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DETERMINING THE PERCEIVED LEVEL OF ACCOMPLISHMENT OF PROGRAM OUTCOMES BY GRADUATES OF THE HEALTH MANAGEMENT DEPARTMENT: A FOUNDATION UNIVERSITY EXAMPLE

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Abstract

This study aims to evaluate the alignment between the competencies gained by graduates of the Health Management Undergraduate Program at Istanbul Sabahattin Zaim University and the program objectives. Data were collected through an online survey from the population of students who graduated in 2016 and beyond, and the analyses were conducted using SPSS 25 software. The program objectives are grouped under three main dimensions: Social Responsibility and Ethical Awareness, Organizational Management and Strategic Thinking, and Effective Communication and Critical Thinking. These dimensions comprehensively reflect the graduates' competencies and explain 66.19% of the total variance. The findings reveal that as the graduation year becomes more recent, the job search duration shortens, and there is a positive relationship between the use of educational knowledge and job satisfaction. While gender and educational level caused differences in certain competencies, male graduates scored higher than females in communication and critical thinking skills. The results indicate that the Health Management program effectively equips its graduates to be professionally and socially competent individuals.
Keywords: Health management, program outcomes, graduate perceptions, competency assessment, education program evaluation

1. Introduction

The provision of healthcare services today is not limited to medical knowledge and skills, but also encompasses multidisciplinary areas such as effective management, strategic planning, financial sustainability, and human resources management. Among the main challenges facing healthcare systems in the 21st century are rising healthcare costs, an ageing population, the spread of chronic diseases, adaptation issues brought about by rapid digitalisation, and inequalities in access to healthcare services. This complex structure necessitates that healthcare services be addressed professionally not only in terms of their medical dimension but also in terms of their organisational, financial, and managerial processes (WHO, 2007). In this context, the concept of healthcare management comes to the fore. Health management refers to the scientific principles governing the planning, organisation, direction, financing, and evaluation of healthcare institutions (Kavuncubaşı, 2021).

Health management is an interdisciplinary field that encompasses not only administrative tasks but also many areas of expertise, such as strategic decision-making, human resource management, integration of information systems, quality and patient safety in healthcare, budgeting, and financial sustainability, enabling healthcare institutions to operate effectively, efficiently, and ethically. Therefore, healthcare managers must not only have knowledge of management techniques but also sufficient knowledge and skills in the fields of business, economics, law, technology, and social sciences. Healthcare managers also aim to understand the complex structure of healthcare systems, optimise resource use, and improve patient satisfaction and service quality (Aydın and Karahan, 2019).

Health Management Bachelor's Degree Programmes, established to ensure the continuous development and sustainability of the healthcare system, are higher education programmes designed to train professionals who can provide effective, efficient, and ethically-based management of the healthcare system. These programmes provide theoretical and practical training in areas such as health insurance, health economics, health law, quality in health services, marketing in health services, strategic management, human resources management, and health informatics (SAYÇEP, 2017). In Turkey, individuals who graduate from these programmes are designated as 'Health Managers' by the Higher Education Council (YÖK) under a decision dated 26 August 1998 (YÖK, 1998).

The management of healthcare institutions is a scientific field with a 105-year history worldwide and a 54-year history and depth in Turkey. This scientific field continues to exist with nearly 500 undergraduate and graduate education programmes worldwide. In Turkey, academic studies in the field of healthcare management have evolved into a specialised field where scientific knowledge is accumulated, academics are trained, and regular journals and books are published (Bulut et al., 2023). Health management education in Turkey began in 1963 with the establishment of the School of Health Administration under the Ministry of Health. This institution joined Hacettepe University in 1970 and was renamed the 'School of Hospital Administration.' In 1975, it was renamed the 'School of Health Administration' with the opening of its undergraduate programme. As of 2007, the Department of Health Administration (later renamed Health Management) was affiliated with the Faculty of Economics and Administrative Sciences at Hacettepe University (Karaşin and Tatlı, 2022).

The development of health management education in Turkey gained momentum after the Health Transformation Programme launched in 2003, with the primary objectives of more effective management of health institutions, increasing patient satisfaction, raising quality standards, and rational use of resources (Tatar et al., 2011). These developments have increased the demand for healthcare managers and necessitated the updating of programme content in healthcare management departments.

With the changes in the Health Management Programme, there are currently 109 universities offering Health Management and 56 universities offering 75 Health Institution Management Programmes in Turkey (YÖK, 2025; Kaya et al., 2022). These programmes aim to train qualified managers needed by the healthcare sector. In line with this objective, in 2017, 39 academics, association/union/guild presidents, and student group/representatives came together with academic studies conducted in Turkey to create the National Core Education Programme for Health

Management (SAYÇEP, 2017), which details the fundamental topics and assessment and evaluation methods of the health management programme was established (Bulut et al., 2023).

The Health Management Undergraduate Programme at Istanbul Sabahattin Zaim University is designed in line with the needs arising in the management of the health sector. It aims to train ethical, technology-savvy, innovative, and entrepreneurial health managers who are committed to facilitating access to health services for individuals and society. This study aims to evaluate the competencies gained by graduates of the Istanbul Sabahattin Zaim University Health Management Undergraduate Programme in line with the programme's learning outcomes. In line with the defined objective, the structural alignment between the outcomes and the programme's general objectives will be analysed to reveal the contribution of health management education to the professional competencies of graduates. The learning outcomes were determined based on the National Core Education Programme for Health Management (SAYÇEP, 2017), and the evaluation process aims to analyse the impact of programme outcomes on educational quality and graduate success.

2. Methods or experimental section

2.1. Research design

This study aims to evaluate the competencies acquired by graduates of the Health Management Undergraduate Programme at Istanbul Sabahattin Zaim University in line with the programme outcomes and to analyse the alignment between these outcomes and the overall objectives of the programme.

2.2. Research population and sample

The Health Management Department at Istanbul Sabahattin Zaim University began accepting students in 2016 and has graduated 126 students at the undergraduate level. In this study, the aim was to reach the entire population, and the condition for inclusion in the research sample was graduation from the undergraduate programme.

2.3. Data collection

Graduates were reached through an online survey, and their consent was obtained by stating that participation was voluntary. In this context, a group was formed through digital platforms where graduates communicate, information about the survey form was provided, and they were invited to participate in the study.

2.4. Data collection tools

The survey form used in this cross-sectional and descriptive study was developed by the Health Management Department Accreditation Board. The first section of the survey includes a demographic information form consisting of 15 questions aimed at determining the socio-demographic characteristics of the participants. In the second section, the gains obtained within the scope of the programme outcomes were evaluated using a five-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree).

2.5. Analysis of research data

The data obtained in the study were analysed using the IBM SPSS 25 software package. The normality of the data set was tested, and for variables showing normal distribution, One-Way Analysis of Variance (ANOVA) and Independent Samples t-Test were applied to determine the differences between groups. Kendall's Tau-b correlation coefficient was used to examine the relationships between variables. Kendall's Tau-b analysis is preferred to measure the relationship between ordinal or small-scale continuous variables (Altaş et al., 2012). Additionally, the small size of the data set was considered an important factor supporting the use of this method. In the study, department programme outcomes were measured using a five-point Likert scale, and these data were compared with programme objectives. Factor analysis was applied to determine which objectives the programme outcomes aligned with and to analyse their contribution to the overall structure of the programme. This allowed the consistency between programme outcomes and the identified educational objectives to be statistically tested.

2.6. Ethical aspects of the research and permissions

Ethical approval for conducting the research was obtained from the Ethics Committee of Istanbul Sabahattin Zaim University under number E-20292139-050.04-2400041791.

3. Results

Based on the data obtained in the research, the demographic characteristics of the participants, their gains within the scope of the programme outcomes, and their alignment with the programme objectives were evaluated. In addition, the relationships between the variables were examined and the statistical analysis results were interpreted.

3.1. Descriptive statistics

The findings regarding the demographic characteristics of the participants are presented in Table 1.

Table 1. Demographic characteristics of participants

Variables		**N**	**%**
Gender	Woman	55	85,9
	Male	9	14,1
Age range	22-24	29	45,3
	25-27	31	48,4
	28-39	4	6,3
Education	License	50	78,1
	Master's Degree	14	21,9
Did you choose the Department of Health Management willingly?	Yes	44	68,8
	No	20	31,3
Are you satisfied with your choice of Health Management as a profession?	Yes	42	65,6
	No	22	34,4
Are you satisfied with the education you received at IZU Health Management Department?	Yes	59	92,2
	No	5	7,8
Do you use the knowledge and skills you acquired at IZU Department of Health Management in your working life?	Yes	41	64,1
	No	23	35,9

What year did you graduate from the Health Management program?	2019-2021	18	28,1
	2022-2024	46	71,9
How long did you look for a job after graduation?	0-7 months	40	62,5
	8 months and above	22	34,4
	Did not call because he did not want to work	2	3,1
Are you currently working	Yes	45	70,3
	No	19	29,7
Are you satisfied with your job?	Yes	35	54,7
	No	10	15,6
	Not working	19	29,7
What is the nature/type of the institution you work for?	Special	37	54,0
	Public	4	6,3
	Foundation	4	6,3
	Not working	19	29,7
What is the department/division you work in?	Leaving empty	21	32,8
	Patient Rights	3	4,7
	Purchasing	4	6,3
	HRM	5	7,8
	Corporate Communications and Promotion	2	3,1
	Administrative units	16	25,0
	Other in-sector	8	12,5
	Other non-sectoral	5	7,8
Total		**64**	**100**

A total of 64 graduates participated in the study. When examining the gender distribution of the participants, it was found that 85.9% were female and 14.1% were male. Looking at the age distribution, the largest group was made up of graduates aged 25-27 (48.4%), followed by those aged 22-24 (45.3%). The percentage of participants aged 28-39 was 6.3%. Of the participants, 78.1% have a bachelor's degree, while 21.9% have a master's degree. The percentage of those who consciously chose the Health Management department is 68.8%, while 31.3% stated that they did not make a conscious choice in their department selection.

When assessing professional satisfaction, 65.6% of participants expressed satisfaction with working in the field of Health Management, while 34.4% reported dissatisfaction with their career choice in this field. Similarly, satisfaction with the education received at the Health Management Department of Istanbul Sabahattin Zaim University is quite high, with 92.2% of graduates stating that they are satisfied with the education provided.

When examining the participants' use of the knowledge and skills they acquired during their education in their professional lives, 64.1% stated that they actively use their acquired skills in their work life. On the other hand, 35.9% stated that the use of the knowledge and skills acquired in education is limited in their work life.

When looking at the distribution of participants' graduation years, 71.9% graduated between 2022 and 2024, while 28.1% graduated between 2019 and 2021. In terms of job search duration, 62.5% of participants stated that they found a job within 0-7 months after graduation, 34.4% stated that they searched for a job for 8 months or longer, and 3.1% stated that they did not search for a job because they did not want to work.

70.3% of participants were actively working, while 29.7% stated that they were not working in any job. 54.7% of working participants stated that they were satisfied with their jobs, while 15.6% stated that they were not satisfied

with their current jobs. When the type of institution where the participants worked was evaluated, 54.0% worked in the private sector, 6.3% in the public sector, and 6.3% in non-profit organisations. 59.4% of the graduates who participated in the survey worked in different departments in the health sector. The percentage of those working in non-health sectors was 7.8%. A 3.1% segment of employees did not provide information about the sector. This finding indicates that the majority of graduates are employed in fields related to the healthcare sector, but a portion have moved into different sectors, and a certain group has not yet entered the workforce.

3.2. Factor analysis of programme outcomes

The main objective of the programme is to ensure that graduates acquire the necessary knowledge, skills and competencies in the field of health management and become individuals who are capable of establishing, managing and developing businesses; who are innovative, entrepreneurial and able to use modern technologies effectively. However, in order to determine the level of achievement of graduates in terms of program outcomes in line with this general objective, an evaluation was conducted using survey questions structured with a five-point Likert scale. In the study, factor analysis was applied to determine the achievements obtained within the scope of program outcomes, and program objectives were redefined under three main headings based on graduates' responses. The results of the factor analysis are presented in Table 2.

Table 2. Factor analysis

		Factor Loading	Explained Variance (%)	Reliability	Mean
Social Responsibility and Ethical Awareness	PÇ11. In addition to the areas in which they are assigned, they are aware of the importance of universal social rights, social justice, quality, protection of environmental and cultural values, and occupational health and safety.	0,827	28,128	0,867	4,35
	PÇ7. Can use information technologies at a level sufficient to enter and analyse data in the areas in which they are assigned.	0,745			
	PÇ8. Behaves in accordance with business and social ethical values in the areas in which they are assigned.	0,733			
	PÇ9. Analyses and manages relationships with stakeholders in the areas in which they are assigned.	0,646			
	PÇ 12. Identifies and analyses problems in the areas in which they are assigned and proposes solutions.	0,631			
	PÇ6. Is open to professional sharing and solidarity in the areas in which he/she is assigned to work.	0,549			
	PÇ13. Conducts independent research and work in the areas in which he/she is assigned to work, contributes to projects and takes responsibility.	0,533			
Organisational	PÇ3. Can determine the vision, goals and objectives of the organisation or department in the areas in which he/she is assigned to work.	0,889	28,061	0,827	4,23
	PÇ2. Can work in a team in the areas in which he/she is assigned to work and shares his/her knowledge with the team.	0,704			

	PÇ1. Is aware of interdisciplinary interaction in relation to the tasks assigned to them.	0,673			
	PÇ10. Makes original and constructive suggestions in the areas assigned to them.	0,660			
Effective Communicati	PÇ5. Can convey their knowledge and suggestions in the areas assigned to them using all kinds of communication tools, and can do so using at least one foreign language when necessary.	0,777	9,997	0,320	3,81
	PÇ4. Questions the information they have in the areas assigned to them.	0,620			
	TOTAL		66,185	0,872	4,13

Factor analyses were performed using the principal component method and Varimax rotation technique. The adequacy of the sample for analysis was evaluated using the Kaiser-Meyer-Olkin (KMO) test and Bartlett's sphericity test. The KMO value was 0.776, indicating that the sample was adequate for factor analysis. Additionally, the Bartlett sphericity test ($\chi^2 = 489.353$, df = 78, $p < 0.001$) was found to be significant, indicating that the relationships between the variables were suitable for factor analysis.

The results of the factor analysis were grouped into three main dimensions and explained 66.19% of the total variance. The dimension with the highest explanatory power is Social Responsibility and Ethical Awareness, explaining 28.13% of the variance. The highest factor loading within this dimension is PÇ11 (0.827), which reflects awareness of the universality of social rights, social justice, quality, protection of environmental and cultural values, and occupational health and safety. It was observed that graduates have a high level of social responsibility awareness and commitment to ethical values (Mean = 4.35). Additionally, it was determined that competencies such as data analysis skills (PÇ7, 0.745) and compliance with business ethics principles (PÇ8, 0.733) also fall under this dimension.

The second dimension, named Organisational Management and Strategic Thinking, has an explanatory power of 28.061%. The highest factor loading was identified as PÇ3 (0.889), which represents the competency of setting organisational vision, goals, and objectives. The average value of this dimension is 4.23, and it includes competencies such as organisational planning, teamwork PÇ2 (0.704), and facilitating interdisciplinary interaction PÇ1 (0.673).

The third dimension, Effective Communication and Critical Thinking, has an explanatory power of 9.997% and covers information sharing and critical thinking skills. The highest factor loading is PÇ5 (0.777), which refers to the ability to convey one's knowledge base using different communication tools, including foreign languages when necessary. The average value of this dimension is calculated as 3.81, revealing the extent to which the programme outcomes support communication competence and critical thinking skills.

Overall, the factor analysis findings show that the programme outcomes are structured in line with the three defined core areas and that graduates acquire these competencies.

Table 3. Program objectives derived from factor analysis

Amaçlar	
Objective 1	Total Responsibility and Ethical Awareness: To train health managers who embrace the concepts of social rights and justice, act in accordance with business and social ethical rules, can establish effective relationships with stakeholders, have gained decision-making skills based on data analysis, and prioritise social **responsibility, analytical thinking, cooperation and professional development** while adhering to ethical values.
Objective 2	Organisational Management and Strategic Thinking: To train health managers who have the capacity to establish, manage and develop businesses for themselves and others in the health sector; who are **capable of strategic thinking, leadership, innovative suggestions and teamwork.**
Objective 3	Effective Communication and Critical Thinking: To train health managers who can question, analyse, think critically and communicate **effectively by using scientific** methods effectively.

The mean, standard deviation, skewness, and kurtosis values of the specified objectives were examined to determine the tests to be performed to assess their suitability for normal distribution. Skewness and kurtosis coefficients close to 0 within the ±1 range and indices obtained by dividing these coefficients by their standard errors falling within the ±2 limits are accepted as indicators of the presence of a normal distribution (Hair et al., 2014; Tabachnick and Fidell, 2010). The skewness and kurtosis values of the Social Responsibility and Ethics dimension (-,102-,450) and the Effective Communication and Critical Thinking dimension (,255,-,703) are within this range. Additionally, since the arithmetic mean, mode, or median of the dimensions on the scale are close to each other, it was decided to conduct appropriate tests for normal distribution, taking into account the normal distribution criterion (Demir et al., 2016).

3.3. Intergroup difference tests

To determine the differences between groups based on participant characteristics, the Independent Samples t-Test and One-Way Analysis of Variance (ANOVA) were applied. The Independent Samples t-Test was preferred to compare the mean differences between two groups, while the ANOVA test was used to evaluate the differences between the means of three or more groups. Through these analyses, the relationships between graduates' demographic characteristics, their satisfaction with education and professional experience, and programme outcomes were statistically examined. The results obtained are presented in Table 4.

Table 4. Difference tests according to participant characteristics

		Social Responsibility and Ethical Awareness		Organisational Management and Strategic Thinking		Effective Communication and Critical Thinking	
		$\bar{x} \pm SS$		$\bar{x} \pm SS$		$\bar{x} \pm SS$	
Gender	Male	4,47±0,38	$p>0,05$	4,55±0,39	$p>0,05$	4,33±0,70	$p<0,05$
	Women	4,33±0,47		4,18±0,54		3,71±0,65	
Educational Status	Licence	4,29±0,45		4,14±0,48		3,74±0,66	
	Master's Degree	4,58±0,44	$p<0,05$	4,57±0,60	$p<0,01$	4,03±0,74	$p>0,05$
Selecting a department by choice	No	4,32±0,54	$p>0,05$	4,22±0,58	$p>0,05$	3,87±0,77	$p>0,05$
	Yes	4,37±0,42		4,23±0,52		3,77±0,65	
Employment Status	No	4,20±0,27	$p<0,05$	4,07±0,51	$p>0,05$	3,71±0,58	$p>0,05$
	Yes	4,41±0,51		4,30±0,54		3,84±0,72	
Job satisfaction	No	4,31±0,46	$p>0,05$	4,30±0,46	$p>0,05$	4,05±0,59	$p>0,05$
	Yes	4,44±0,52		4,30±0,57		3,78±0,76	
Satisfaction with choosing Health Management as a profession	No	4,31±0,50		4,13±0,59		3,77±0,75	
	Yes	3,37±0,44	$p>0,05$	4,28±0,51	$p>0,05$	3,82±0,66	$p>0,05$
Satisfaction with the education received	No	3,82±0,48	$p>0,05$	3,75±0,84	$p>0,05$	3,50±0,50	$p>0,05$
	Yes	4,39±0,43		4,27±0,49		3,83±0,69	
Using acquired knowledge and skills in working life	No	4,19±0,45	$p<0,05$	4,21±0,47	$p>0,05$	3,37±0,61	$p>0,05$
	Yes	4,44±0,44		4,24±0,58		3,84±0,72	
What is the nature/type of the institution you work for?	Private	4,43±0,51		4,31±0,57		3,90±0,75	
	Public	4,25±0,63	$p>0,05$	4,31±0,55	$p>0,05$	3,75±0,64	$p>0,05$
	Foundation	4,42±0,49		4,12±0,14		3,37±0,47	

In analyses conducted according to gender, it was determined that the average scores of male participants in the Effective Communication and Critical Thinking dimensions (4.33±0.70) were significantly higher than those of female participants (3.71±0.65) ($p<0.05$). However, no significant difference was found between genders in the dimensions of Social Responsibility and Ethical Awareness ($p>0.05$) and Organisational Management and Strategic Thinking ($p>0.05$).

When differences were examined according to educational status, it was observed that individuals with postgraduate education had significantly higher scores in the dimensions of Social Responsibility and Ethical Awareness (4.58±0.44, $p<0.05$) and Organisational Management and Strategic Thinking (4.57±0.60, $p<0.01$) while no significant difference was found in the Effective Communication and Critical Thinking dimension based on educational status ($p>0.05$). This finding indicates that individuals with a master's degree have a higher awareness of ethical awareness and organisational management skills.

In analyses conducted based on the variable of voluntarily choosing the department, no significant difference was found in any dimension ($p>0.05$). Individuals who voluntarily chose the department and those who did not have similar scores in terms of programme outcomes.

In analyses conducted in terms of employment status, employed graduates scored significantly higher (4.41±0.51) than unemployed graduates (4.20±0.27) in the Social Responsibility and Ethical Awareness dimension ($p<0.05$). However, no significant difference was found in the other two dimensions (Organisational Management and Strategic Thinking and Effective Communication and Critical Thinking) in terms of employment status ($p>0.05$). This finding suggests that individuals participating in working life show greater development in terms of ethical awareness and social responsibility.

In analyses based on job satisfaction, no significant difference was found in any dimension ($p>0.05$). Similarly, in analyses based on the variable of choosing one's profession voluntarily, no significant difference was found in any dimension ($p>0.05$). When looking at the satisfaction with education variable, graduates who were satisfied with their education (4.39±0.43) scored higher than those who were dissatisfied (3.82±0.48) in the Social Responsibility and Ethical Awareness dimension, but the difference was not statistically significant ($p>0.05$). No significant differences were observed in the other two dimensions.

In the difference analyses according to the variable of the use of acquired knowledge and skills in working life, graduates who stated that they used their knowledge and skills in working life (4.44±0.44) were found to have significantly higher scores in the Social Responsibility and Ethical Awareness dimension compared to graduates who stated that they did not use them (4.19±0.45) ($p<0.05$). No significant difference was found in the other two dimensions ($p>0.05$). Analyses based on the nature of the institution where the task was performed showed no significant difference between the private sector, public sector, and foundation institutions in any of the three dimensions ($p>0.05$). However, graduates working in the private sector were found to have higher scores in the Social Responsibility and Ethical Awareness dimension (4.43±0.51) compared to graduates working in the public sector (4.25±0.63).

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The findings indicate that variables such as educational level, employment status, and the use of acquired knowledge and skills in the workplace create significant differences in programme outcomes.

3.4. Relationships between programme outcomes, objectives, and participant characteristics

The relationships between programme outcomes, programme objectives, and participants‘demographic characteristics were examined using Kendall's Tau-b correlation analysis. This analysis determines the direction and strength of the variables, revealing the connections between graduates’ programme gains and their individual characteristics. The findings are presented in Table 5.

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Tablo 5. Relationships between programme outcomes, objectives, and participant characteristics

	Age	Gender	Education	Ilob search duration	Year of graduation	Satisfaction with education	use of educational information	job satisfaction	Employment status	Voluntary choice of department	PÇ1	PÇ2	PÇ3	PÇ4	PÇ5	PÇ6	PÇ7	PÇ8	PÇ9	PÇ10	PÇ11	PÇ12	PÇ13	Objective 1	Objective 2	Objective 3
Age	1,000																									
Gender	-,065	1,000																								
Education	,416**	-,221	1,000																							
Job search duration	,042	,215	-,140	1,000																						
Year of graduation	-,633**	-,027	-,265*	**-,298****	1,000																					
Satisfaction with education	-,024	-,118	-,128	-,180	,103	1,000																				
Use of educational information	-,157	-,116	,081	-,099	**,282***	**,267***	1,000																			
Job satisfaction	-,215	-,198	-,015	-,192	**,385****	,280*	**,418****	1,000																		
Employment status	,120	-,066	,096	-,123	-,001	-,062	,226	,178	1,000																	
Voluntary choice of department	-,129	,115	-,296*	-,105	**,254***	**,306***	,057	,151	-,143	1,000																
PÇ1	,042	-,057	,203	-,135	,126	,164	,207	,250*	,067	,065	1,000															
PÇ2	,304**	-,334**	,393**	-,208	-,117	,193	-,028	,073	,240*	,002	,441**	1,000														
PÇ3	,345**	-,217	,458**	-,264*	-,175	,189	-,072	,001	,161	-,016	,368**	,692**	1,000													
PÇ4	,107	-,316**	,390**	-,249*	,031	,181	,148	,195	,141	,063	,298*	,484**	,515**	1,000												
PÇ5	,058	-,199	,011	-,151	-,009	,050	,009	-,072	,047	-,122	,145	,138	,117	,225*	1,000											
PÇ6	-,042	-,189	,224	-,335**	,192	,185	,296*	,175	,229	,062	,575**	,423**	,416**	,451**	,076	1,000										
PÇ7	,120	-,105	,106	-,180	-,071	,305*	,214	-,009	,231	,180	,248*	,363**	,274*	,329**	,176	,474**	1,000									
PÇ8	,109	,037	,081	-,245*	-,003	,335**	,178	,021	,023	,154	,424**	,404**	,468**	,245*	,065	,553**	,546**	1,000								
PÇ9	,097	-,117	,169	-,268*	-,018	,287*	,114	-,034	,108	,041	,570**	,465**	,466**	,315**	,142	,652**	,621**	,675**	1,000							
PÇ10	,134	-,192	,228	-,302**	-,016	,164	,103	,057	,133	-,050	,452**	,493**	,560**	,311**	,107	,532**	,490**	,497**	,803**	1,000						
PÇ11	,124	-,032	,123	-,325**	-,006	,143	,115	-,007	,271*	,036	,356**	,436**	,353**	,139	,175	,444**	,543**	,577**	,601**	,594**	1,000					
PÇ12	,136	-,229	,348**	-,375**	,013	,165	,135	,050	,331**	-,190	,422**	,538**	,659**	,307*	,223*	,538**	,397**	,567**	,650**	,725**	,703**	1,000				
PÇ13	,023	-,064	,363**	-,314**	,011	,198	,183	,133	,171	-,119	,440**	,451**	,454**	,281*	,065	,472**	,355**	,482**	,535**	,572**	,551**	,717**	1,000			
Objective 1	,071	-,112	**,221***	**-,321****	,019	**,246***	,205	,027	,174	,014	**,477****	**,474****	**,473****	**,302****	,124	**,648****	**,649****	**,689****	**,752****	**,672****	**,639****	**,707****	**,680****	1,000		
Objective 2	**,215***	**-,225***	**,369****	**-,261****	-,062	,145	,067	,098	,193	-,033	**,583****	**,775****	**,729****	**,444****	,134	**,542****	**,424****	**,511****	**,656****	**,746****	**,522****	**,678****	**,556****	**,658****	1,000	
Objective 3	,081	**-,251***	,137	**-,216***	,026	,114	,065	,022	,074	-,054	**,228***	**,271***	**,255***	**,522****	**,864****	,208	**,237***	,139	**,220***	,172	,176	**,258***	,140	,193	**,247***	1,000

**$p<0,01$;*$p<0,05$

*

Table 5 shows the relationship between graduates' programme outcomes, age, education level, job search duration, purpose, and satisfaction. The analysis revealed a statistically significant negative correlation between graduation year and job search duration (r=-0.298, p <0.01). At the same time, a positive and statistically significant relationship was found between the use of educational information (r = 0.282, p <0.05), professional satisfaction (r =0.385, p <0.01) and graduates' voluntary choice of department (r =0.254, p <0.05). Furthermore, a positive correlation was found between voluntarily choosing the department and level of satisfaction with education (r = 0.306, p < 0.01) and using educational knowledge (r = 0.267, p < 0.01). Furthermore, a statistically significant positive relationship was found between the use of educational knowledge and participants' professional satisfaction (r = 0.418, p < 0.01).

The study examined the relationship between programme outcomes and other variables. According to the results of the analysis, a statistically significant positive relationship was found between Programme Objective 1 (Social Responsibility and Ethical Awareness) and educational level (r = 0.221, p < 0.05) and participants' satisfaction with education (r = 0.246, p < 0.05), while a negative relationship was found with job search duration (r = -0.321, p <0.01) was identified. Objective 1 (Social Responsibility and Ethical Awareness) was found to have a positive correlation with PÇ6 (r = 0.648, p <0.01), PÇ7 (r = 0.649, p <0.01), PÇ8 (r = 0.689, p <0.01), PC9 (r = 0.752, p <0.01), PC10 (r = 0.672, p <0.01), PC11 (r = 0.639, p <0.01), PC12 (r = 0.707, p <0.01) and PC13 (r = 0.680, p <0.01). This result shows that the goal of social responsibility and ethical awareness is directly linked to skills such as professional solidarity, commitment to ethical values, stakeholder management and problem solving.

Programme Objective 2 (Organisational Management and Strategic Thinking) showed significant positive correlations with educational level (r = 0.369, p < 0.01) and age (r = 0.215, p < 0.05), while negative correlations were found between job search duration (r = -0.261, p <0.01) and gender (r = -0.225, p <0.05). When evaluated in terms of programme outcomes, weak correlations were found between PÇ4 (r = 0.444, p <0.01) and PÇ7 (r = 0.424, p <0.01); moderate correlations were found between PÇ1 (r = 0.583, p <0.01), PÇ6 (r = 0.542, p <0.01), PÇ8 (r = 0.511, p <0.01), PÇ9 (r = 0.656, p <0.05), PÇ11 (r = 0.522, p <0.01), PC12 (r = 0.678, p <0.01) and PC13 (r = 0.556, p <0.01) at a moderate level; PC2 (r = 0.775, p <0.01), PC3 (r = 0.729, p <0.01) and PC10 (r = 0.746, p <0.01) showed high-level significant positive relationships. These results indicate that Programme Objective 2 is particularly related to organisational management, strategic thinking, teamwork and innovative thinking skills. Additionally, a moderate (r = 0.658, p <0.01) significant relationship was found between Objective 1 and Objective 2, indicating that these two objectives support each other.

A statistically significant negative relationship was found between Programme Objective 3 (Effective Communication and Critical Thinking) and gender (r = -0.251, p < 0.05) and job search duration (r = -0.216, p < 0.05). In the analysis conducted to determine the relationship between Objective 3 and programme outcomes, PÇ1 (r = 0.228, p < 0.05), PÇ 2 (r = 0.271, p < 0.05), PÇ 3 (r = 0.255, p < 0.05), PC 7 (r = 0.237, p < 0.05), PC 9 (r = 0.220, p < 0.05), and PC 12 (r = 0.258, p < 0.05) showed a weak level of correlation; PC 4 (r = 0.522, p < 0.01) showed a moderate level of correlation; and a high level of statistically significant positive correlation was found between PÇ5 (r = 0.864, p < 0.01). Additionally, a low level (r = 0.247, p < 0.05) statistically significant relationship was found between Objective 2 and Objective 3. This result indicates that individuals with developed effective

communication and critical thinking skills are more successful in sharing information and have high problem-solving skills.

4. Discussion

This study was planned to obtain information about the general situation of health management graduates. In addition, measuring what graduates, who are among external stakeholders, think, how the department curriculum works for graduates, and critically reviewing the department by graduates will help the department education in terms of these concepts (Alaca and Kaba, 2022).

The findings show that educational level and satisfaction with education are positively related to social responsibility and ethical awareness. As the level of education increases, individuals' sensitivity to ethical values and social responsibility increases, and satisfaction with education strengthens this level of awareness. On the other hand, as the time taken to find employment after graduation increases, a decline in ethical awareness is observed among individuals. This situation points to the importance of early employment in terms of ethical development. The findings are consistent with the study conducted by Yıldırım and Uğuz (2012) with Aksaray University students, which showed that business students have a higher ethical awareness than public administration students. Additionally, research conducted by Taş (2018) and Gülmez et al. (2016) has revealed that university students are generally inclined towards ethical values and that this sensitivity increases with the level of education.

The positive relationship between educational level and organisational management and strategic thinking skills (objective 2) shows that individuals with higher levels of education develop greater competence in planning organisational processes, making strategic decisions and leadership. In particular, it is understood that postgraduate education programmes strengthen analytical thinking, organisational structure analysis and long-term planning skills, thereby increasing graduates' strategic thinking capacities. Similarly, the positive correlation between age and Programme Objective 2 indicates that experience and maturity make individuals more competent in team management, problem solving and strategic planning processes. On the other hand, the negative relationship observed between the gender variable and organisational management and strategic thinking skills reveals that female graduates achieve lower gains in these areas compared to males; this situation can be explained by structural and cultural barriers in fields such as health management, where males traditionally occupy more senior management positions (Deemer & Nancy, 2006; Eyüpoğlu, 1999; Mızrahi & Aracı, 2010). Attitudes toward female employees vary significantly depending on the gender of managers, which may lead to situations where male managers exhibit less supportive or more prejudiced attitudes toward female employees. This situation directly negatively affects women's development in organisational management and leadership, thereby reinforcing the perception of the glass ceiling syndrome (Mızrahi & Aracı, 2010). Another study conducted on students at the Faculty of Health Sciences found that positive attitudes towards the compatibility of women's careers with their roles as mothers/spouses were more prevalent among nursing department and female students; it was also determined that class level affected this perception (Kurt and Koştak, 2019). These findings show that female graduates lagging behind in management and strategic thinking skills is not only due to individual competence deficiencies but also due to organisational gender bias, opportunity inequalities, and the reflection of gender norms in self-assessment processes. Despite the high proportion of women in the healthcare sector, the predominance of men in senior management limits women's

leadership experience; women's tendency to rate their own competence more critically leads to their actual performance being perceived as lower. Therefore, both external and internal perception barriers must be overcome through awareness training that strengthens gender equality and leadership skills.

The negative correlation between effective communication and critical thinking skills and gender shows that female graduates rate themselves lower than men in this area. This situation may stem from women's tendency to take a more critical approach than men in their self-assessment processes; as the literature shows that women report lower levels of self-confidence than men, but there is no significant difference between them in objective skill assessments (Furnham, Reeves, & Budhani, 2002; Stanek et al., 2023). Furthermore, studies conducted in Japan (Okoshi et al., 2022), Canada, and Sweden (Wallis et al., 2023) have found that female surgeons perform equally or more successfully than their male colleagues. These findings suggest that women's lack of self-confidence is largely due to gender norms and environmental factors.

In addition, the negative correlation between job search duration and Effective Communication and Critical Thinking skills indicates that as graduates' job search duration increases, their skills decline. The length of unemployment may limit graduates' opportunities to communicate in professional settings, making it difficult for them to gain the practical experience necessary for critical thinking processes (Yorke & Knight, 2006). This situation may be more pronounced for female graduates, as women's labour force participation rates are lower than men's, and potential career barriers they may face in the healthcare sector may negatively affect the development of these skills (Kabeer, 2012; World Economic Forum, 2023). In this context, providing more support to female graduates in areas such as leadership, decision-making, and strategic management in educational programmes can contribute to reducing these skill differences by encouraging the development of self-confidence (Eagly & Carli, 2007). On the other hand, the negative relationship between job search duration and Organisational Management and Strategic Thinking skills indicates that as unemployment duration increases, graduates' competence in these areas also declines. Individuals who enter the workforce later may miss out on opportunities to gain practical experience in organisational processes and actively participate in strategic management mechanisms (Fugate et al., 2004). This can limit their progress in decision-making and leadership skills, negatively affecting their professional development.

5. Conclusion

The findings reveal that female graduates lag behind male graduates in terms of organisational management and strategic thinking skills. Educational programmes need to provide more support for women in the areas of leadership, decision-making and strategic management. To this end, it will be possible to strengthen women's skills by developing special modules and mentoring programmes. In addition, women's leadership capacities should be encouraged by organising confidence-building training and seminars to raise awareness of gender equality. Since the prolonged job search period leads to a decline in graduates' communication, critical thinking, and organisational management skills, it is important to increase opportunities for gaining professional experience through internships, volunteer work, and mentoring during the pre-employment or job search process. Strengthening university-industry collaborations will support graduates in adapting to the workforce at an early stage. However, even in female-

dominated sectors such as healthcare, senior management positions are dominated by men, limiting women's leadership development. Therefore, inclusive leadership training, awareness programmes and policies to remove glass ceiling barriers should be implemented in organisations to reduce gender-based bias. Women's tendency to evaluate their own skills more critically than men indicates a lack of self-confidence; therefore, it is recommended that education programmes support women with psychosocial support, self-confidence development activities, and positive role models to increase their self-efficacy perception.

This study has some limitations. First, the fact that the study was conducted at a specific university level and with a limited number of participants restricts the generalisability of the findings. Additionally, since the data is based on self-reporting, subjective biases and social desirability effects may arise in participants' self-assessments. The study only examined certain demographic variables and skill areas, and other potential influencing factors (e.g., institutional culture, family support, economic conditions) were not considered. Finally, due to the cross-sectional design, causal relationships cannot be clearly determined, and changes over time cannot be tracked. Future studies are recommended to address these limitations by using larger sample groups, different methods, and long-term analyses.

CONFLICT OF INTEREST

The authors must declare that they have any conflict of interest.

AUTHOR STATEMENT

Ethical Approval:

Ethical approval for conducting the research was obtained from the Ethics Committee of Istanbul Sabahattin Zaim University under the approval number E-20292139-050.04-2400041791.

Consent to Participate:

Informed consent was obtained from all individual participants included in the study.

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