



# Bibliometric Analysis of Publications on Stigmatization in Türkiye According to the Association Rules

## *Türkiye’de Yapılmış Damgalama ile İlgili Yayınların Birliktelik Kuralına Göre Bibliyometrik Analizi*

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### ABSTRACT

In this study, studies published in Turkey and included in ULAKBİM TR Index and Turkish Psychiatry Index and containing the keyword stigmatization were examined in terms of bibliometrics. A total of 143 studies were evaluated within the scope of the study. It was determined that 80.4% of the studies were research articles and they were frequently made in a descriptive design. It was determined that 65% of the studies were related to the type of public stigma, were frequently conducted in the field of psychiatric nursing, and were most frequently published in the Journal of Psychiatric Nursing. According to the association rule analysis, it was determined that the stigma keyword was used most frequently with mental disorders, internalized stigmatization, individuals with mental disorders, and infectious diseases. Considering that the studies examined are often made in a descriptive design related to mental disorders, it may be recommended to increase the number of experimental studies aiming to combat the stigma of mental disorders.

**Keywords:** bibliometric analysis, mental disorder, stigmatization.

### ÖZ

Bu çalışmada Türkiye’de yayımlanan ve ULAKBİM TR Dizin ile Türk Psikiyatri Dizininde yer alan, damgalama anahtar kelimesi içeren çalışmalar bibliyometrik yönden incelendi. Çalışma kapsamında toplam 143 çalışma değerlendirildi. İncelenen çalışmaların %80,4’ünün araştırma makalesi olduğu, sıklıkla tanımlayıcı desende yapıldığı belirlendi. Çalışmaların %65’inin toplumsal damgalama türü ile ilişkili olduğu, sıklıkla psikiyatri hemşireliği araştırma alanında yapıldığı ve en sık Psikiyatri Hemşireliği Dergisinde yayımlandığı belirlendi. Yapılan birliktelik kuralı analizine göre damgalama anahtar kelimesinin en sık ruhsal bozukluk, içselleştirilmiş damgalama, ruhsal bozukluğu olan birey ve bulaşıcı hastalık ile birlikte kullanıldığı belirlendi. İncelenen çalışmaların sıklıkla ruhsal bozukluklar ile ilişkili tanımlayıcı desende yapıldığı düşünüldüğünde, ruhsal bozukluklara yönelik damgalamanın azaltılmasını hedefleyen deneysel çalışma sayısının artırılması önerilebilir.

**Anahtar sözcükler:** bibliyometrik analiz, damgalama, ruhsal bozukluk.

## Introduction

Meaning of the word stigmatization used in ancient Greece was hole, puncture, wound and scar. The most commonly used and accepted definition of the concept of stigmatization was made by American Sociologist Goffman. Goffmann (1963) defined stigmatization as discrediting, humiliating and disparagement. In other words, stigmatization is the devaluation and relegation of an individual or community due its different property (Özmen and Erdem, 2018).

Although stigma has been common in all societies throughout history, the concept has gained more importance in the last fifty years. Throughout history, epidemics such as cholera and plague have been stigmatized and people with the disease have been isolated from society and punished. In the past, leprosy centers were built for individuals diagnosed with leprosy, and they were removed from society (Avci et al., 2016). During the current COVID-19 global epidemic, individuals who become ill are similarly stigmatized and marginalized (Saiz et al., 2021). With the increase in possible treatment methods of infectious diseases, the anxiety and fear of these diseases have decreased

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over time (Avcil et al., 2016). Another group of diseases that are stigmatized in society as much as infectious diseases is mental disorders (Rodriguez-Rivas et al. 2021). Individuals with mental disorders have been stigmatized and chained for years with the belief that they are punished by God and are under the influence of witches and evil spirits. Although causes of mental disorders are understood and treatment opportunities, have increased, unfortunately, such disorders still continue to be stigmatized (Avcil et al., 2016).

Stigmatization has a very complex and dynamic structure. It is possible to talk about political, economic and social power inequalities in stigmatization. The treatment processes of individuals who experience these inequalities (Chen et al., 2020), particularly adaptation to treatment of individuals with mental disorders are adversely affected. Individuals do not apply at treatment due to stigma, and do not continue even if they apply (Martinez-Martinez et al., 2022). Stigmatization causes a loss of self-esteem for individuals. Stigmatized individuals with mental disorders may be deprived of many services such as employment, housing, law and health services and may experience the effects of stigmatization in many areas of life (Thornicroft, 2014).

Recently, the number of studies on stigmatization has increased. In addition to study by Goffmann (1963), anti-stigmatization campaigns were launched at the national and international scale. In particular, with the “Global Program to Fight the Stigma and Discrimination Because of Schizophrenia: Open the Doors” campaign by the World Psychiatric Association (WPA) in 1998 increased awareness about stigmatization and the quantity and quality of studies on this subject (Chen et al., 2020). Many books on stigmatization were published and continue to be published. In addition, every year scientific activities are carried out and scientific journals are published. The journal titled Stigma and Health is published by the American Psychological Association (APA) (<https://www.apa.org/pubs/journals/sah>).

Bibliometric analyzes are studies that shed light on the patterns, types and possible biases of the studies in the literature. Used in various areas, bibliometric analysis raises awareness about the quantitative number of studies and the level of knowledge on the subject (Çiçek Korkmaz, and Altuntaş 2022). Examination of previous studies guides future studies (Bozkurt and Zawacki-Richter, 2021). Recently, study patterns, scientific productivity, collaborations, visibility of studies and their reflections on the future studies are examined with bibliometric analysis (Martinez-Martinez et al., 2022). When the studies on stigmatization are examined, cross-sectional studies related to diseases, experimental studies involving initiatives to reduce stigmatization, methodological studies where scale validity and reliability studies were conducted, and correlational and simple descriptive studies surface (Chen et al., 2020). However, when the national literature was examined, no bibliometric analysis about stigmatization was found. Analyzing the studies on stigmatization in recent years by researchers is important in terms of shedding light on future studies, reflecting information on practice, and establishing laws, policies, and action policies in this field in our country (Chen et al., 2020; Martinez-Marinez

et al., 2022). Thus, the purpose of this study is to conduct a bibliometric analysis of stigmatization-related studies published in our country.

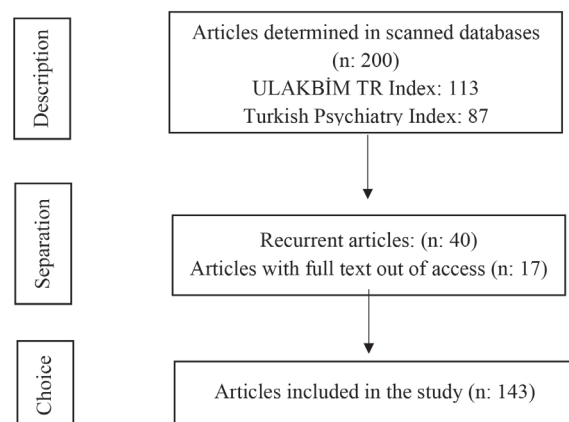
## Method

### Data Collection Process

In this study, search was conducted on Turkish Psychiatry Index and ULAKBİM TR Index by two independent authors using the keyword “stigmatization”, which is one of the Medical Search Terms (MeSH-Medical Search Term). Studies with the keyword “stigmatization” in the title or abstract were examined. Search was conducted between 03.08.2022 and 17.08.2022, and a total of 113 studies in the ULAKBİM TR Index and 87 studies in the Turkish Psychiatry Index were reached. No restrictions were applied to the screening of the studies in terms of year. Forty recurrent studies in both databases were excluded. 17 studies whose full text could not be accessed were not included in the analysis and a total of 143 studies made up the sample (Figure 1). Properties of the studies (type of study, year of publication, keywords, region of the authors, research areas, published journals, number of citations and, if applicable, type of study, sample groups and number) were transferred to Microsoft Excel and SPSS by one of the authors.

### Statistical Analysis

Microsoft Excel, SPSS 20.0 and Python were used to analyze the data in the study. Number, percentage, mean, standard deviation, minimum and maximum were used in the analysis of descriptive data. In the study, the keywords used for the keyword “stigmatization” were analyzed by association rules analysis (Aggarwal and Yu, 2001) and presented in graphics. In association rules analysis, support and confidence parameters are discussed. The support rate indicates how often a relationship is repeated and increases when it is repeated. Confidence, on the other hand, indicates the probability of a relationship between variables. In this study, association rules analysis was performed to determine which keywords the stigmatization keyword is used



**Figure 1.** Flow Diagram of the Study

with frequently. The support rate was found to be low (0.01-0.05), since the number of publications published in our country including only the word stigmatization was limited.

## Results

Properties the studies examined in this study about stigmatization are presented in Table 1. It was determined that 86.7% of the studies were published in Turkish, 80.4% were research articles, 26.6% were cross-sectional and descriptive, and 22.4% were correlational. When the sample types in the research articles were examined, it was determined that 30.1% were patients, followed by the society, healthcare professionals, health sciences and medical faculty students, other university students, high school students, patient relatives and important people in the society (teachers, headmen, etc.). The mean number of samples was found to be 258.16 (287.27). It was determined that all studies were cited an average of 9.81 (20.40) times.

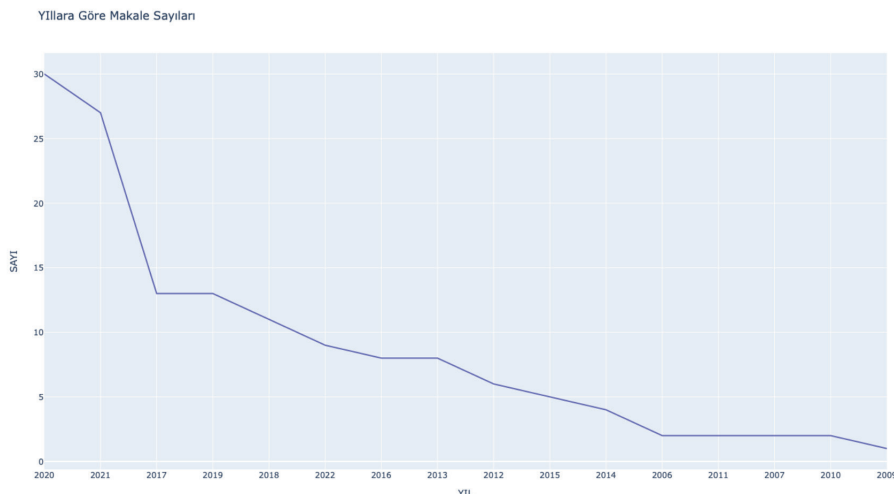
When the research areas of the authors were examined, it was determined that 23.8% of them were psychiatric nursing and 18.2% were mental health and illnesses specialists, and 15.4% of the studies were multidisciplinary. In the studies, it was determined that 28.7% of the authors served at institutions in the Marmara region, 21% in the Aegean and 21% in the Central Anatolia Region. The journals that published studies the most frequently were 9.8% Psychiatric Nursing Journal, 7% Anatolian Journal of Psychiatry, 4.9% Turkish Psychiatry Journal, 2.1% Clinical Psychiatry Journal, while other studies were published in health sciences and social sciences journals in our country. It was detected that 65% of the stigmatization types examined were social stigma; 35.7% of were related to mental disorders, 15.4% of them were related to stigmatization of infectious diseases and 13.3% to stigmatization of physical diseases. It was determined that 143 studies accessed in the study were published between 2009 and 2022, and the most common studies on stigmatization were conducted in 2020 (Figure 2).

It was established that the stigmatization keyword was frequently used together with the keywords mental disorder, internalized stigma, individual with mental disorder, and infectious disease (Figure 3). When the rate of repetition of the stigma keyword and other keywords was examined, it was determined that the rate of support for stigma and mental disorder, stigmatization and internalized stigmatization, stigmatization and attitude, stigmatization and individual with mental disorder was high (Figure 4).

As a result of the association analysis using content and keywords, the words that are significant according to the confidence value and used together are shown in Figure 5 according to the graph theory. Similarly, among the keyword pairs it was determined that Pandemic and Stigmatization, Covid-19 and Stigmatization, Internalized Stigmatization and Stigmatization, Attitude and Stigmatization, Mental Illness and Stigmatization, Stigma and Stigmatization, Validity and Stigmatization, Social Stigmatization and Stigmatization, Psychological Help Search and Stigmatization were used together.

## Discussion

In this study that is a bibliometric examination of studies on stigmatization published in our country, it was determined that the studies examined within the scope of the study were mostly published in Turkish and were research articles. When the types of research were examined, it was determined that there were frequently cross-sectional, descriptive, correlational and methodological studies where scale development, validity and reliability were used to measure stigmatization. It was noted that this result was similar to the literature (Chen et al., 2020). Considering that studies on stigmatization increased in our country in 2000 and later, similar to the literature (Taşkın, 2007; Martinez-Martinez et al., 2022), it could be argued that studies are often conducted to analyze the current situation and to provide culture or language-specific standardized measurement tools. It could be recommended that future studies that aim to



**Figure 2.** Number of studies according to years

<b>Table 1: Properties of Examined Studies</b>		
<b>Properties</b>	<b>n</b>	<b>%</b>
<b>Publication language</b>		
Turkish	124	86.7
English	19	13.3
<b>Type of Article</b>		
Review	23	16.1
Systematic Review and Meta-analysis	5	3.5
Research	115	80.4
<b>Type of Study</b>		
Cross-sectional and Descriptive	38	28.7
Correlational	32	22.4
Qualitative	15	10.5
Semi-Experimental	6	4.2
Randomized Controlled	2	1.4
Methodological	18	12.6
Mixed Pattern	2	1.4
<b>Types of Stigmatization</b>		
Social Stigmatization	93	65
Internalized Stigmatization	35	24.5
Structural Stigmatization	5	3.5
Organizational Stigmatization	1	0.7
Multiple Types	9	6.3
<b>Regions of Institutions of Authors</b>		
Marmara Region	41	28.7
Aegean Region	30	21
Central Anatolia Region	30	21
Black Sea Region	15	10.5
Mediterranean Region	10	7
East Anatolia Region	9	6.3
Southeast Anatolia Region	5	3.5
Turkish Republic of North Cyprus	1	0.7
Abroad	2	1.4
<b>Research Areas of Authors</b>		
Mental Health and Psychiatry Nursing	34	23.8
Mental Health and Illnesses	26	18.2
Psychology	5	3.5
Multidisciplinary	22	15.4
Education Sciences	13	9,1
(Guidance and Psychological Counseling)	13	9.1
<b>Other</b>	<b>43</b>	<b>30</b>
	<b>Mean (Standard deviation)</b>	<b>Minimum-Maximum</b>
<b>Sample Size</b>	258.12 (287.27)	5-1435
<b>Number of Citations</b>	9.81 (20.40)	0-122



**Figure 3:** Content distribution of studies related to stigmatization keyword

support	itemsets
1.000.000	(DAMGALAMA)
0.459854	(RUHSAL BOZUKLUK)
0.459854	(DAMGALAMA, RUHSAL BOZUKLUK)
0.248175	(DAMGALAMA, İÇSELLEŞTİRİLMİŞ DAMGALAMA)
0.248175	(İÇSELLEŞTİRİLMİŞ DAMGALAMA)
0.218978	(TUTUM)
0.218978	(DAMGALAMA, TUTUM)
0.204380	(PSİKİYATRİ HASTASI, RUHSAL BOZUKLUĞU OLAN BİR...
0.204380	(PSİKİYATRİ HASTASI, RUHSAL BOZUKLUĞU OLAN BİR...
0.167883	(ÖĞRENCİ )
0.167883	(ÖĞRENCİ , DAMGALAMA)
0.160584	(PSİKİYATRİ HASTASI, RUHSAL BOZUKLUĞU OLAN BİR...
0.160584	(PSİKİYATRİ HASTASI, RUHSAL BOZUKLUĞU OLAN BİR...
0.153285	(BULAŞICI HASTALIK)
0.153285	(DAMGALAMA, BULAŞICI HASTALIK)
0.153285	(RUHSAL BOZUKLUK, İÇSELLEŞTİRİLMİŞ DAMGALAMA)
0.153285	(RUHSAL BOZUKLUK, DAMGALAMA, İÇSELLEŞTİRİLMİŞ ...

**Figure 4:** Support values of studies on stigmatization

reduce stigmatized individuals and illness-related stigmatization should be conducted on a large-scale and with experimental design.

It was determined that studies on stigmatization were frequently carried out in the field of psychiatric nursing and were published in the Journal of Psychiatric Nursing. Similarly, in the systematic review by Çam and Bilge (2013) where the authors examined the belief, attitude and stigmatization process towards mental illness in our country, it was determined that 54.2% of the articles examined were written by psychiatric nurses. Among the reasons of this one could cite inclusion of fight against stigmatization among the national targets determined within the framework of the National Mental Health Action Plan in 2011 (Ministry of Health, 2011) and in line with this goal, covering the issues of stigmatization and combating stigmatization in the graduate education curricula of Mental Health and Psychiatric Nursing, in addition to examination of this theme in scientific activities. It was determined that researchers frequently work in institutions

in the Marmara Region. This result could be explained with the higher number of researchers, universities and psychiatry clinics in this region compared to other regions. In addition, it could be recommended to determine attitudes and beliefs of individuals in other parts of our country about stigmatization, conducting and increasing numbers of studies on the fight against stigmatization.

It was determined that the keyword stigmatization was used together with mental disorder, internalized stigmatization, attitude and individual with mental disorder. Stigmatization is an obstacle to recovery in mental disorders. In the literature it is stated that due to its negative effects, stigmatization is the second disease that individuals have to cope with besides mental disorder (Martinez-Martinez et al., 2022), and there are studies examining the relationship between mental disorders and stigmatization. Initiatives such as contact, training, and simulation are reported to be effective in reducing stigmatization. Contact brings the individuals with mental disorder together with the society, reducing their anxiety and increasing empathy skills. Education is reported to reduce negative false beliefs and thoughts about mental disorders while simulation is reported to increase empathy skills of individuals through experiences (Morgan et al., 2018). It is important to conduct experimental, systematic review and meta-analysis studies with high evidence value examining different initiatives to reduce stigmatization.

According to the association analysis used in the study, it was determined that the confidence value of the word pairs Pandemic and Stigmatization, COVID-19 and Stigmatization were high and the probability of their being used together increased. While it was observed that stigmatization studies on HIV and other infectious diseases were frequently included in the literature in the past (Gökengin et al., 2017), an increase was observed in the number of studies on pandemics and stigmatization, especially in the last two years. The COVID-19 pandemic, which affected the whole world, negatively affected the daily lives and routines



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