. doi: 10.26650/JECS2019-0068