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Journal for Educators, Teachers and Trainers, Vol. 12 (3)

<https://jett.labosfor.com/>

Date of reception: 19 Feb 2021

Date of revision: 18 May 2021

Date of acceptance: 17 Aug 2021

Hakan AKDENİZ, Ebru MISIRLIOĞLU, Gülşah SEKBAN (2021). Examination of ambivalent sexism inventory and gender roles of female students of the school of sports sciences. *Journal for Educators, Teachers and Trainers*, Vol. 12(3), 122 – 132.

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ABSTRACT

The purpose of this study was to determine whether female students at the Faculty of Sports Sciences (FSS) of Kocaeli University differed in terms of various variables according to various variables of the ambivalent sexism inventory and gender roles. The sample group consisted of 235 female students studying at the FSS. To obtain the data, the ambivalent sexism inventory: Differentiating hostile and benevolent sexism and BEM Gender Role Inventory were used. In the analysis of the data, frequency, correlation Manova, Tukey and post-hoc tests were used. The results revealed that, there was a positive relationship between the negative aspects of sexism and benevolent sexism. These were the subscales of the ambivalent sexism according to the Scandinavian Sense of Sexuality and Sexuality Scores. There was no significant difference found between the masculinity of the sub-dimensions of hostile sexism and gender roles. There was a statistically significant difference between the ambivalent sexism and its sub-dimensions, BCRE and sub-dimension levels according to branch variables of female students in the Faculty of Sports Sciences. The female students in the Department of Coaching were significantly higher than the female students in the Recreation Department. The female students, with 7-9 years of experience in sport had higher scores than the others.

Keywords: Conflicting Sense of Sexism, Sex Roles, Hostile Sexism, Conservative Sexism, Masculinity, Femininity

INTRODUCTION

One of the most important problems in the society is the sexual apartheid (Dökmen,1999). Sex is the physiological and anatomical changes that are determined by genetics aspects between the male and female. Accordingly, it is an inborn status (Ayan, 2014). Gender role is a series of expectations relating to the gender in which the individuals need to perform; it is defined by the society and supposed to mention the femininity and masculinity. Mızrak Şahin, Özerdoğan 2014 define the sexism as discriminating and valuing a gender above another gender (Küçük and Miman, 2015).

Women and men have changed by being under the influence of various factors from past to present. First of all, there is the need for discussing on the sex concept to understand these gender gaps that are created by the repetition of social aspects beyond the biological differentiation. After, it will be beneficial to review the effects of sexism on the sport to understand the issue (Yüksel,2014).

Sex is the physiological and anatomical changes that are determined by the genetic aspects of male and females Ayan, (2014) Baron, Byrne, (2000). Accordingly, it is an inborn status (Ayan,2014), (Özgiiven,2001).

While the sex that is a biological concept that indicates the genetic, biological, physiological attributes and differences of the person as a male or female; the gender includes the status of woman and man within the society, their roles, duties, and responsibilities. The gender also shows the perception and expectations of the society about the person regarding the sex (Öngen and Aytaç, 2013).

Sexism means discriminating against individuals by acting them based on their sexes. Women are mostly exposed to this discrimination (Bem, 1975; 1981; Bem et al., 1976; Dökmen, 2010; Glick and Fiske, 1996; 1997; Sakallı-Uğurlu, 2002; 2003) (Erkurt,2015). It is determined that sexism is reflected in the society by two different aspects: hostile sexism and conservative sexism (Glick, Fiske 1996, 1997). Hostile sexism is perceiving the women at lower levels than men; accepting women as weak and unpowered. In conservative sexism, there is a belief to love and protect the women who are accepted as weak and unpowered; to display behaviors in that direction. Much as the conservative sexism appears like containing milder attitudes toward

women when it is compared with the hostile sexism, the conservative sexism also damages the personality of women and accepts women at lower levels than men (Glick, Fiske, 1996, 1997), (Sakallı, Uğurlu, 2002, 2003). The dilemma based on having these two kinds of sexism together is called the ambivalent sexism (Erkurt, 2015). Conservative and hostile sexism are composed of patriarchy, heterosexuality and gender discrimination. The discriminations mentioned arise in different shapes in hostile and conservative sexism (Glick, Fiske, 1996, 1997). Glick and Fiske (1996) pointed out that heterosexuality is the most violent mainstay of the ambivalent sexism.

The sex roles are limited as the male-female roles and confirmed as the human belongs to either female or male role; two roles cannot be played in a human at the same time. However, it is expressed in the modern day, the human can display male and female roles at the same time (Bem, 1974). With reference to this information, the sex roles are specified as androgen, masculine and feminine (Dökmen, 2018). The person who approves the attributes that are assigned to women is called as feminine; the person who approves the attributes that are assigned to men is called as masculine (Özkan and Lajunen, 2005:103)(Gelibolu, Tanrikulu, 2014). A woman can have masculine characteristics as well as a man can have the feminine characteristics (Güçer, et al., 2013). Except for these two groups, there are defined gender identity groups as androgen in which both masculine and feminine characteristics are high in number. There are also defined gender identity groups as unregistered in which both masculine and feminine characteristics are few in number (Bem et al., 1976) (Gelibolu, Tanrikulu, 2014).

It is pointed out in a research conducted in Turkey that men have many masculine attributes, the women have many feminine attributes (Dökmen, 1999). Dökmen (1999) performed a meta-analysis study and observed that the masculine characteristics of women increase over the time. It is reported in a study in Turkey that even though the women have more feminine characteristics, the men and women are not different from each other in terms of masculine characteristics. This determination is explained by the increase in masculinity attributes of the woman in time (Özkan and Lajunen, 2005).

Increasing masculinity in women is identified with the changes that they experience in cultural and socioeconomic life (Özkan and Lajunen, 2005; Twenge, 1997). Beginning to work is the leading change. Another reason for the change is the increase in the education levels of women; they have become more career-wise (Twenge, 1997).

Masculinity in Turkish culture necessitates the masculinity of work-oriented women in addition to traditional effeminacy. Accordingly, it is asked for women to display both effeminacy and masculinity, namely is it asked for them to be androgen. One of the other expectation from the modern Turkish woman is being more flexible, compatible with the independent environmental condition (Özkan and Lajunen, 2005).

The sex is determined by nature; the sex roles are determined by the culture. While the sex roles that extend back a long time affect the perspective of male and female to sportive practice, these roles differentiate the sporting rates, sports they have played, sports they want to play and also the sporting goals (Yüksel, 2014).

This research was performed to determine whether the sex roles of the female athletes vary in terms of several variables and to review the sex roles of these athletes in ambivalent sexism. It is thought that this research will contribute to the literature and for next studies in the light of results found in terms of different variables.

MATERIAL AND METHOD

Research Design

The descriptive survey method was used in the research to reveal the current situation. Descriptive survey models are the working model or approach that aims to describe a situation in the past or present as is. The case, person or the object that is the subject of the research is tried to be defined as is within its own conditions. There is not made an effort to change and affect them in any way. The essential issue is to specify them by observing it properly. Relational screening models are the research models that aim to diagnose the presence or the degree of mutual exchange between two or more than two variables (Karasar, 2004).

Research Group

The population was composed of 635 female students study in the Faculty of Sports sciences; 150 participants study in Physical Education and Sports Teaching; 169 participants study in Coaching; 159 participants study in Recreation department; 157 participants study in Sports Management Department. The sample of the research was constituted by randomly selecting 235 female students; 66 students from Physical Education and Sports Teaching; 65 students from Coaching department; 50 students from Recreation department and 54 students from Sports Management Department. Sample criteria are as follows; being female to participate in the study, being the volunteer and disposed to participate in the study, attending the school actively.

Data Collection Tools

'Ambivalent Sexism Inventory' that was developed by Glick and Fiske (Glick, Fiske, 1996) and translated into Turkish by Sakallı-Uğurlu (Sakallı, Uğurlu, 2002) was used in this research to determine the ambivalent sexism

of the students study in Kocaeli University Sports Sciences Faculty. 'BEM Sex Role Inventory' that was developed by BEM (Bem,1974) and adapted to Turkish by Kavuncu (Kavuncu,1987) was used to specify the sex roles of the students. Moreover, the student information form (Appendix 1) that includes the demographic features was utilized.

Socio-Demographic Information Form

Socio-Demographic Information Form with 7 questions was prepared by the investigator to determine the socio-demographic attributes of the students (Appendix 1).

Ambivalent Sexism Inventory:

This scale was developed by Glick and Fiske in 1996. Adaptation to Turkish was actualized by Sakallı and Uğurlu in 2002 (Erkurt,2015). This is a six-point Likert scale that is composed of 22 questions. While 11 choices measure the Hostile Sexism, other 11 choices measure the Conservative Sexism. This scale was reorganized because of causing problems in intercountry studies; it was designed so as to express the sexism and not to necessitate reverse coding (Glick et al., 2000). The scale is composed of 'conservative sexism' and 'hostile sexism' sub-dimensions. 6 points mean 'absolutely agree' 1 point means 'strongly disagree'.

Bem Sex Role Inventory

BEM Sex Role Inventory was developed to determine which sex role attributes that people belong to (Bem, 1974). BEM Sex Role Inventory is composed of three scales. These are; 1)Social Acceptability Scale, 2) Femininity Scale, 3) Masculinity Scale. The evaluation scale that is developed as the seven-point Likert scale is composed of 60 questions. Social acceptability scale has 20 questions; femininity scale has 20 questions; masculinity scale has 20 questions. Social acceptability scale was not included in this study. It is seen that this scale has not been included in some of the surveys (e.g., Bemard, Boyle, 1990; Chusmir and Koberg, 1990) during the recent years. Different points are obtained for each of the scales by evaluating these sub-scales are separately analyzed. In the original form, it is applied as a single scale by mixing 60 questions belong to three scales.

Data Collection

It was asked the female students study in Kocaeli University Sports Sciences Faculty to fill the form via a link on the internet.

Required permissions were received to be applied the surveys prepared. The surveys were tried to be applied to all the students in the sample group; the students who did not want to participate did not fill out the forms. The surveys of students who did not mark the demographic information and scale questions were not evaluated.

Data Analysis

IBM SPSS Statistics 21 packaged software analyzed the data that were collected via the internet. Frequency and percentage analyses were utilized to determine the defining characteristics of female student's study in Kocaeli University Sports Sciences Faculty

Pearson product-moment correlation coefficient and linear regression analysis were used to review the ambivalent sexism and sex roles levels of the female students.

T-test MANOVA technique and post-hoc analyses were utilized to review the differentiation status of sex roles and ambivalent sexism of female students based on the defining characteristics.

FINDINGS

Findings of the study are presented via related tables and figures as in the following:

Table 1: Demographic Attributes and Descriptive Statistics

| Age | N | % |
|--|-----|------|
| 18-20 | 22 | 9,4 |
| 21-23 | 147 | 62,6 |
| 24-26 | 58 | 24,7 |
| 27 and older | 8 | 3,4 |
| Sporting situation | N | % |
| Amateur | 156 | 66,4 |
| Professional | 79 | 33,6 |
| How long have you been playing sports? | N | % |
| 1-3 | 69 | 29,4 |
| 4-6 | 74 | 31,5 |
| 7-9 | 57 | 24,3 |

| | | |
|--|----------|----------|
| 10 and above | 35 | 14,9 |
| Department | N | % |
| Coaching | 65 | 27,7 |
| Physical Education and Sports Teaching | 66 | 28,1 |
| Recreation | 50 | 21,3 |
| Sports Management | 54 | 23,0 |
| Grade | N | % |
| Other | 38 | 16,2 |
| 1 | 11 | 4,7 |
| 2 | 8 | 3,4 |
| 3 | 56 | 23,8 |
| 4 | 122 | 51,9 |
| Branch | N | % |
| Individual | 148 | 63,0 |
| Team | 87 | 37,0 |
| Total | 235 | 100,0 |

100% (n:235) of the students were female. As is seen in Table 1, 9,4% of the students are in 18-20 age group; 62,6% of the participants are in 21-23 age group; 24,7% of the students are in 24-26 age group; 3,4% of them are 27 years old and older.

It is observed when the department variable is analyzed that 28,1% of the participants study in Physical Education and Sports Teaching; 23,0% of the participants study in Sports Management Department; 27,7% of the participants study in Coaching department; 21,3% of the participants study in Recreation department. About the sporting status, 66,4% of the participants are amateurs; 33,6% of the participants are the professionals.

29,4% of the participants have played sports for 1-3 years; 31,5% of the participants have played sports for 4-6 years; 24,3% of the participants have played sports for 7-9 years; 14,9% of the participants have played sports for 10 years and above.

About the branch variable, 63% of the participants play individual sports; 37% of the participants play team sports.

Table 3: Descriptive Statistics of Female Students Study in Sports Sciences Faculty relating to Ambivalent Sexism and Sex Roles

| | N | Min | Max | \bar{X} | ss |
|----------------------------|-----|-------|--------|-----------|----------|
| Hostile Sexism | 235 | 11,00 | 61,00 | 37,2340 | 12,62004 |
| Conservative Sexism | 235 | 11,00 | 65,00 | 43,9830 | 13,06949 |
| Masculinity | 235 | 56,00 | 140,00 | 111,0468 | 13,85833 |
| Effeminacy | 235 | 65,00 | 140,00 | 113,5702 | 13,18890 |

As is seen in Table 3, about the hostile sexism levels of female students study in Sports Sciences Faculty, the lowest point through 66 points is 11; the highest point through 66 points is 61. Hostile sexism average of the students is $37,23 \pm 12,62$ as well as they are hostile sexists at the medium level.

It is observed when the conservative sexism levels are observed that the lowest point through 66 points is 11; the highest point through 66 points is 65. Conservative sexism average of students is $43,98 \pm 13,06$ as well as it is determined that they are conservative sexist at the high level.

About the masculinity level, the lowest point through 140 points is 56; the highest point through 140 points is 140. Masculinity average of the students is $111,04 \pm 13,85$ as well as they have masculinity at a high level.

About the effeminacy levels, the lowest point through 140 points is 65; the highest point through 140 points is 140. Average of effeminacy of students is $113,57 \pm 13,18$; they have effeminacy at a high level.

Table 4: Analysis Results Relating to Ambivalent Sexism and Sex roles

| | | 1 | 2 | 3 | 4 |
|----------------------------|---|--------|-------|---|---|
| Hostile Sexism | r | 1 | | | |
| | p | | | | |
| Conservative Sexism | r | ,596** | 1 | | |
| | p | ,000 | | | |
| Masculinity | r | -,052 | ,145* | 1 | |
| | p | ,429 | ,026 | | |

| | | | | | |
|----------------------------|---|--------|------|--------|---|
| Effeminacy | r | -,158* | ,119 | ,660** | 1 |
| | p | ,015 | ,069 | ,000 | |
| *p< 0.05; **p< 0.01; N=235 | | | | | |

It is found when looking at the scores of ambivalent sexism and sex roles in Table 4 that there is a positive relationship ($r=,596$, $p<0,05$) between hostile sexism and conservative sexism that are the sub-dimensions of the ambivalent sexism. There was not found a significant difference between masculinity and hostile sexism ($r=,052$, $p>0,05$). There is a negatively significant relationship between hostile sexism and effeminacy ($r=-,052$, $p<0,05$). The positively significant difference was found between conservative sexism and masculinity ($r=,145$, $p<0,05$). There is not a significant difference between conservative sexism and effeminacy ($r=,119$, $p>0,05$). A significant relationship at a high level was observed between masculinity and effeminacy ($r=,660$, $p<0,05$).

Table 5: Differentiating the Ambivalent Sexism and Sex Roles of Female Students based on the Department

| Source | Dependent variable | KT | Df | KO | F | P |
|---|---------------------|----------|----|----------|-------|------|
| Department | Hostile Sexism | 1056,857 | 1 | 1056,857 | 6,800 | ,010 |
| | Conservative Sexism | 839,584 | 1 | 839,584 | 4,999 | ,026 |
| | Masculinity | 775,044 | 1 | 775,044 | 4,089 | ,044 |
| | Effeminacy | 1047,831 | 1 | 1047,831 | 6,157 | ,014 |
| Wilks' Lambda $\lambda=,942$; $F=3,561$ $p=,008$ | | | | | | |

As is seen in Table 7, the values (Wilks' Lambda $\lambda=,942$; $F=3,561$ $p=,008$) obtained at the end of one-way MANOVA show that there is the statistically significant difference between AS&sub-dimensions and BCRE&its sub-dimension levels based on the department variables of female students study in Kocaeli University sports Sciences faculty

It is determined when looking at Table 7 that the AS Hostile Sexism ($\bar{X}= 40,00\pm 10,38$) sub-dimension of female students who play team sports is significantly higher ($\bar{X}=35,60\pm 13,53$) in comparison with the female students who play individual sports.

According to other findings, conservative sexism sub-dimension ($\bar{X}= 46,44 \pm 9,95$) of these female students who play team sports is significantly higher ($\bar{X}=42,53\pm 14,43$) in comparison with the female students who play individual sports.

With reference to other observation, the masculinity sub-dimension ($\bar{X}= 108,67\pm 15,72$) of female students who play team sports in Kocaeli University is significantly higher ($\bar{X}=112,43\pm 12,48$) in comparison with the female students who play individual sports in the same university

BCRE effeminacy sub-dimension ($\bar{X}= 110,81\pm 14,20$) of the female students who play team sport in Kocaeli University is significantly higher ($\bar{X}=115,18\pm 12,31$) in comparison with the female students who play individual sports.

Table 6: MANOVA Results of Ambivalent Sexism and Sex Roles of Female Students Based on the Department

| Effect | | Value | F | df | P |
|------------|--------------------|-------|--------------------|-------|------|
| Department | Pillai's Trace | ,058 | 3,561 ^b | 4,000 | ,008 |
| | Wilks' Lambda | ,942 | 3,561 ^b | 4,000 | ,008 |
| | Hotelling's Trace | ,062 | 3,561 ^b | 4,000 | ,008 |
| | Roy's Largest Root | ,062 | 3,561 ^b | 4,000 | ,008 |

Table 6 shows the branch variable MANOVA results belong to AS and BCRE levels. There was found a significant difference between the groups of the ($p<,05$) independent variable in terms of the dependent variables when Wilks' Lambda was analyzed.

It can be in the light of these conclusions that H2 hypothesis called 'Ambivalent sexism and sex roles of the female students who study in sports sciences faculty have a significant difference in terms of the branch variable' was accepted.

Table 7: Differentiating the Ambivalent Sexism and Sex Roles of Female Students based on Sporting Status

| Source | Dependent Variable | KT | Df | KO | F | P |
|---|---------------------|---------|----|---------|-------|------|
| Sporting status | Hostile Sexism | 86,908 | 1 | 86,908 | ,545 | ,461 |
| | Conservative Sexism | 28,037 | 1 | 28,037 | ,164 | ,686 |
| | Masculinity | ,208 | 1 | ,208 | ,001 | ,974 |
| | Effeminacy | 363,387 | 1 | 363,387 | 2,099 | ,149 |
| Wilks' Lambda $\lambda=,983$; $F=1,015^b$ $p=,400$ | | | | | | |

As is seen in Table 7, the values (Wilks' Lambda $\lambda=,983$; $F=1,015^b$ $p=,400\eta^2$) obtained at the end of one-way MANOVA indicate that there was not found a statistically significant difference AS and its sub-dimensions based on sporting status variable; besides, there was also not found a statistically significant difference between BCRE and its sub-dimension levels.

Table 8: Differentiating the Ambivalent Sexism and Sex Roles of Female Students based on the Department

| Source | Dependent Variable | KT | Df | KO | F | P |
|--|---------------------|----------|----|---------|-------|------|
| Branch | Hostile Sexism | 890,086 | 3 | 296,695 | 1,884 | ,133 |
| | Conservative Sexism | 769,651 | 3 | 256,550 | 1,512 | ,212 |
| | Masculinity | 1260,535 | 3 | 420,178 | 2,222 | ,086 |
| | Effeminacy | 1686,391 | 3 | 562,130 | 3,328 | ,020 |
| (Wilks' Lambda $\lambda=,914$; $F=1,738$ $p=,055$) | | | | | | |

As is seen in Table 8, the values (Wilks' Lambda $\lambda=,914$; $F=1,738$ $p=,055$) obtained at the end of one-way MANOVA indicate that there was not found a statistically significant difference in AS hostile sexism and conservative sexism sub-dimensions based on the department variable; besides, there was also not found a significant difference ($p>,05$) in masculinity sub-dimension that is one of the sub-dimensions of BCRE. However, a significant difference can be seen in effeminacy sub-dimension based on the departments ($p<,05$).

Table 9: One-Way ANOVA Post Hoc Test Results of Ambivalent Sexism and Sex roles of Female Students based on the Department

| | Department | n | \bar{X} | ss | Pos Hoc |
|------------|--|-----|-----------|----------|---------------------|
| Effeminacy | Coaching | 65 | 116,1538 | 11,85753 | Coaching-Recreation |
| | Physical Education and Sports Teaching | 66 | 112,0606 | 13,21989 | |
| | Recreation | 50 | 109,6000 | 15,26634 | |
| | Sports Management | 54 | 115,9815 | 11,68694 | |
| | Total | 235 | 113,5702 | 13,18890 | |

It is determined when looking at Table 9 that BCRE effeminacy sub-dimension ($\bar{X}=116,15\pm 11,85$) of female students in coaching department is significantly higher ($\bar{X}=109,60\pm 15,26$) in comparison with the female students study in Recreation department ($p<,05$).

There was not found a significant difference in AS scale hostile sexism of the female students based on the department variable ($p>,05$).

There was not found a significant difference in AS scale conservative sexism sub-dimension of female students based on the department variable ($p>,05$).

There was not found a significant difference ($p>,05$) in BCRE masculinity sub-dimension based on department variable.

Table 10: Differentiating Ambivalent Sexism and Sex Roles of Female Students based on Sporting Year

| Source | Dependent Variable | KT | Df | KO | F | P |
|--|---------------------|----------|----|---------|-------|------|
| Sporting year | Hostile Sexism | 638,981 | 3 | 212,994 | 1,343 | ,261 |
| | Conservative Sexism | 1375,753 | 3 | 458,584 | 2,745 | ,044 |
| | Masculinity | 382,795 | 3 | 127,598 | ,662 | ,577 |
| | Effeminacy | 708,513 | 3 | 236,171 | 1,364 | ,255 |
| (Wilks' Lambda $\lambda=,943$; $F=1,125$ $p=,336$) | | | | | | |

As is seen in Table 10, the values (Wilks' Lambda $\lambda=,943$; $F=1,125$ $p=,336\eta^2$) obtained at the end of one-way MANOVA indicate that there was not found a statistically significant difference in BCRE masculinity and effeminacy sub-dimensions based on sporting year variable; besides, there was also not found a significant

difference ($p>,05$) AS inventory hostile sexism sub-dimension based on the sporting year. However, a significant difference can be seen in conservative sexism sub-dimension based on the sporting year variable ($p<,05$).

Table 11: One-Way ANOVA Pos Hoc Test Results of Ambivalent Sexism and Sex Roles of Female Students based on Sporting Year Variable

| | Sporting Year | n | \bar{X} | ss | Pos Hoc |
|---------------------|---------------|-----|-----------|----------|---------------------|
| Conservative Sexism | 1-3 | 69 | 40,7681 | 15,74908 | 1-3 year --7-9 year |
| | 10 and above | 35 | 44,4286 | 10,32497 | |
| | 4-6 | 74 | 44,1622 | 13,51511 | |
| | 7-9 | 57 | 47,3684 | 9,22851 | |
| | Total | 235 | 43,9830 | 13,06949 | |

As is seen in Table 11, ASI conservative sexism sub-dimension ($\bar{X}=47,36\pm9,22$) of female students who have played sports for 7-9 years is significantly higher in comparison with the female students who have played sports for 1-3 years ($\bar{X}=40,76\pm15,74$) based on sporting year variable ($p<,05$).

There was not found a significant difference in ASI hostile sexism sub-dimension based on sporting year variable ($p>,05$).

There was not significant difference in BCRE effeminacy sub-dimension based on sporting year variable ($p>,05$).

There was not found a significant difference in BCRE masculinity sub-dimension based on the sporting year variable ($p>,05$).

DISCUSSION

This research was conducted to survey the ambivalent sexism and sex roles of the female students at Kocaeli University Sports Sciences Faculty in Turkey. Besides, this research aimed to review whether the ambivalent sexism and sex roles of the female students differ in terms of various variables.

It is seen when looking at scores of ambivalent sexism and sex roles in Table 4 that there is a positive relationship between hostile sexism and the conservative sexism (Şahin, Özerdoğan 2014). There was conducted a study to measure the health college students' attitudes against the stereotypes on the romantic relationships. Besides, the same research targeted to measure how those attitudes affect the gender differences and sexism. They found a positive significant relationship between the sub-dimensions of stereotypes on romantic relationships and the sub-dimensions of ambivalent sexism. That research findings show parallelism with ours. As is seen in Table 3, about the hostile sexism levels of female students study in Sports Sciences Faculty, the lowest point through 66 points is 11; the highest point through 66 points is 61. Hostile sexism average of the students is $37,23\pm12,62$ as well as they are hostile sexists at the medium level. It is observed when the conservative sexism levels are observed that the lowest point through 66 points is 11; the highest point through 66 points is 65. Conservative sexism average of students is $43,98\pm13,06$ as well as it is determined that they are conservative sexist at the high level. (Uğurlu, Özdemir, 2017) conducted a study called 'A review on physical education teacher candidates' for the sexism against the women. He found the hostile sexism sub-dimension score as ($x=48,0$); conservative sexism sub-dimension score as ($x=44,0$). While these hostile sexism sub-dimension scores do not jibe with the score found in our research, the conservative sexism sub-dimension score in that research shows parallelism with our scores.

Nagoshi et al., 2008 performed a survey with college students to review the gender differences and sex roles in the relationships between homophobia and transphobia. With reference to their findings, hostile sexism and conservative sexism of females are at a low level. This study mentioned have parallels with our research findings (Şahin, Özerdoğan, 2014). Glick et al., (2000) performed a cross-cultural research. They found that the attitudes of women in countries where the sexism is at high levels are positive. This result is explained by the reasons that conservative sexism appears like for the good of women and also the women try to keep themselves.

As is seen in Table 5, MANOVA test results show that there is the statistically significant difference between ASI&sub-dimensions and BCRE&its sub-dimension levels based on the department variables of female students study in Kocaeli University sports Sciences faculty. It is determined when looking at Table 7 that the AS Hostile Sexism sub-dimension of female students who play team sports is significantly higher in comparison with the female students who play individual sports. According to other findings, conservative sexism sub-dimension of these female students who play team sports is significantly higher in comparison with the female students who play individual sports. Since there has not been discussed on the branch dimension in literature, it

can be said that the hostile sexism and conservative sexism scores of female students study in sports faculty are at the same levels.

As is seen in Table 8, MANOVA test results indicate that there was not found a statistically significant difference in ASI hostile sexism and conservative sexism sub-dimensions based on the department variable; besides, there was also not found a significant difference. Since there has not been discussed on the department dimension in literature, it can be said that the hostile sexism and conservative sexism scores of female students study in sports faculty are at the same levels.

With reference to Table 11, ASI conservative sexism sub-dimension of female students who have played sports for 7-9 years is significantly higher in comparison with the female students who have played sports for 1-3 years based on sporting year variable. The issue cannot be discussed because of there has not been discussed on the sporting year variable in the literature

About Table 3, it is seen when the masculinity levels of the female students study in sports faculty that the lowest point through 140 points is 56; the highest point through 140 points is 140. Masculinity average of the students is $111,04 \pm 13,85$ as well as they have masculinity at a high level. About the effeminacy levels, the lowest point through 140 points is 65; the highest point through 140 points is 140. Average of effeminacy of students is $113,57 \pm 13,18$; they have effeminacy at a high level. Nagoshi et al., 2008 performed a survey with college students to review the gender differences and sex roles in the relationships between homophobia and transphobia. With reference to their findings, hostile sexism and conservative sexism of females are at a low level. This study mentioned have parallels with our research findings (Şahin, Özerdoğan, 2014). However, our research findings do not show parallelism with masculinity sub-dimension

Table 7 indicates that the masculinity sub-dimension of female students who play team sports in Kocaeli University is significantly higher in comparison with the female students who play individual sports in the same university. BCRE effeminacy sub-dimension of the female students who play a team sport in Kocaeli University is significantly higher in comparison with the female students who play individual sports. (Baştuğ, Kuru, 2009)

As is seen in Table 7, MANOVA test results refer that there was no significant difference in none of the sub-dimensions. We can say based on this finding that the ambivalent sexism and sex roles of female students who study in sports sciences faculty do not change based on the sporting status variable. However, (Koca and Aşçı, 2000) reviewed the sex roles of females by considering the sporting status. According to the results, masculinity scores of female athletes are higher in comparison with the females who do not play sports (Birrel, 1983). With reference to the report of (Birrel, 1983), the effeminacy attribute in women who play sports changes toward masculinity; the androgen attribute may increase based on this decrement in the effeminacy.

About Table 9, one-way One-Way ANOVA Pos Hoc test results based on ambivalent sexism and sex roles of female students that there was not a significant difference in BCRE and masculinity sub-dimension. There was a significant difference in the effeminacy sub-dimension at the same time. BCRE effeminacy sub-dimension of these female students in the coaching department is significantly higher than the effeminacy sub-dimension of female students in the recreation department. Since there is not a discussion based on the department variable on the literature, it can be said that the effeminacy sub-dimension of female students in coaching department is significantly higher than the effeminacy sub-dimension of female students in the recreation department.

As is seen in Table 10, MANOVA test results indicate that there was not found a statistically significant difference in BCRE masculinity and effeminacy sub-dimensions. However, a significant difference can be seen in conservative sexism sub-dimension based on the sporting year variable ($p < ,05$). Since there is not a survey on the sporting year variable in the literature, this issue could not be discussed.

CONCLUSION AND SUGGESTIONS

This research was conducted to survey the ambivalent sexism and sex roles of the female students in Kocaeli University Sports Sciences Faculty. Besides, this research aimed to review whether the ambivalent sexism and sex roles of the female students differ in terms of various variables. There is a significant difference between ASI and its sub-dimensions; there is also a significant difference between BCRE and its sub-dimension levels. However, there was not found a significant difference between ASI and its sub-dimensions; BCRE and its sub-dimension levels based on the sporting status. There was not found a significant difference in hostile sexism, conservative sexism and masculinity sub-dimensions based on the department variable. The effeminacy sub-dimension is significantly higher in female students who study in the coaching department in comparison to the female students who study in the recreation department. There was not found a significant difference in masculinity, effeminacy and hostile sexism sub-dimensions based on the sporting year variable. Conservative sexism of female students who have played sports for 7-9 years is significantly higher in comparison with the female students who have played sports for 1-3 years. We can say at the end of the research that the masculinity sex role is higher in a female who play team sports than other female groups. It can be mentioned that the females who play sports have a flexible personality so as to display effeminacy and masculinity characteristics. Sport is a factor that increases the ambivalent and sex role in the individuals.

As a consequence the following suggestions can be put forward;

- The personality profiles of females who play sports can be analyzed; the groups in different socio-economic level can be analyzed as well.
- I emphasize that there is the need for more studies to obtain a clear result on the ambivalent and sex roles.
- About the limitations, the findings relating to the university student cannot be generalized for the student population out of the university. University students are an important population; because there is a good chance to regularly encounter with people who are absolutely masculine or feminine.

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