

# Examining the relationship between health professionals' organizational commitment and job satisfaction: a systematic review and meta-analysis

Fadime Çınar

*Department of Nursing, School of Health Science, Nişantaşı University, Istanbul, Turkey, and*

Hasim Çapar and Samet Mermerkaya

*Department of Health Management, Faculty of Health Sciences, Istanbul Sabahattin Zaim University, Istanbul, Turkey*

## Abstract

**Purpose** – This meta-analysis aimed to examine health professionals' job satisfaction and organizational commitment.

**Design/methodology/approach** – This research was conducted using the meta-analysis method, one of the quantitative research methods. A preliminary literature search was conducted to determine keywords over the internet access network. With screening, keywords such as “Organizational commitment,” “Organizational loyalty,” “Job satisfaction,” “job satisfaction,” “Healthcare worker,” “Organizational commitment,” “Organizational faith,” “job satisfaction,” “Job saturation” keywords in Turkish and English were determined. Nine full-text articles published in peer-reviewed journals between 2014–2020 from the electronic databases of Google Scholar, Web of Science, Scopus, Science Direct, EKUAL and Google Academic were included in the meta-analysis. The study's effect size and publication bias included in the meta-analysis were calculated using the CMA 3 (Comprehensive meta-analysis) program.

**Findings** – The total sample number of the studies included in the analysis is 7,218. According to the random effects model, the overall effect size between job satisfaction and organizational commitment was statistically significant, with a value of 0.544 (confidence interval [CI]: 0.445–0.629;  $p < 0.05$ ). This effect size was found to be moderate, according to Cohen's classification.

**Originality/value** – As a result of this meta-analysis, it was determined that there is a mutual interaction between job satisfaction and organizational commitment based on the cause-effect relationship. The findings obtained determined that job satisfaction has more power to affect organizational commitment positively.

**Keywords** Job satisfaction, Organizational commitment, Health professionals, Health sector

**Paper type** Research paper

## Introduction

Many things lose their importance in today's globalizing world compared to the past, or old concepts are transforming. In this age, where access to information is easy and people interact with each other regardless of distance, organizations try to maintain their existence by operating in harmony with the new order, just like people and societies. Employees who have not lost their importance from the past to the present are essential factors in ensuring organizations' continuity and development. Thus, employees have many studies in the literature on job satisfaction and organizational commitment (Eliyana and Ma'arif, 2019; Indarti *et al.*, 2017; Saadati *et al.*, 2016; Sökmen and Bıyık, 2016). More specifically, different studies have been conducted on the job satisfaction and organizational commitment of



healthcare workers (e.g. Aktay, 2010; Borhani *et al.*, 2014; Castaneda and Scanlan, 2014; Ciğerci, 2004; Tekingündüz and Tengilimoğlu, 2013).

Organizational commitment: According to the definition of Mowday *et al.* (1979), it is associated with at least three factors. The first of these factors is a strong belief in the goals and values of the organization. The second is to exert maximum effort for the goals of the organization. The third is to have a strong desire to remain part of the organization. The organizational commitment of the employees is not only limited to the “organization–employee” relationship, job satisfaction and organizational commitment but also affects employee satisfaction. As the employee’s commitment to the organization increases, belonging to the institution increases, and the institution is developed more (Sawitri *et al.*, 2016).

The concept of job satisfaction is a topic that attracts much attention for both those working in organizations and those who study them. The Turkish Language Association (2020) defines the concept of satisfaction as follows: “Making the desired thing come true, satisfying the heart, satisfaction.” Job satisfaction was first described by Hoppock (1935) in the literature; “I am satisfied with my job.” It is expressed as a combined state of psychological, physiological and environmental conditions (as cited in Al-Haroon and Al-Qahtani, 2020). In other words, for the employee, job satisfaction is the organization’s satisfaction with its material and moral conditions, and the sense of pleasure experienced with the team they work with. Job satisfaction is of vital importance not only for the employee but also for the organization. The reason for this is the assumption that individuals with high job satisfaction will work more eagerly and efficiently in achieving the goals of their organization (Işcan and Sayın, 2010). Different results have been obtained in studies on the organizational commitment and job satisfaction of healthcare professionals, and in this study, the relationship between the two concepts was systematically analyzed, and analysis was made. It is thought that this study will contribute to the literature, increase the awareness of healthcare professionals, show the studies that have been done so far from a broad perspective and shed light on future studies on the subject.

### **Job satisfaction as a concept**

The concept of job satisfaction is simply defined as how satisfied an employee is with his/her job (Spector, 1997). Employees who are happier and more satisfied than other employees will have higher productivity levels (Saari and Judge, 2004). Job satisfaction increases the performance of employee’s, makes them more innovative and open to development, raises their morale, and positively affects their relations with their colleagues (Mwesigwa *et al.*, 2020). Job satisfaction increases when an employee’s job-related needs, such as salary or job security, are met (Ryu and Moon, 2019). Job satisfaction plays a crucial role in job performance and organizational efficiency (Huynh and Hua, 2020). Job satisfaction focuses on the employee’s response to his/her job. Therefore, it has been shown that job satisfaction is related to the employee’s thoughts of leaving the job, and human resource practices are found to be the best predictors of organizational commitment (Ashraf, 2020).

### **Organizational commitment as a concept**

According to the definition of Mowday *et al.* (1979), organizational commitment is associated with at least three factors: a strong belief in the goals and values of the organization, a strong desire to exert maximum effort towards the purposes of the organization and to remain part of the organization (Mowday *et al.*, 1979). Allen and Meyer (1990) state that organizational

commitment consists of three components: affective commitment, continuance commitment and normative commitment. Employees remain emotionally committed to the organization when they want organizational membership, need continuance commitment, and feel obligatory in terms of normative commitment (Allen and Meyer, 1990; Şekerli, 2017). Organizational commitment is positively associated with employees' overall job performance indicators, and lack of employee commitment often harms the organization's goals and results (Abuzaid, 2018).

Organizational commitment reflects not only passive commitment but also the positive relationship of employees with the organization. For this reason, employees with high organizational commitment will do their best and take responsibility for the organization's development (Hadian, 2017).

Today, the business environment is changing rapidly and continuously, so managers need to find ways to improve their employees' commitment to the organization (Shoaib *et al.*, 2013).

### **The relationship between job satisfaction and organizational commitment**

As a result of a study conducted by Hedayat *et al.* (2018), a statistically significant positive relationship was found between organizational commitment and job satisfaction. Accordingly, it was reported that organizational commitment predicted changes in job satisfaction with a rate of 42.2%. Job satisfaction not only increases the performance of employees but also makes them feel good in social life. In other words, job satisfaction can be explained as a very important criterion not only financially but also in terms of social responsibility and social communication (Robbins, 1998). It is stated that the institution will be more advantageous compared to its competitors if the employees' belonging to the institution and their job satisfaction are high (Kuo and Yi-Ju Chen, 2013). For this reason, it can be said that job satisfaction is an important determinant of organizational commitment (Leite *et al.*, 2014).

In this context, the necessity of revealing the relationship between job satisfaction and organizational commitment with a larger sample formed the motivation of this study. This meta-analysis study was conducted with the idea that it would provide evidence with a broader perspective by bringing together the results of important empirical studies both in practical business life and in scientific literature.

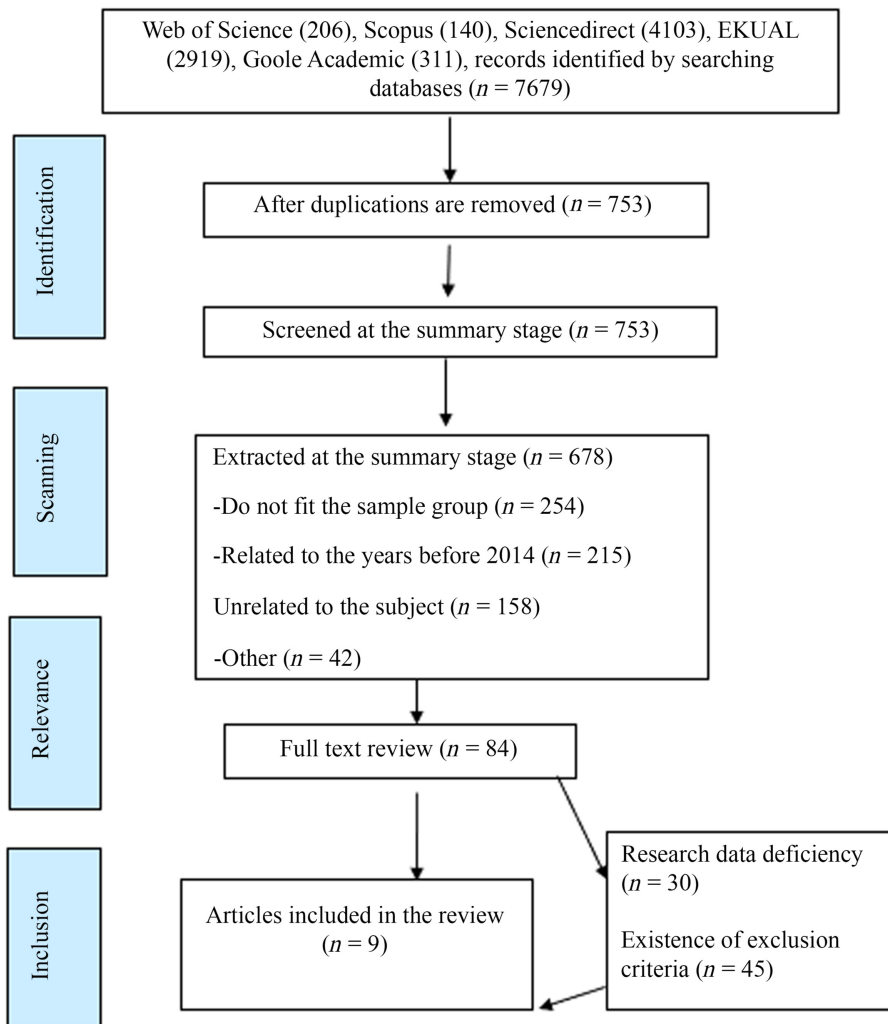
### **Method**

This research was conducted using the meta-analysis method, one of the quantitative research methods. The study was carried out in the Health Management Department of the Institute of Health Sciences of a foundation university between February and March 2020.

### **Application of the study**

For the study's application steps, the articles to be included in the meta-analysis were classified based on PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) statement and MOOSE (Meta-analysis of Observational Studies in Epidemiology) criteria. In the literature, it is recommended that most of the systematic review and meta-analysis research presentations (writing the research report) be made according to the PRISMA statement checklist (PRISMA statement: Checklist of items to include when reporting a systematic review or meta-analysis). In this study, the authors acted in line with this suggestion and used the PRISMA notification methodology. The aim of PRISMA is to facilitate the work of authors by assisting them in improving the presentation of systematic

reviews and meta-analysis research. It is also stated that the PRISMA statement is used for the critical evaluation of published systematic reviews and meta-analysis studies (Moher *et al.*, 2009). Articles that meet these criteria were determined and presented in Figure 1 and Table 1. Keywords determined for article searches are "Organizational commitment," "Organizational loyalty," "Job satisfaction," "Job satisfaction," "Healthcare worker," "Organization commitment," "Organization faith," "Job satisfaction," "Job saturation" words. Articles on the subject were searched from all databases targeted to be entered using. In the searches made from Google Scholar, Web of Science, Scopus, Science Direct, EKUAL and Google Academic databases, relevant research articles published between January 2014 and February 2020 and inclusion criteria were included in the evaluation. In total, 7,679 articles were reached in searches. The criteria for the articles to be searched and included in the meta-analysis are as follows: studies that are original articles, articles written



**Figure 1.** PRISMA 2 (Preferred Reporting Items for Systematic Reviews and Meta-Analyses statement) flow chart (Moher *et al.*, 2009)

Study title	Study objective	Assessment tools used in the study	Sample characteristics	Study outcomes
Perceived organizational commitment and job satisfaction among nurses in Albanian public hospitals: A cross-sectional study <a href="#">Gabrani et al. (2016)</a>	The purpose of the study was to describe the nurses' organizational commitment and job satisfaction with regard to different dimensions of the job attributes	Overall job satisfaction, general and social survey	Three regional public hospitals in Albania ( <i>n</i> :246)	Satisfaction of the nurses with nature of the work, salary and quality of the supervision explained a considerable percent variance in their commitment. However, they were relatively less satisfied with promotion opportunities and coworkers' satisfaction
The relationship between organizational commitment and job satisfaction in nurses <a href="#">Hoş and Oksay (2015)</a>	The main aim of this study is to find the levels of job satisfaction and organizational commitment in nurses	Three-dimensional Organizational Commitment Scale	Nurses working in Ankara Training and Research Hospital. ( <i>n</i> :240)	Internal and external job satisfaction have positive and meaningful relation with organizational commitment
The effect of job satisfaction and motivation of health care professionals on their organizational commitment: The case of Turkey <a href="#">Isik et al. (2016)</a>	The objectives of this study are to propound the relationship between job satisfaction levels, motivation and organizational commitment of health care professionals who work in the public sector in Turkey and to specify the effect of their job satisfaction levels and motivation on organizational commitment	Minnesota Job Satisfaction Scale Organizational Commitment Scale Work Motivation Behavior Scale Minnesota Job Satisfaction Scale	Healthcare professionals in Turkey ( <i>n</i> :4,396)	When the inadequacy of healthcare manpower in Turkey is taken into consideration, it is seen to be rather important for employees to get job satisfaction and for organizations to develop applications that will boost their employees' motivation so that organizations are able to keep hold of their employees
The impact of organizational commitment and nursing organizational Culture on job satisfaction in Korean American registered nurses <a href="#">Kim et al. (2016)</a>	This study aimed to describe the perceived level of organizational commitment and organizational culture of Korean American registered nurses and to investigate predictors of job satisfaction	Index of work satisfaction, nursing organizational culture and organizational commitment questionnaire	Korean American registered nurses working in US hospitals ( <i>n</i> :163)	Job satisfaction was positively correlated with both organizational commitment and culture

**Table 1.** Characteristics of studies included in the review

(continued)

Study title	Study objective	Assessment tools used in the study	Sample characteristics	Study outcomes
The impact of psychological empowerment and organizational Commitment on Chinese nurses' job satisfaction <a href="#">Ouyang et al. (2015)</a>	The aim of this study is to describe job satisfaction, psychological empowerment and organizational commitment of Chinese nurses	Job Satisfaction Survey Psychological Empowerment Scale Organizational Commitment Scale	Nurses working in 10 different tertiary hospitals ( <i>n</i> :726)	Nurses' job satisfaction, psychological empowerment and organizational commitment were identified at moderate levels
The effect of structural empowerment and organizational commitment on Chinese nurses' job satisfaction <a href="#">Yang et al. (2014)</a>	The purposes of this study were to examine the level of structural empowerment, organizational commitment and job satisfaction in Chinese nurses and to investigate the relationships among the three variables	Conditions for Work Effectiveness Questionnaire-II (CWEQ-II) Organizational Commitment for Chinese (COCQ) Minnesota Satisfaction Questionnaire (MSQ)	Full-time qualified nurses employed by five tertiary first-class hospitals in Tianjin ( <i>n</i> :524)	Moderate levels of the three variables were found in this study. Both empowerment and commitment were found to be significantly associated with job satisfaction
The work-based predictors of job engagement and job satisfaction Experienced by community Health professionals <a href="#">Noblet et al. (2016)</a>	This study drew on the demand-control model, in addition to stressors that are more specific to community health to identify conditions that are closely associated with the engagement experienced by a community health workforce. Job satisfaction was also included as a way of assessing how the predictors of job engagement differ from those associated with other job attitudes	Utrecht Work Engagement Scale Job Satisfaction Scale Job Control Scale Quantitative Workload Scale CHS-Specific Stressors Scale	Health and allied healthcare professionals from two Australian community health services ( <i>n</i> :516)	The analyses revealed that three working conditions were predictive of both job engagement and job satisfaction
Exploring the relationship between professional commitment and job satisfaction among nurses <a href="#">Hsu et al. (2015)</a>	This cross-sectional study explored the relationship between professional commitment and job satisfaction among nurses	Professional Commitment Questionnaire Job Satisfaction Questionnaire	Nurses from a hospital in Northern Taiwan ( <i>n</i> :132)	Nurses' professional commitment was strongly related to job satisfaction; aspects of professional commitment explained 32% of the variance in job satisfaction

(continued)

Table 1.

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Study title	Study objective	Assessment tools used in the study	Sample characteristics	Study outcomes
The influence of work life balance and job satisfaction on organizational commitment of healthcare employees <a href="#">Azeem and Akhtar (2014)</a>	The study examines the effects of perceived work–life balance and job satisfaction on organizational commitment among healthcare employees	Minnesota Satisfaction Questionnaire (MSQ) Work–Life Balance Scale	Public and private hospitals in Uttar Pradesh, a state of India ( <i>n</i> : 275)	Significant relationship is found among work–life balance, job satisfaction and organizational commitment

only in English and Turkish in order to prevent linguistic bias in the relevant subject articles, which are accessible within the university and published in a national/international refereed journal, articles examining the relationship between organizational commitment and job satisfaction of healthcare professionals and articles from the last six years (2014–2020). In the study, the articles in which the total number of groups and the changes in the determined main outputs (including the Pearson correlation coefficient ( $r$ ) values of the factors of the relationships between organizational commitment and job satisfaction) were presented in full, and quantitative terms were evaluated.

### Methodological quality assessment according to the review, coding and inclusion criteria of articles

Independent and detailed abstract and full-text readings of the articles were completed by two researchers/experts in order to prevent publication bias. The articles evaluated were coded according to their defining features. These defining features such as the name and date of the study, the type and purpose of the study, the sample size of the study, the sample content, the scales used in the study, the main output of the study and the quality assessment score were determined. For the remaining nine publications after the studies review, 12 of the research quality evaluation criteria proposed by Polit and Beck were used ([Polit and Beck, 2009](#)). These criteria make it possible to make a general assessment based on the aims, sample characteristics, findings and results of the studies. Each study was evaluated on all criteria and by the researchers separately, and if it met each item thoroughly, “1 point” was given if it did not meet “0 points”. The scores the study can get according to the criteria range from 0 to 12. In the study, articles belonging to all subgroups were examined independently by two researchers, and articles scoring seven or more in the quality evaluation were evaluated as quality. Three of the studies ( $n = 16$ ) whose quality was evaluated by independent evaluators were evaluated as “weak,” and one “medium.” Since studies evaluated with medium and robust quality will be included in the meta-analysis, ten studies in total met this criterion. However, one more study was eliminated, and nine studies were included in the meta-analysis because they were not suitable for the analysis after the evaluation (the effect size was not calculated because the sample size was too extreme). In these studies, the frequency and percentage values of the combined sample numbers according to the sample content were analyzed by evaluating the Pearson correlation coefficient ( $r$ ), which shows the relationship between the employees’ employment status in the sample, organizational commitment and job satisfaction. Also, the presence of moderator variables that may affect this relationship was analyzed and evaluated.

### Data analysis

In the data analysis, “Comprehensive meta-analysis (CMA) academic/Non-profit pricing (Version 3),” licensed software was used. The data of all articles meeting the inclusion criteria

and decided to be included in the study were entered into the CMA software, and the heterogeneity of the articles was evaluated. To determine whether there is publication bias in meta-analyzed studies, scatter in the funnel plot was examined in the first stage, then classic fail-safe N statistics and Begg and Mazumdar rank correlations statistics were made. After the effect size values of each study included in the meta-analysis were calculated, a heterogeneity test was performed in the research. According to these test results, two models are used in the meta-analysis, namely fixed effects and random effects. In the heterogeneity test, the random effects model in group analyzes with  $p \leq 0.05$ , and in group analyses with  $p > 0.05$ , effect sizes, study weights, 95% confidence intervals and overall effect size were calculated under the fixed effect model. In studies containing correlation data, correlation coefficients are used instead of effect size. Fisher z transform was used for the correlation coefficients in the studies' meta-analysis, and at the end of the operations, this value was converted back into correlation. The statistical significance limit was accepted as  $p \leq 0.05$  in the evaluation of the overall effect. Funnel plot analysis was performed to test the publication bias, and classic fail-safe N and tau coefficient calculation results were used. In evaluating the overall effect, the statistical significance limit was accepted as  $p \leq 0.05$ .

## Results

All of the studies included in the meta-analysis are cross-sectional research, and it was determined that they were published between 2014 and 2020. It was determined that two of the related publications were from 2014, three were from 2015, 4 were from 2016 and the oldest published publication was in 2014. In this study, kappa values ranged between 0.721–0.838 based on the interrater reliability analysis articles. The overall fit rate kappa value was found to be 0.779 and was found to be significantly compatible. Quality assessment scores range from 9 to 12 (Table 1).

### Effect sizes and heterogeneity

According to the findings obtained from research studies, the research sample consists of 7,724 people. A heterogeneity test was applied to determine the relationship between health professionals' job satisfaction and organizational commitment. It was determined that the studies examined according to the relationship between job satisfaction and organizational commitment had a heterogeneous structure. The I<sup>2</sup> statistic value was calculated as 95,728. As a result of the calculations, the effect size distribution was evaluated according to the random effects model.

In Table 2, the meta-analysis results of nine studies investigating the relationship between job satisfaction and organizational commitment of health professionals and included in the study were shown with a forest plot. With the analysis performed according to the random effects model, it was found that the overall effect size on the job satisfaction and organizational commitment of health professionals was statistically significant with a value of 0.544 (GA; 0.445–0.629;  $p > 0.00$ ). As a result of the heterogeneity test, if the  $p$ -value is less than 0.05 or the  $Q$  value is greater than the value corresponding to the  $df$  value in the two tables, it is understood that the meta-analysis application is heterogeneous as a result of the individual studies included in the analysis (Dinçer, 2014). Also, it was calculated as the I<sup>2</sup> statistic value to determine the level of heterogeneity. Accordingly, with the value of  $I^2 = 95,728$ , the effect size distribution shows a high heterogeneity level.

When Figure 2 is examined, it is seen that the correlation values between organizational commitment and job satisfaction are positive and change between 0.253 and 0.850. In the random effects model of these nine studies, the average effect size was calculated positively with a value of 0.544.

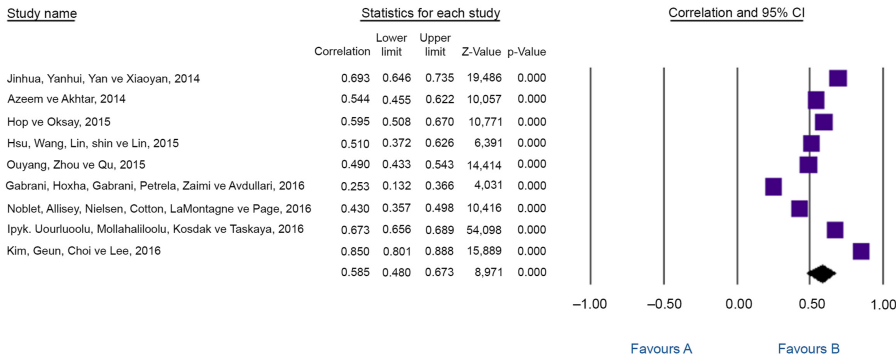


**Analysis of publication bias**

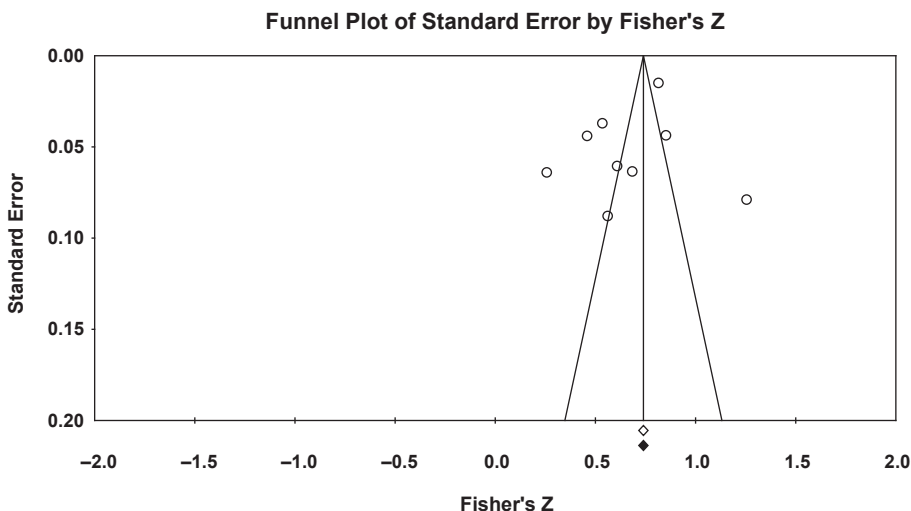
Publication bias in this study, funnel scatter plot, classic fail-safe *N*, Begg and Mazumdar rank correlations were tested by statistical methods. The funnel scatter plot results, which are also considered a visual summary of the meta-analysis dataset and show the probability of publication bias, are shown in Figure 3. As shown in Figure 3, most of the 12 studies included in the study are located very close to the combined effect size and the top. Publication bias above a certain level affects the average effect size to be calculated and makes it higher than it should be (Borenstein *et al.*, 2013). According to Figure 3, it can be said that there is no image regarding publication bias.

**Discussion and conclusion**

In this study, the relationship between organizational commitment and job satisfaction in health institutions and organizations was examined by meta-analysis method. With the meta-analysis method, the statistical analysis of scientific studies' findings examining the relationships between organizational commitment and job satisfaction of health professionals in the health sector was provided. These findings were combined to reach a common judgment on the



**Figure 2.** Forest chart of the effect of job satisfaction on organizational commitment



**Figure 3.** Funnel scatter plot

relationship between organizational commitment and job satisfaction. In this regard, a total of nine studies ( $n: 7,218$ ) were examined. It is seen that the correlation values between organizational commitment and job satisfaction are positive and vary between 0.480 and 0.673. In the random effects model of these nine studies, the average effect size was calculated positively with a value of 0.585. The most preferred measurement tools in studies are the Minnesota Job Satisfaction Scale and the Organizational Commitment Scale.

Although this study reveals a mutual interaction between job satisfaction and organizational commitment based on a cause-effect relationship, a significant part of the literature's findings and opinions determined that healthcare workers' job satisfaction has more power to affect organizational commitment positively. Also, in terms of organizations retaining their employees, it is essential for them to be satisfied with their jobs and develop practices that increase their motivation (e.g. [Chen et al., 2015](#); [Hashish, 2015](#); [Wang et al., 2012](#)). A positive relationship was observed between organizational commitment and job satisfaction in reviews conducted in different fields (e.g. [Amiresmaili and Moosazadeh, 2013](#); [Lu et al., 2005](#); [Ülbeği and Yalçın, 2016](#)). The process we have seen in practical life, especially due to the coronavirus pandemic experienced in recent days, shows how important organizational commitment and job satisfaction are in health institutions. Because it can be stated that the most important factor affecting the job performance of health workers who work day and night to save people's lives is job satisfaction. It can be said that even the relationships of health workers with other people in busy working hours are based on their job satisfaction and organizational commitment. It is unthinkable for a person who does not feel a sense of belonging to the institution he/she works for and who does not have organizational commitment to work for someone else's life. For this reason, in the light of the results obtained from this study, it emerges that the management decisions in health institutions should be based on evidence. What will meet this need is empirical studies with a large sample size, as in the current study. This study is envisaged that it will provide a broad framework for future work on job satisfaction and organizational commitment and contribute to health professionals.

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### About the authors

Fadime Çınar is a doctor in the Department of Health Management at Istanbul Sabahattin Zaim University, Turkey. His research interests include health economics, health management, health tourism and health policy. Fadime Çınar is the corresponding author and can be contacted at: [fadime.cinar@nisantasi.edu.tr](mailto:fadime.cinar@nisantasi.edu.tr)

Hasim Çapar is a lecturer in the Department of Health Management at Istanbul Sabahattin Zaim University, Turkey. His research interests include medical tourism, health economics, health management and health policy.

Samet Mermerkaya is a research assistant in the Department of Health Management at Istanbul Sabahattin Zaim University, Turkey. His research interests include health economics, health management and health tourism.