

**A SYSTEMATIC REVIEW OF THE STUDIES
FOCUSING ON ATTITUDES TOWARD
INDIVIDUALS WITH DISABILITIES IN TURKIYE**

TÜRKİYE'DE ENGELLİ BİREYLERE YÖNELİK
TUTUMLARA ODAKLANAN ÇALIŞMALARIN
SİSTEMATİK BİR İNCELEMESİ

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ABSTRACT

Attitudes play a crucial role in understanding individuals' behaviors and judgments regarding disability. There have been a lot of studies conducted to assess attitudes toward disability in Türkiye. However, there is a need to examine the objectives, methods, and results of the conducted studies and suggest implications for future studies. The current paper aims to systematically review attitudes toward general disability research that was conducted using the available scales for assessing attitudes toward disabilities in general. For this aim, four attitudes toward disability scales that were developed in Türkiye or translated into Turkish were determined: Attitude Toward Disabled Persons Scale (ATDP), Attitudes Towards Disabled Persons (ATD), Attitudes towards Persons with Disabilities Inventory (APDI), and Multidimensional Attitude Scale toward Persons with Disabilities (MAS). 68 research studies using one of these scales were identified and examined on the basis of four determinants: research, sample, methods, and results. Results showed that most of the studies were descriptive and quasi-experimental and found positive attitudes towards IWDs. Even though there are contrasting findings for sociodemographic variables, having contact with IWDs and taking courses about disability might be effective in increasing positive attitudes. The limitations and implications for future studies are also discussed

ÖZ

Tutumlar bireylerin engelliliğe yönelik davranış ve yargılarını anlamakta önemli bir rol oynarlar. Türkiye'de engelliliğe yönelik tutumları ölçmek üzere pek çok araştırma yürütülmüştür. Ancak, bu çalışmaların amaçlarını, yöntemlerini ve sonuçlarını incelemeye ve gelecekteki çalışmalar için öneriler geliştirmeye ihtiyaç vardır. Bu makale, engelliliğe yönelik tutum ölçeklerini kullanarak Türkiye'de yürütülen engelliliğe yönelik tutum araştırmalarını sistemantik olarak gözden geçirmeyi amaçlamaktadır. Bu amaçla, Türkçeye çevrilmiş veya Türkiye'de geliştirilmiş dört engellilik tutumu ölçeği belirlenmiştir: Yetersizlikten Etkilenmiş Kişilere Yönelik Tutum Ölçeği (YEKYTÖ), Engellilere Yönelik Tutum Ölçeği (EYTÖ), Özürlülere Yönelik Tutum Ölçeği (ÖYTÖ) ve Engellilere Yönelik Çok Boyutlu Tutum Ölçeği (EYÇBTÖ). Bu ölçeklerden birini kullanan 68 makale belirlenerek araştırma, örneklem, yöntem ve sonuç başlıkları altında incelenmiştir. Çalışmaların çoğunun tanımlayıcı ve yarı deneysel olduğu ve genel anlamda engellilere yönelik olumlu tutumlar bulunduğu gözlemlenmiştir. Sosyodemografik değişkenler için karşıt bulgular olmasına rağmen, engellilerle temas etmek ve engellilikle ilgili dersler almak olumlu tutumların artırılmasında etkili olabilir. Sınırlılıklar ve gelecekteki çalışmalar için öneriler tartışılmıştır.

INTRODUCTION

Understanding societal attitudes toward individuals with disabilities is crucial for addressing the significant disparities they face in various aspects of life, including education, employment, and social inclusion. Almost five million people in Türkiye (6.9% of the population) experience at least one form of disability (Ministry of Family and Social Services, 2022). Individuals with disabilities (IWDs) are quite disadvantaged in terms of accessing education and employment opportunities. The illiteracy rate was 23.3% for IWDs and 4.5% for non-disabled individuals. The employment rate for IWDs was 22.1%, while it was 47.5% for non-disabled people (TÜİK, 2015). In addition to the gap between disabled and non-disabled populations, the gender gap among disabled individuals was also notable. The rate of illiteracy among disabled women was 32.4%, whereas it was 10.9% among disabled men. Relatedly, only 12.5% of disabled women were employed, but the employment rate for disabled men was 35.4% (TÜİK, 2015).

Attitudes, specifically negative attitudes, are among the numerous factors that contribute to the education and employment gaps between disabled and non-disabled people (Dunn, 2019). The disparity in education and employment rates among disabled men and women strengthens the impact of attitudinal factors by comparing two disability groups that differ only by gender but are equally disadvantaged in terms of disability-related factors such as accessibility, physical environment, and available resources. The education and employment gap between disabled and non-disabled people may deceptively and solely be attributed to the aforementioned disability-related factors (e.g., Moriña, 2017). Nevertheless, none of these factors can account for the gender disparity between the two disabled groups. Despite schools, employment places, and resources being equally accessible to disabled men and women, men have higher education and employment rates than women with disabilities (TÜİK, 2015). The gender gap in education and employment statistics is also present for non-disabled individuals (TÜİK, 2022), and it is attributed to sexism, which is relevant to negative attitudes toward women (Swim & Hyers, 2009). Therefore, disability related factors such as accessibility, the physical

environment, and available resources alone cannot be sufficient to explain the gap between disabled and non-disabled individuals. Negative attitudes and ableism should definitely be considered (Glock & Kovacs, 2013; Moriña, 2017). Understanding attitudes toward IWDs is helpful to understanding not only education and employment issues but also the daily lives of this population (Nario-Redmond, 2019).

Attitudes consist of people's evaluations of an object that could be perceived as either positive or negative (Ajzen, 2001). An object may be associated with a single attitude, but it may also evoke multiple attitudes, even if they are at opposite ends of a continuum. Attitudes are not permanent constructs that exist for a person's whole life. They could be changed or transformed depending on their strength (Forgas, 2010; Visser et al., 2016). According to Ajzen (2001), as an attitude's strength grows, so does its persistence, resilience to change, and predictive power over behavior. Age plays an important role in determining the strength of an attitude. Attitude change becomes easier as one approaches middle adulthood; however, as one approaches late adulthood, their resistance to change increases (Albarracín & Shavitt, 2018). Attitudes are essential for studying prejudices, stereotypes, and discrimination (Ajzen, 2001; Plous, 2003; Stangor, 2016). Individuals' attitudes shape the direction in which they behave (Albarracín & Shavitt, 2018; Becker & Sibley, 2016).

Understanding disability entails comprehending society's attitudes toward disability (Hannon, 2007). Previous studies have found that attitudes toward IWDs vary by culture or society (Florian, 1982; Jaques et al., 1970; Westbrook et al., 1993). The culture, whether collectivist or individualist, exerts a significant influence on the formation of stereotypes, and it does so by shaping individuals' perspectives on the world and impacting the social framework in which they reside (Cuddy et al. 2009). For instance, Germans' attitudes were significantly more favorable toward individuals from different disability groups than Anglo-Australians (Westbrook et al., 1993). Comparing three countries, the US, Taiwan, and

Singapore, it was concluded that female US students held the most positive attitudes toward IWDs in the context of interpersonal relationships, while Taiwan exhibited the least favorable attitudes compared to the other two (Chen et al., 2002). Researchers stressed the importance of culture in these findings by explaining Taiwanese culture, which views disability as connected to parents' past and present sins.

Wang and colleagues (2021) performed a systematic review of 27 research articles on attitudes toward disability worldwide and reported that as people learn more about disability and/or have increased contact with disabled individuals, their attitudes become more positive. A comprehensive meta-analysis of 50 worldwide articles found that cultural elements significantly influence attitudes towards inclusive education. This indicates that attitudes are not isolated occurrences but rather shaped by the accumulated effects of socio-historical factors, which, in turn, impact both society and individuals in the formation of shared values. Hence, it is crucial to acknowledge that intervention programs demonstrated to be successful in one society or culture may not yield the same outcomes in other regions (van Steen & Wilson, 2020). It will be impossible for IWDs to blend in and receive acceptance from society as long as there are negative attitudes toward people with disabilities (Palad et al., 2016). Since the decisions, laws, policies, and services for IWDs are related to the attitudes towards them (Chen et al., 2002; van Steen & Wilson, 2020), it is important to understand these attitudes and how they can be modified in the case of Türkiye.

There are many studies in Türkiye on disability attitudes. The date of the first study using the attitudes toward IWDs scale in Türkiye goes back to 1988 (Özyürek, 1988). Since then, various scales have been adopted in Turkish or developed in Türkiye to assess people's attitudes toward disability. The scale that was preferred in the studies varied according to the context or research purpose. However, until now, there has been no study showing how often these scales were employed and how they were used in studies by examining them according to their various characteristics. Therefore, this study contributes by presenting a comprehensive review of both the most commonly used attitude scales toward IWDs and the

research using these scales. This review revolves around the question of where current research articles in Türkiye stand on the subject of scales measuring attitudes toward disabilities in general rather than specific disabilities. Only one previous review on this topic is known to the authors (İlhan-Ildız and Tezel, 2018). This paper differs from İlhan-Ildız and Tezel's review in that it is not only a systematic review but also focuses on the broader topic of disabilities as a whole rather than delving into specific disability categories.

This study aims to answer two main research questions about the studies focusing on attitudes towards IWDs in Türkiye:

- (1) What are the characteristics of the studies that were conducted using the four general disability attitude scales?
- (2) What do the results of these studies tell us about attitudes towards IWDs in Türkiye?

METHODOLOGY

Search Phase and Inclusion Criteria

The search for review articles is conducted in two phases. In the first phase, we searched for studies on attitudes toward IWDs. In the second phase, we searched for scales on attitudes towards disability (in general) that were not gathered during the first phase. The following criteria were applied for inclusion: 1) must measure attitudes toward IWDs; 2) must use Turkish versions of one of the determined attitude scales; 3) must be a published article or proceeding containing a study conducted in Türkiye; 4) must be written in Turkish or English; and 5) the population must be Turkish-speaking people. The selection of articles included articles from 1988, when the first attitude towards disability scale was adapted to Turkish (Özyürek, 1988), until the end of 2022. In addition, books, theses, and doctoral dissertations on attitudes toward IWDs were not included in the study.

In the first phase, articles were searched through Google Scholar with the keywords and their combinations "attitudes towards disabled/ disability, engellilik tutum, and engellilere yönelik tutum/lar", and 3880 research articles and thesis studies were obtained. A Web of Science search was conducted using the same keywords, resulting in a

total of 2295 articles. ERIC search was carried out through these keywords; 4083 results were obtained. In addition to these, citation indexes such as Scopus and SOBIAD and online research platforms like DergiPark, TR Dizin, and EBSCOhost were used ($N = 5$).

Web of Science results were refined according to the language (English and Turkish) and countries/regions (Türkiye and Turkey) criteria, and the final number of selected studies was 33 (2262 excluded). ERIC search results were filtered with regard to location (Türkiye) criteria, and the outcome was 62 studies.

During the screening process, articles were excluded according to inclusion criteria ($N = 975$). The remaining 305 studies sought retrieval, and three studies were not reachable. Studies conducted with special disabilities (including attitudes towards inclusive education and special groups such as mental retardation, deafness, visual impairments, autism, and dyslexia; special questionnaires for fields such as sports, health, and education; and irrelevant attitude research such as sexual education and assistive technologies; $N = 206$); qualitative research (including commentaries, comparative and descriptive research, and reviews; $N = 17$); two adaptation studies, and thesis studies ($N = 8$) were excluded. Also, the low-

quality articles whose methodology and instruments were not given in detail and the conference presentations whose analyses were not completed were excluded ($N = 6$), and the remaining 63 articles were retained for analysis.

In the second phase, we looked for attitude scales measuring explicit attitudes toward IWDs that have been used in studies with the Turkish-speaking population.

A total of 10 scales were identified. Scales measuring attitudes toward a certain type of disability (e.g., mental retardation [Ergin & Bozdağ, 2021]), targeting a special respondent group (e.g., teachers [Yaralı, 2015]), and a specific topic in general (e.g., disability and physical education [Karademir et al., 2018]) were excluded. The remaining four scales are: (1) *Attitude Toward Disabled Persons Scale Form-0* (developed by Yüker et al. (1970), and Özyürek (1988) adapted it into Turkish); (2) *Attitudes Towards Disabled Persons* (Dökmen, 2000); (3) *Attitudes Towards Persons with Disabilities Inventory* (Kaner et al., 2009); and (4) *Multidimensional Attitudes toward Persons with Disabilities* (developed by Findler et al. (2007) and adapted to Turkish by Yelpaze and Türküm in 2018).

Through hand-searching, we found five more articles using one of these scales. The final number of articles used in this review was 68 (see Figure 1 for the selection of articles and Figure 2 for the selection of scales).

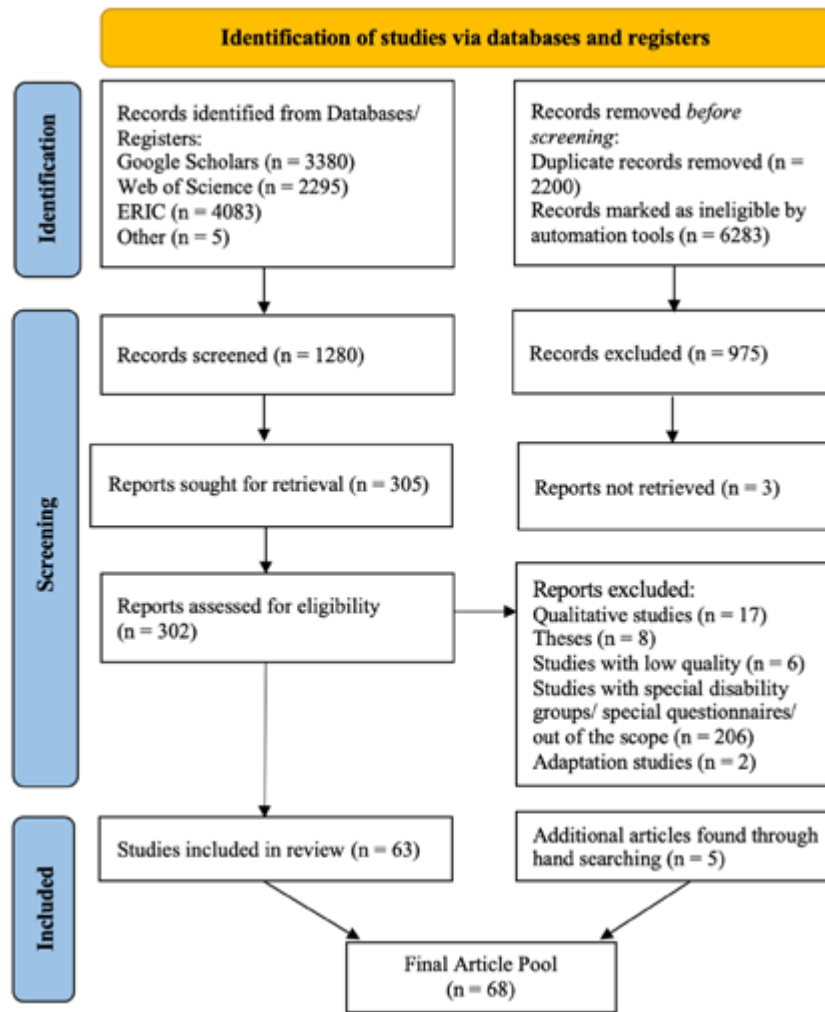


Figure 1. Article Extraction and Selection Process

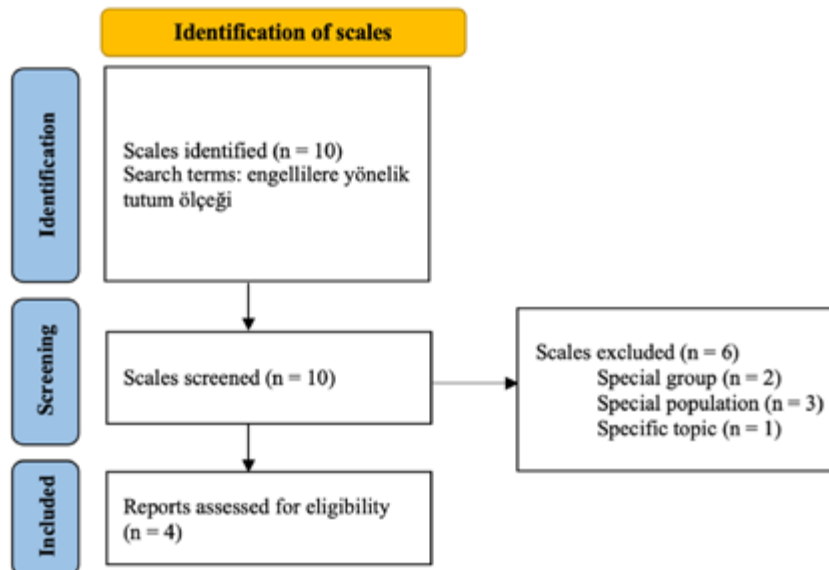


Figure 2. Selection of the Scales and Flow Diagram

Characteristics of the Instruments for Assessing Attitudes toward IWDs

1. Attitude Toward Disabled Persons Scale Form-0

Yuker, Block, and Young (1970) created the scale in its initial form. Özyürek (1988) translated and adapted it into Turkish. The test-retest reliability is .76 (Özyürek, 1988). The ATDP scale gives a single score as a result of the measurement of generalized attitude. The form contains 20 items on a 6-point Likert scale, extending from “I agree very much” (+3) to “I disagree very much” (-3), deliberately omitting a neutral zero point to minimize social desirability. The items include the vision of disabled people as if they are as normal as other people on cognitive, emotional, and social levels. In order to eliminate negative scores from the summed score, 60 points were added, resulting in a final score range of zero to 120. Higher scores indicate more favorable attitudes towards IWDs.

2. Attitudes Towards Disabled Persons (ATD)

The Attitudes Towards Disabled Scale is an attitude scale developed by Dökmen (2000) to measure individuals' attitudes toward IWDs. The validity and reliability studies were conducted, and Cronbach's alpha was reported as .91 and the split-half reliability as .83 by Dökmen. The ATD Scale has three sub-dimensions: “compassion (CP)” (13 items), “resource distribution (RD)” (four items), and “social value (SV)” (13 items). The Cronbach's alpha values for each subscale were found to be .80, .55, and .75, respectively. The 5-point Likert-type scale, containing 30 items, is rated on a scale from “strongly agree” (1) to “strongly disagree” (5). The scores varied between 30 and 150, with higher scores representing more positive attitudes towards IWDs.

3. Attitudes Towards Persons with Disabilities Inventory (APDI)

Kaner and her colleagues (2009) created the Attitudes Towards Persons with Disabilities Inventory (APDI) under the roof of the Republic of Türkiye Prime Ministry Administration for Disabled People (ÖZİDA). Cronbach's alpha value for the scale was reported as .88. It has 43 items and six subscales: Educational Environment

- EE, Interpersonal Relationships - IR, Family Life - FL, Working Life - WL, Personal Characteristics - PP, and Competency-Independent Living - CIL, and their Cronbach's alpha values were .54, .74, .71, .61, .75, and .82. The factor loads of the items on this scale change from .37 to .78. Participants choose from “strongly disagree” (1) to “strongly agree” (5) on this 5-point Likert-type scale to indicate the extent to which they agree or disagree with each statement. The lowest and highest scores that can be achieved from all of the APDI range from 43 to 215. Obtaining high scores on the measurement tool indicates positive attitudes towards IWDs.

4. Multidimensional Attitudes toward Persons with Disabilities (MAS)

For the purpose of constructing comprehensive measures of attitudes toward IWDs, Findler et al. (2007) developed the Multidimensional Attitude Scale (MAS). They classified attitudes into three dimensions: cognitive (10 items), affective (16 items), and behavioral (eight items). At the start of the assessment, participants receive a vignette depicting an encounter with a person in a wheelchair. They are then asked to respond to items based on how the individual in the scenario feels, thinks, or behaves. Although the vignette is about a wheelchair user, this scale is proposed to measure attitudes towards IWDs in general. Responses to items consist of a 5-point Likert scale changing from “not at all” (1) to “very much” (5). As opposed to other scales, higher scores represent negative attitudes toward disabled individuals on the MAS scale (note that Yelpeze and Türküm mistakenly wrote in their paper that higher numbers mean positive attitudes toward disabled individuals). The minimum score is 34, and the maximum score is 170 (Yelpeze & Türküm, 2018). The reliability score for the affect scale is .90, the cognition scale is .88, and the behavior scale is .83. Yelpeze and Türküm adapted the MAS scale to Turkish in 2018. The Turkish version has 31 items. The Cronbach's alpha value for the Turkish version of the general scale is .90; for the affect, cognition, and behavior dimensions, the Cronbach's alpha values are .88, .89, and .84 respectively (Yelpeze & Türküm, 2018).

RESEARCH FINDINGS

In order to answer our first research question, we examined publication language and year, sample characteristics, designs, preferred statistical analyses, and psychometric properties (if presented). We presented the results based on the specific disability attitude scale. The response to the second research question relies on the findings from the studies, irrespective of the scale chosen for measuring attitudes towards disabilities.

Attitude Toward Disabled Persons Scale (ATDP)

There are 36 research articles identified on the ATDP questionnaire. Among these research studies, 24 articles are written in Turkish, and 11 are in English. One article is the same research published in both languages, so only the first version is included in the review (Gürsel, 2006). Thirteen of the articles were published after 2020; 16 articles were published between 2014 and 2019; five articles were published in 2006–2012; and two articles were published in 1995 and 1996.

The samples used in the research mostly depended on university students ($N = 23$); three studies included nurses or people working in the health industry; three studies included high school students; one study had a sample of people older than 18 years old; and one study included people according to whether they had a disabled sibling or not. As a general trend, women participated in research more than men did. The minimum sample size is 30, and the maximum is 3863 people. Moreover, in seven studies, the data was collected online; in 17 studies, the data was collected in-person; and the rest do not provide details regarding the data collection method.

The research designs used in the articles varied. There were 12 quasi-experimental studies, two experimental studies, and 19 descriptive studies. The remaining articles employed embedded design ($N = 3$) and explanatory sequential design ($N = 1$).

In the articles, statistical analysis was conducted with t-tests for dependent or independent samples, one-way ANOVA, regression, and chi-square analysis. One study performed ANCOVA (Gürsel, 2006). 14 studies gave the Cronbach's alpha value of the ATDP scales for their

sample. Only one study conducted factor analysis for the ATDP scale (Girli et al., 2016).

Measured variables were sociodemographics such as age, gender, family income, family size, the level of education, having a disabled relative or sibling, having a disabled friend, having an education on disability, birth order, being a parent or not, marital status, employment, social security, residential place (rural or urban), department, physical activity, and education level of the parents. For quasi-experimental and experimental research, manipulation generally includes activities that educate or raise awareness, such as watching a movie about disability, taking a course on disability, or listening to a panel speech by a disabled person. There are also other variables assessed in different studies, such as empathy, mindfulness, well-being, anxiety level, and alexithymia.

Overall, the results of the 36 articles conducting studies with the ATDP scale showed that attitudes towards disabled individuals are positive or moderately positive (see also Kürkçü et al., 2016; Özcan et al., 2016). Descriptive studies presented mixed results on attitudes depending on the sex and socio-economic status of the participants. Some of the studies have shown that women tend to exhibit more favorable attitudes compared to men (Altıparmak & Yıldırım-Sarı, 2012; Paçal et al., 2021; Yıldırım-Sarı et al., 2010), but there are also studies that found male participants to have higher scores on the ATDP than female participants (Altunhan et al., 2021; Girli et al., 2016; Özdemir & Karadağ 2021; Şahin & Bekir, 2016; Uçar et al., 2019). In terms of socioeconomic status, there is both research that concludes that people from low socioeconomic status (Altıparmak & Yıldırım-Sarı, 2012) and people from high socioeconomic status (Yıldırım-Gürkan et al., 2020) have higher scores on the ATDP. Even though research has dominantly found that having IWD within family, a close environment, being a social-psychological worker, or developing empathetic feelings towards disabled individuals increases positive attitudes (Geçkil et al., 2017; Özdemir & Karadağ, 2021; Paçal et al., 2021; Şimşek et al., 2020; Uçar et al., 2019; Uysal et al., 2014), other studies have found the opposite results (Çelik et al., 2017; Kürkçüoğlu et al., 2021).

Furthermore, the experimental and quasi-experimental studies found that the intervention increased students' attitudes towards IWDs. Only three of the intervention studies found no difference before and after the intervention (Çitil et al., 2018; Fethi, 2015; Nalbant, 2018).

Attitudes Towards Disabled Persons (ATD)

There were eight articles that used the ATD Scale, two of which were written in English (Paksoy-Erbaydar et al., 2013; Şahin & Akyol, 2010), and the rest were written in Turkish. Five studies were published in 2018, and after 2018, three articles were published between 2010 and 2016. For sample characteristics, participants consist of university students; only in two studies (Baykan et al., 2018; Paksoy-Erbaydar, 2013) was the sample drawn from academics working at a state university and employees working in a municipality. There is no gender dominance in gender distribution among all studies. While women are the majority in half of the studies, men are the majority in the other half. Six studies using this scale were designed as descriptive studies; the remaining two studies were designed as experimental and quasi-experimental studies. The t-test and ANOVA were the most commonly used statistical analyses for this scale, and Pearson correlation and chi-square analyses were used once. Four studies reported Cronbach's alpha values for their own studies. Paksoy-Erbaydar and colleagues (2013) also performed factor analyses.

As an overview of descriptive studies using the ATD Scale, findings demonstrate statistical differences between attitude scores for different demographic variables.

Women have more positive attitudes towards IWDs than men (Baykan et al., 2018; Gedik & Toker, 2018; Karataş, 2020; Şahin & Akyol, 2010), and individuals who have contact or interaction with IWDs, specifically among family member(s) or friend(s), have significantly more positive attitudes towards IWDs (Gedik & Toker, 2018; Karataş, 2020; Paksoy-Erbaydar et al., 2013; Sezer, 2012; Şahin & Akyol, 2010). Moreover, Şahin and Akyol (2010) addressed the importance of having prior knowledge about disability on attitudes. Vural-Batık (2018) carried out a study to investigate whether the attitudes of psychological counselor candidates towards IWDs undergo changes by

the end of their undergraduate education. Interestingly, the scores the students got in the fourth grade were significantly lower than the scores they got in the first year.

In addition to descriptive studies, an experimental study in which university students received information about IWDs and interacted with them demonstrated that interacting with IWDs had a positive effect on developing positive attitudes towards them (Sezer, 2012). Top (2018), on the other hand, examined whether giving a special education course has an effect on the empathic disposition of the students and their attitudes towards IWDs; however, no significant impact of this education was found. Overall, people have above-average positive attitudes towards individuals with disabilities.

Attitudes Towards Persons with Disabilities Inventory (APDI)

A total of 19 articles using the APDI were reached; five of them were written in English, and the remaining articles were written in Turkish. Four studies were published in 2015 or before 2015, and 15 articles were published between 2017 and 2021. Considering sample characteristics, participants mostly consist of university students; the sample of some studies (Apaydın & Barış, 2021; Küçükşen et al., 2017) was made up of healthcare professionals; one study drew participants from teachers (Daşbaşı et al., 2013); and one study gathered data from academic and administrative personnel working at the university (Şahin, 2018). Furthermore, in most of the studies, the number of female participants was higher than that of male participants.

Two studies using this scale had a quasi-experimental study design; one study had a mixed method with embedded design; and the remaining 16 studies were descriptive studies. In terms of preferred statistical analyses, t-tests, ANOVAs, and Pearson's correlation analyses were the most commonly used statistical analyses in these studies. Besides, the Mann-Whitney U test, Kruskal-Wallis-H, Wilcoxon signed ranks, Spearman correlation, and chi-square analyses were rarely used.

Only two studies performed both confirmatory and exploratory factor analysis (Akyıldız, 2017; İçağasıoğlu-

Çoban et al., 2017), and nine studies reported Cronbach's alpha values for their sample. All studies asked participants about their socio-demographic information, such as age, gender, department, or marital status, and specific questions regarding participants' occupations, such as the status of students with disabilities in their classrooms. Besides questions about their experiences when encountering IWDs, such as their status as having a disabled friend/family member, or their viewpoints related to IWDs, such as their opinion on the education of persons with disabilities in the same school/class as other individuals, or whether there is prejudice towards persons with disabilities in society, Şahin and Güldenoğlu (2013) specifically asked participants whether they had followed any publications or taken any courses on this topic.

Almost all studies using the APDI demonstrated that attitudes toward IWDs were positive, regardless of the research methods they adopted. There are contradictory results concerning demographic factors like age, gender, educational background, or income level. For example, while some studies show that people with higher income levels adopt more positive attitudes towards IWDs (Çakırer-Çalbayram et al., 2018; Şahin, 2018), other research has indicated that individuals with lower income levels tend to exhibit more favorable attitudes towards IWDs (İçağasıoğlu-Çoban et al., 2017). In terms of the departments, some studies found a significant difference in attitudes (Aşık et al., 2021; Çakırer-Çalbayram et al., 2018; Ünal & Yıldız, 2017), while others did not (Karataş, 2020). There is an interesting finding related to the departments of students is that while İçağasıoğlu-Çoban and their colleagues (2017) revealed that physiotherapy and rehabilitation department students had significantly higher scores on the total scale and subscales, Aşık et al. (2021) showed that the physiotherapy and rehabilitation department students had the lowest scores.

Moreover, being a woman (Akyıldız, 2017; Aşık et al., 2021; Çavuşoğlu et al., 2014; Gençtürk & Korkut, 2020; Karataş, 2020), being young (Apaydın & Barış, 2021; Daşbaşı et al., 2013; Şahin, 2018), and possessing social network consisting of friends or family members with disabilities (Akyıldız, 2017; Apaydın & Barış, 2021; Gençtürk & Korkut, 2020; Karataş, 2020) are related to

the positive attitudes toward IWDs. Interestingly, Daşbaşı and their coworkers (2013) revealed that the attitudes of teachers who do not have students with disabilities in their classes towards students with disabilities are significantly more positive than those of teachers who have students with disabilities in their classes. Intervention studies showed that working with IWDs or attending a class, education, or program about disability and IWDs resulted in higher scores on the attitude scale, indicating positive attitudes towards IWDs (Bucuka, 2015; Çavuşoğlu et al., 2014; Malak-Akgün, 2021; Özkan et al., 2020; Şahin & Güldenoğlu, 2013).

Multidimensional Attitudes toward Persons with Disabilities (MAS)

Among the five articles using MAS, only one (Vezne & Sardohan-Yıldırım, 2022) was written in English. After the adaptation of MAS, five articles employing this scale were published in 2021 and later. Two of these articles were published in 2021, and the rest were published in 2022. Participants were recruited from different areas of Türkiye. Studies using the MAS scale recruited more women than men in their studies. The participants in the studies are university students or young adults. In addition, the research designs were descriptive and convergent-parallel. The preferred statistical analyses include a t-test, linear regression, and ANOVA.

All but one article (Keklicek & Ünsar, 2021) identified Cronbach's alpha for their data, and none of them employed factor analysis. Variables that were looked at in the studies were gender, taking a special education course, taking a health education course, type of high school graduation, type of college, and special communication ability. Studies included socio-demographic information forms. Sarı et al. (2021) also measured communication ability, and Vezne and Sardohan-Yıldırım (2022) asked participants to write their memories about people with special needs.

The results of the studies with MAS revealed that while participants' cognition dimension was positive, their affective and behavioral dimensions presented mixed results. The behavior dimension was found negative in some studies (Arisoy, 2022; Sarı et al., 2021; Vezne &

Sardohan-Yıldırım, 2022), whereas it was found positive in others (Keklice & Ünsar, 2021; Subay et al., 2022). Unfortunately, studies using the MAS scale evaluated higher scores as positive attitudes, whereas in the Findler et al. (2007) study, higher scores corresponded to negative attitudes. The confusion regarding the meaning of higher scores on the scale could have two reasons. Firstly, Yelpaze and Türküm (2018) showed that a Likert-scale 1 to 5 corresponds to “not at all” to “very much.” However, they do not mention the Turkish translation of the scale. If they translated the Likert in the same order, it should be plausible to conclude that agreeing on negative items means positive attitudes toward disabled people. Another alternative explanation could be that the reverse items in the study of Findler et al. (2007) may be understood differently. They may reverse the negative items so that the higher scores correspond to positive attitudes towards the disabled. Still, this research requires further explanation of how they evaluated the higher scores.

Regarding the second research question, the results of the studies showed that, overall, people’s attitudes towards disability were positive. Even if there are opposing results (such as Fethi, 2015; Nalbant, 2018; Top, 2018), most of the research found benefits in implementing a course, lecture, video, or poster presentation or developing awareness activities to increase the attitudes of the participants. Descriptive variables such as age, gender, and socioeconomic status do not determine attitudes towards disabilities. Having a disabled person in a close environment or having interactions with disabled individuals increases positive attitudes (see also Çelik et al., 2017; Daşbaşı et al., 2013; Kürkçüoğlu et al., 2021). Special education, increased interaction with disabled individuals, and media support could be beneficial to developing positive attitudes toward the disabled.

There were 15 quasi-experimental studies, three experimental studies, and 45 descriptive studies. The remaining articles employed embedded design (N = 3), convergent parallel design (N = 1), and explanatory sequential design (N = 1). According to the results of all the intervention studies that were included in this review, 17 of them found a positive effect of the interventions on attitudes toward disability. The rest of the studies did

not find a difference before and after the intervention. The findings of the experimental and quasi-experimental studies indicate that, in general, special courses, texts, empathy-developing activities, mindfulness, and well-being-developing applications designed to raise awareness of IWDs resulted in positive attitude change.

CONCLUSION

In this study, research articles on attitudes toward IWDs were reviewed on the basis of four scales that assess attitudes toward general disability in Türkiye. Two of the scales were developed by Turkish researchers, and the other two were adopted into Turkish. Practitioners, researchers, and teachers from a variety of fields—including health, education, and sports—utilized the questionnaires in their research. This study aimed to contribute insights into research on attitudes toward IWDs and present an inclusive review of measurement tools utilized in disability studies in Türkiye.

Research on attitudes toward disability tends to use a unidimensional measurement of attitudes more than other assessments. Even though there is research on attitudes toward disability conducted with qualitative methods, which are beyond the scope of this paper, there is no assessment of the implicit attitudes in Turkish literature (Efendioğlu & Emir Öksüz, 2024). Explicit measures such as scales have restrictions because they create a risk of social desirability bias. Since the debate around the reliability and validity of implicit association tests continues (Cameron et al., 2012; Gawronski et al., 2006; Greenwald et al., 2015), it could be valuable to study attitudes with multidimensional measures or with different methods.

The majority of the reviewed research does not specify how the sample size is determined. Our research also showed that most of the research reviewed in this article recruited university students. Considering the decrease in the strength of attitudes towards middle adulthood (Ajzen, 2001), it will be valuable for future studies to conduct research on different age groups, such as children or late adults. Additionally, research has found that even though students take special education or disability courses, their positive attitude may decrease during their final years

(Acak et al., 2016; Vural-Batık, 2018). Therefore, assessing attitudes over time could be beneficial. The majority of the research recruited non-disabled participants. Moreover, 67% of the research reviewed in this paper involved more women than men. Considering the overall results that women had more positive attitudes towards IWDs (Paçal et al., 2021; see also Girli et al., 2016), it is important to conduct studies by balancing gender within samples. People who had close contact with disabled individuals generally had more positive attitudes (Uysal et al., 2014; see also Çelik et al., 2017; Daşbaşı et al., 2013; Kürkçüoğlu et al., 2021). Most of the research is conducted in health and education, which are the fields where people are already in some sort of contact with IWDs. However, as Şimşek et al. (2020) concluded, people who do not have close contact with IWDs may hold more negative attitudes. Additionally, the quality of contact is quite important. Therefore, having some type of contact does not guarantee positive attitudes all the time. In some cases, contact may result in negative attitudes, and its impact can be stronger than positive ones (Aberson, 2015). Future research should include samples from other fields, such as engineering and data analysis, and focus on the quality of contact to get a comprehensive view of the attitudes towards disability in the population.

As a general trend in reviewed research articles, the method is confined to the most basic analysis. Only four articles among the 68 reviewed research articles conducted factor analysis (Akyıldız, 2017; Girli et al., 2016; İçağasioğlu-Çoban et al., 2017; Paksoy-Erbaydar et al., 2013). Although attitudes are the subject of psychology, especially social psychology, they have attracted the attention of researchers in the fields of sports, educational sciences, and health more than the psychological sciences.

The review results showed that descriptive research dominates disability and attitude research in general. Among the intervention studies, most research is focused on special education courses and pre- and post-test designs.

Adding to the age and fields of the participants discussed above, the results of studies on the basis of scales showed that while unidimensional attitude scales found positive attitudes towards disability, Sarı et al. (2021) found

that even if the thoughts of the participants towards IWDs are positive, their behaviors and emotions are not. Unidimensional scales assess mainly the thoughts of people; therefore, it is important to understand other dimensions to gain a further understanding of the discrimination and suppression of disabled individuals in society. We can conclude that disability attitude research in Türkiye still has room for improvement to lead the development of intervention programs and countrywide policies.

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Author Contributions

All of the authors contributed to the research's conception and design.

Availability of Data and Materials

The systematic review table, containing summaries of selected articles and assessed determinants, is available at the link below: https://osf.io/dr3ce/?view_only=51b3de25e555461582bd400621943ef0