Evaluation of the Gender Perception of Students of the Faculty of Medicine; a Public University Faculty of Medicine in Western of Turkey

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ABSTRACT

Objective: The aim of the study was to determine the level of perception of gender in medical school students and to examine some variables that are thought to be related.

Methods: Study was carried at a public university faculty of medicine in 2018-2019 academic year and it consists of 1213 students without attendance problems and 1023 (84.3%) students were reached. The questionnaire form included some sociodemographic characteristics of the individuals, some variables thought to be related with gender perception and questions of the Perception of Gender Scale.

Results: In this study, medical students' gender perception levels and variables affecting it were evaluated and it was concluded that the students' gender perceptions were positive.

Conclusion: Medical faculty students should be role models in society's adoption of equality by looking at all practices from a gender equality perspective.

Keywords: Gender of perception, Faculty of medicine students, Türkiye

1. INTRODUCTION

Sex is the physiological and biological feature of the individual as a female or male (1). Gender, on the other hand, is defined as stereotyped roles, behaviors, activities, qualifications and opportunities that society sees suitable for men and women according to the World Health Organization (WHO) (2). While sex differences are inherent features of female and male, gender differences are learned, gained in the process of socialization and vary from individual to individual, intercultural and over time (3,4).

Gender, in other words, is the meaning and expectations of society and culture to be men and women; It is about how society sees male and female, thinks and how they expect them to act (3,5). Gender roles also include roles deemed appropriate for women and men in relation to these expectations, and these are transformed into stereotypes by society (3). Men are expected to be independent, objective, aggressive, strong, logical, brave, unable to express their feelings easily, show themselves in the public area and bring

home the bacon. Women are expected to be docile, sensitive, dependent, subjective, obedient, able to express their feelings easily, do housework and service baby-sitting (1,3,6,7). When individuals or groups do not comply with established gender norms, roles, responsibilities or relationships, they often face stigma, discriminatory practices or social exclusion (8).

Gender-based values affect the basic determinants of health and equality such as nutrition, hygiene, awareness of health problems, health-seeking behavior and access to healthcare services as well as affecting people's daily lives (9). As a result of social norms, risky behaviors are more common in men. For example, deaths in traffic accidents are higher in males due to smoking, alcohol use and risky driving. In addition, the job areas where men work are more risky because work-related diseases are more common in men (1,9,10). However, the negative consequences of gender discrimination in women are observed more than men in every period of life. Violence against women in norms that value male authority and

privilege, deprivation of women from education and other social resources that improve and protect health, gender selective abortions significantly increase women's health risks (8,9).

Gender equality is the basic human right and increases economic and social development in all areas (11,12). United Nations ''5th Sustainable Development Goal'', is mentioned that women-girls should be empowered to achieve gender equality. It is aimed to accelerate the progress towards gender equality in all social areas (at home, workplace, health and educational attainment, political participation, leadership and economy) (12,13). It is reported by The European Observatory on Health Systems and Policies and the World Health Organization that gender inequality causes an important public health problem by depriving women of their economic, social, political rights and access to education, training and health services (14,15). Considering the fact that they are in constant contact with the society and the effects of gender on health, physicians also have a great role in achieving this goal. It is important to evaluate the gender perceptions of medical students, who will become future physicians, to make arrangements for adopting gender equality perceptions and attitudes among physicians. The aim of the study was to determine the level of gender perception in medical school students and to examine some variables that are thought to be related.

2. METHODS

The study is a cross-sectional study conducted between September and December 2018 on students of a public university faculty of medicine in the 2018-2019 academic year. The ethic permission was acquired from Eskisehir Osmangazi University Ethics Committee (Date: 09.10.2018, Protocol number: 25403353-050.99-E.110622). Additionally, necessary administrative permissions were obtained from the Diaconate of the Faculty of Medicine.

Study was carried at a public university faculty of medicine in 2018-2019 academic year and it consists of 1213 students without attendance problems and 1023 (84.3%) students were reached.

In this study, a questionnaire form was prepared using the literature for data collection (16-18). The questionnaire form included some sociodemographic characteristics of the individuals (age, gender, maternal education status, etc.), some variables thought to be related with gender perception and questions of the Gender Perception Scale.

In order to collect data in the study, verbal consent was obtained from those who accepted to participate in the study after the students were informed about the research subject and purpose by going to the classes at appropriate days and hours. The questionnaire forms were distributed to students and they were filled in by them under observation. This process took approximately 15-20 minutes.

The Perception of Gender Scale (PGS) is a self-report assessment tool designed to evaluate the gender roles and perceptions of individuals. Developed by Altınova and Duyan in 2013, the scale consists of 25 questions in 5-point Likert type. For each opinion stated in the items, individuals are asked to state their opinions as "I totally agree" "5", "I agree" "4", I am undecided "3", I do not agree "2", and I totally disagree "1". Items 2, 4, 6, 9, 10, 12, 15, 16, 17, 18, 19, 20, 21, 24 and 25 are negative and calculated in reverse. Accordingly, the score that can be obtained from the scale is between 25 and 125, and it is accepted that the gender perception changes positively as the score increases (16).

Family income levels of the students were evaluated as 'low', 'moderate' and 'high' according to their own statements.

The most played game as a child was categorized as "baby-house game", "car game" and "other". In the other category; There were outside games, football, puzzles and computer games.

Family attitude was categorized as "democratic" and "other". In the other category; authoritarian, indifferent, overly permissive, inconsistent, overprotective, perfectionist family attitudes were present.

The person who made the decisions in the family was categorized as "parents together" and "other". The other category included mother, father, family elders and other individuals.

The data obtained in the study were computerized and evaluated using SPSS version 15.0. The scores from PGS was evaluated regarding normal distribution, and the Kolmogorov-Smirnov normal distribution test and graphs were used to show that the scores taken from both scales were normally distributed. Mann-Whitney U and Kruskal-Wallis tests, (Bonferroni correction) and multiple linear regression analyses were used. The logarithms of the scores were taken to apply linear regression. A multivariate linear regression model was performed to determine the variables affecting the PGS scores.

3. RESULTS

Of the 1023 students who constituted the study group, 52.8% (540) were female and 47.2% (483) were male. The ages of the study group ranged from 17-30, with a mean of 21.36 ± 2.06 years. The scores obtained from PGS ranged between 32.0 and 125.0, and mean is 108.06 ± 16.57. The scores obtained from the scale were higher in women, those aged 23 and over, and students without siblings, while it was lower in students whose mothers' education level was primary school and below. Students whose father's education level was primary school and below was found to be lower than those of university students. Comparison of students' PGS scores according to sociodemographic characteristics is given Table 1.

Table 1. Comparison of students' PGS scores according to sociodemographic characteristics

Sociodemographic characteristics	n (%)	PGS scores Median (min.-max.)	Kw/z ; p
Sex			
Female	540 (52.8)	117.0 (32.0-125.0)	**11.788 ; <0.001**
Male	483 (47.2)	105.0 (33.0-125.0)	
Age groups (year)			
17-19	232 (22.7)	113.5 (38.0-125.0)	**6.175 ; 0.046**
20-22	451 (44.1)	114.0 (32.0-125.0)	
23 <*	340 (33.2)	116.0 (33.0-125.0)	
Mothers' education level			
Primary education*	351 (34.3)	110.0 (56.0-125.0)	**29.983 ; <0.001**
High school	283 (27.7)	115.0 (49.0-125.0)	
University	389 (38.0)	116.0 (32.0-125.0)	
Fathers' education level			
Primary education*	185 (18.1)	109.0 (58.0-125.0)	**17.183 ; <0.001**
High school	246 (24.0)	114.0 (38.0-125.0)	
University *	592 (57.9)	116.0 (32.0-125.0)	
Siblings			
No	107 (10.5)	117.0 (32.0-125.0)	**2.843 ; 0.004**
Yes	916 (89.5)	114.0 (33.0-125.0)	
Family type			
Nucleer	928 (90.7)	115.0 (32.0-125.0)	**13.394 ; 0.001**
Expended *	67 (6.5)	108.0 (56.0-125.0)	
Broken	28 (2.7)	120.0 (49.0-125.0)	
Socioeconomic level			
High	332 (32.5)	116.0 (32.0-125.0)	**17.714 ; <0.001**
Moderate	659 (64.4)	114.0 (38.0-125.0)	
Low	32 (3.1)	103.0 (49.0-125.0)	

In the study group, those whose family attitude was democratic, those who spent most of their lives in the province, those who did not live with grandparents such as

grandparents until the age of 18, those who played more baby-house when they were child, those who reported that the parents make decisions together in the family, and the students who took their mother as a role model, the gender perception was more positive. Comparison of students' PGS scores according to some variables thought to be related to the gender perception is given in Table 2.

Multiple linear regression analysis results showing the variables related to the scores of the students in the study group obtained from the PGS is given in Table 3.

Table 2. Comparison of students' Perception of Gender Scale scores according to some variables thought to be related to the gender perception

Variables	n (%)	PGS scores Median (min.-max.)	Kw/z ; p
Family attitude			
Democratic	473 (46.2)	116.0 (33.0-125.0)	**3.992 ; <0.001**
Other	550 (53.8)	113.0 (32.0-125.0)	
Region of the majority of life			
Province *	718 (70.2)	116.0 (32.0-125.0)	**21.446 ; <0.001**
District	257 (25.1)	111.0 (33.0-125.0)	
Town	48 (4.7)	107.5 (59.0-124.0)	
Living with grandparents until the age of 18			
No	760 (74.3)	115.0 (33.0-125.0)	**3.732 ;<0.001**
Yes	263 (25.7)	110.0 (32.0-125.0)	
Most played game when child			
Baby-house game *	391 (38.2)	117.0 (38.0-125.0)	**53.356 ; <0.001**
Car game	245 (23.9)	108.0 (32.0-125.0)	
Other	387 (37.8)	113.0 (33.0-125.0)	
How decisions are made in the family			
Parents together	612 (59.8)	116.0 (33.0-125.0)	**4.487 ; <0.001**
Other	411 (40.2)	112.0 (32.0-125.0)	
Role model person			
Mother*	341 (33.3)	117.0 (49.0-125.0)	**30.283 ; <0.001**
Father	325 (31.8)	111.0 (32.0-125.0)	
Other	357 (34.9)	114.0 (33.0-125.0)	

Table 3. Multiple linear regression analysis model of the variables that affect students' Perception of Gender Scale scores

	β (%95 CI)	β (%95 CI)
Sex	-0.055*** (-0.064 – -0.046)	-0.054*** (-0.065 – -0.044)
Age groups	0.0 (-0.007 – 0.006)	
Mothers' education level	0.006 (0.0-0.013)	
Fathers' education level	0.002 (-0.005 – 0.009)	
Sibling	-0.009 (-0.024 – 0.006)	
Family type	-0.008 (-0.019 – 0.004)	
Socioeconomic level	-0.007 (-0.017 – 0.002)	
Family attitude		0.018*** (0.009-0.028)
Where most of life is spent		-0.013** (-0.020 – -0.005)
Living with grandparents until the age of 18		0.017** (0.007-0.027)
Most played toy when child		0.001 (-0.005 – 0.007)
How decisions are made in the family		0.008 (-0.001 – 0.017)
Role model person		-0.002 (-0.007 – 0.004)
R^2:	0.144	0.170
F:	24.445***	29.602***

CI: Confidence Interval, *:p≤0.05, **:p≤0.01, ***:p≤0.001

4. DISCUSSION

The access to healthcare services and the quality of it is not received the same among genders in almost every part of the world due to gender perception (17,18). Therefore, medical doctors having high awareness and displaying positive attitude towards gender perception is considered to be one of the key factors in order for health service distribution to be equal. In this study, medical students' gender perception levels and variables affecting it were evaluated and it was concluded that the students' gender perceptions were positive. Female students, those who didn't live with their grandparents until they were 18, those who lived most of their lives in cities and those whose parents' attitude are democratic had a more positive gender perception.

The amount of studies assessing the gender perception of medical faculty students are very few. In our study group, the gender perception was more positive than the study conducted by Aydin et al. using the same scale on postgraduate individuals (19). Two different studies conducted on medical students in İzmir also reported that the gender perception was equitable and positive (18,20). There are studies suggesting that the gender perception

of university students studying in the health field is more positive compared to the students in other fields (21,22).

Because of the societal role of a mother in a family being undertaking every household chores and bearing with every negative event that happens creates a traditional gender perception for the males of the family (23). In the study, female students' gender perception was more positive than males which was in line with the relevant literature (18,21,22,24).

Individuals' social relationships and environments increase with age, and they interact with more people and gain different perspectives. It is predicted that increasing social relations and changing environment will create a more egalitarian perception of gender apart from the gender perception settled in the society (25-27). In our study, the gender perception of the students over the age of 23 was found to be more positive than the students under the age of 23. In a study conducted on adolescents in the literature, it was reported that individuals' gender perceptions were more positive with increasing age (28). In the studies conducted by Zeyneloğlu and Arıcı on university students, it was reported that there was no difference between age and gender perception (29,30).

It is expected that the level of gender perception of their children will change positively with the increase in the education level of the parents due to reasons such as the increase in the education level of the families, the fact that people with higher education levels are open to new ideas and are not under the cultural influence of the society, and women enter the working life (30-32). In the study, while the gender perception level of those whose mother's education level is primary school or below is lower, the gender perception level of those whose father's education level is university was found to be more positive than those whose mother's education level is primary school and below. Similar result was reported in the study conducted by Arıcı (30). In some studies, it has been reported that as the educational status of the mother increases, the perception of gender changes positively, while there is no relationship between the educational status of the father (31,33). In another study, no relationship was found between the education level of the parents and the perception of gender (34). The different results here may be due to the different cultures of the community in which the study was conducted and the different schools where the students study.

Family is the first social environment individuals live in. Although every part of an individuals' life plays a role in their perception of gender, the family they live with since their birth has the biggest share in it (35). The attitude of the family, which is shaped by the culture and the societal norms in families is one of the major factors affecting the gender perception (17,36). In the study, the students who defined the attitude of their family as democratic was found to have a more positive perception on gender.

It is reported that the place where the individuals spend most of their life affects their predictions against life (37). It has been reported that as the time spent in the urban area increases, the gender perception becomes more egalitarian and positive (35). In the study, students' who spent most of their lives in city centers was found to be gender perception was more positive. Those who live in urban areas had a more positive gender perception in a study conducted in Namibia as well (38). In some other studies however no difference was reported regarding the living place (19,23).

In the study, those who did not live with their grandparents until they were 18 had a more positive gender perception. Living with the elders of the family may have resulted in having a more traditional gender perception due to their influence on children.

It has been determined that the toy preferences of children who adopt the roles assigned to men and women in the society and grow up in families with traditional role-sharing in this way differ in accordance with traditional roles (4). In the study; It was determined that the level of gender perception of the students whose most played games as children were baby-house game were more positive. Similar results are reported in the study of Hupp et al. (39).

In the model obtained as a result of multiple linear regression analysis, it was found that independent variables explain 17 % of the gender perception. Since gender perception is a multi-dimensional concept and highly influenced by the cultural traditions of individuals and the social structure of the environment they live in, it's hard to define and include every factors that possibly affects the gender perception in quantitative studies.

The research being a cross-sectional study resulting with inadequacy on explaining the cause-effect relationship and since it can't be generalized due to including only the medical faculty students, can be considered as the limitations of the study. It has been concluded that more advanced studies and qualitative studies that will provide access to in-depth information are needed to obtain more information on the subject.

5. CONCLUSION

Medical faculty students who will be the healthcare providers of the future should be role models in society's adoption of equality by looking at all practices from a gender equality perspective and shaping stereotypes and attitudes more equitably. The perception of gender of the faculty of medicine students was found to be positive. Sex and the characteristics of the social environment were related to perception of gender. Through the medical education curriculum and the student communities in the faculty, the awareness of students about the perspective of gender perception must be increased and this process should be sustained after the graduation with briefings during their educations. In addition to that, a cooperation should be created between faculty members and students.

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