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Stigmatizing Attitudes, Beliefs, and Actions Scale Toward Abortion: A Turkish Validity and Reliability Study

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In this methodological study, the researchers aimed to test the validity and reliability of the Turkish version of the Stigmatizing Attitudes, Beliefs, and Actions Scale (SABAS) toward abortion, which is an 18-item Likert-type scale. It is important to determine the views and attitudes of individuals toward abortion in reducing stigma toward abortion. The sample consisted of 243 university students in Turkey who met the inclusion criteria of the study. The data were collected between July and October 2020 using a personal information form and the SABAS. The data were analyzed using IBM SPSS Statistics 22 and SPSS Amos 24. The mean age of the participants was 20.65 ± 1.51 . The content validity index of SABAS was found as 0.98. The item-total score correlation coefficients of the scale ranged from 0.448 to 0.815. The Cronbach's α coefficient of the scale was 0.907. In the confirmatory factor analysis, the goodness-of-fit indices of the scale showed an acceptable fit. After removing four items of SABAS, it was determined that the 14-item form was valid and reliable in evaluating stigmatizing actions, beliefs, and attitudes toward abortion.

Keywords: abortion, reliability, stigma, Turkey, validity

Although abortion is an essential part of reproductive and sexual health services, many women face obstacles to accessing safe abortion services (Fathalla, 2020). It is known that only 35 of 1,000 women aged 15-44 in the world can access abortion services every year (Rehnström Loi et al., 2019). Many social, cultural, and legal factors play a role in the inability of women to receive safe abortion services (Seymour et al., 2019). While access to safe abortion procedures is considered a basic human right, approximately half of all abortion procedures worldwide are not safe (Gelman et al., 2017). Women face the risk of being stigmatized while seeking/receiving abortion services. Abortion stigma is defined as a common understanding that abortion is morally wrong or socially unacceptable (Martin et al., 2014). Although abortion stigma is common around the world, the manner it is expressed may vary depending on social, legal, religious, and cultural variables, as well as individual factors such as age, marital status, and religion (Hulme-Chambers et al., 2018). The meaning attributed to abortion by society is very effective in women's decisions to have an abortion. Abortion stigma negatively affects women in physical, emotional, social, and financial aspects (Cockrill & Biggs, 2018). Abortion stigma may cause remorse, anger, sadness, guilt, and stress in women. The attitude of society against abortion may be affected by the

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meaning attributed to motherhood and cultural expectations, women's responsibility for birth control, the unacceptability of adolescent sex/extramarital sex, and religious beliefs (Makenzius et al., 2019).

Texts of history of medicine and literary texts also include writings about the consideration of preventing fertility as an offense in the legal, religious, or social sense (Bader, 2019). In Turkey, induced abortions were legalized by the Population Planning Law, adopted in 1983. This law enabled induced abortion during the first 10 weeks of pregnancy for every woman in need. The fact that some women insist on unsafe methods despite being legally allowed to get an abortion is striking in terms of the presence of a sociocultural obstacle such as stigma or financial burden (Yapıcı et al., 2021).

In societies where abortion is reproved and condemned, women who decide to have an abortion are concerned that their decisions will be revealed, and therefore, they may resort to unsafe abortion methods or have to maintain a pregnancy they do not want (Rehnström Loi et al., 2019). After abortion services were legalized in 1996 in South Africa, a reduction of 91% in abortioninduced maternal losses was observed between 1996 and 2000 (Jewkes et al., 2005). According to the Turkish Population and Health Survey (2013) data, the abortion rate, which was 18% in 1993, declined to 5% in 2013. According to the Turkish Population and Health Survey (2018) data, 15% of married women experience induced abortion at least once. It is important to determine the opinions and attitudes of women who have experienced abortion, society, and health professionals in reducing the stigma of people toward abortion (Yılmaz & Şahin, 2020). This study aimed to test the validity and reliability of the Turkish version of Stigmatizing Attitudes, Beliefs, and Actions Scale (SABAS), which can be used to evaluate actions, beliefs, and attitudes toward abortion.

The authors have no conflict of interest to declare.

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Method

Design

The data were collected online between July and October 2020, and maximum variety was aimed in the study. The study was announced on social networks such as Facebook, Twitter, and Instagram. Students who met the sampling criteria were sent the Google Survey via email, the purpose and content of the study were explained, and the participants confirmed being informed. A personal information form and the SABAS were used in data collection. For scale studies, it is recommended that the sample size is 5–10 times the number of items in the tested scale. The sample of this study included 243 university students for determining the validity and reliability of the 18-item SABAS (Makenzius et al., 2019; Shellenberg et al., 2014) in Turkish. It took each participant 15 min on average to answer the survey.

Participants

The study included university students who lived in Turkey, had internet access, had no communication barriers, were over 18 years old, and voluntarily agreed to participate in the study. As the original sample consisted of high school seniors, university students were selected as the sample for the study.

Data Collection Tools

Personal Information Form

The form was prepared by the researchers in line with the literature. The form was composed of 14 questions about the participants' sociodemographic characteristics, sexual activity status, and use of contraception (Makenzius, 2020).

SABAS

The scale was developed by Shellenberg et al. (2014) and validated among secondary school youth in Kenya by Makenzius et al. (2019), as well as among health care providers in Kenya (Håkansson et al., 2018) to determine stigmatizing beliefs, attitudes, and actions regarding abortion in Kenya. The 18-item scale has three dimensions: "negative stereotyping of women" (eight items), "exclusion and discrimination" (seven items), and "fear of contagion" (three items). The minimum score that can be obtained from the 5-point Likert-type scale (1 = strongly disagree, 2 = disagree, 3 = unsure, 4 = agree, 5 = strongly agree) is 18, and the maximum score is 90. There are no cutoff points and no inversely scored items on the scale. Higher scores show more stigmatizing attitudes, beliefs, and actions toward abortion.

Data Analysis

The mean and percentage values of the sociodemographic data were calculated. The process of adapting the scale to the Turkish language included the following steps: "translation, back translation, expert opinion, and pilot study" (International Test Commission, 2017). At the beginning, the original scale was translated from English to Turkish by a bilingual translator. After the researchers compared and evaluated the translated forms for the Turkish context by retaining the original meaning, the Turkish Likert-type version was independently translated into English by another bilingual translator. In the second step, an expert committee evaluated the items, and the content validity indices (CVI) of the scale were calculated using the Davis technique (Davis, 1992). Afterward, the number of experts who chose (A) and (B) was divided by the total number of experts for each item as proposed by Davis. The CVI value of the scale was calculated to be 0.98. To facilitate the understanding of the scale, it was considered appropriate to add the word "abortion" to the Turkish name. Finally, a pilot study was conducted with 30 students. Four steps were followed in the validation process. The first step involved item analysis (International Test Commission, 2017). In the second step, the Kaiser-Meyer-Olkin (KMO) sample adequacy test and Bartlett's test of sphericity were used to assess the suitability of the correlation matrix for factor analysis (Polit & Beck, 2012). Confirmatory factor analysis (CFA) was used to confirm the original construct. The third step covered testing the internal consistency of SABAS and its subscales (Figure 1).

Ethics Approval

Ethical permission (Number: 74555795-050.01.04, June 18, 2020) was given by the Republic of Turkey Istanbul University Cerrahpaşa Non-Interventional Clinical Research Ethics Committee. Written permission was obtained by email from Makenzius et al. (2019), who developed the ASABA (Adolescent Stigmatizing Attitudes, Beliefs, and Actions) scale, to adapt the scale to Turkish. The participants were emailed the purpose and content of the study, and they provided informed consent.

Results

Descriptive Characteristics of the Participants

The mean age of the participants was 20.65 ± 1.51 (min: 18; max: 26), 68.3% (n = 166) of the participants were female, and 31.7% (N = 77) were male. It was found that 38.8% of the participants were in their first year of study. The mothers of 34.6% of the participants had primary school degrees, and the fathers of 39.1% had university degrees. While 20.2% (n = 49) of the participants studied health sciences; 11.5% (n = 28) studied law; and others studied in departments such as engineering, architecture, business, and psychology. The incomes of 51.4% were equal to their expenses, and 54.7% were born and raised in western parts of Turkey. All participants were single, 52.3% (n = 127) lived with their parents, and 45.7% had romantic partners. It was determined that 28.0% of the participants (n = 68) were sexually active, and 33.7% (n = 82) used a contraception method. Among the participants, 35.4% used condoms and 11.9% used oral contraception, whereas 16% used the withdrawal method as contraception.

Psychometric Measurements

Content Validity Index

After translation, expert opinions were obtained to determine the linguistic validity of the scale. The method proposed by Davis (1992) was used to calculate the CVI of the scale. The scale was sent to 25 specialists, consisting of specialist nurses and

A TURKISH VALIDITY AND RELIABILITY STUDY

Figure 1 Study Process



academics, 14 of whom provided feedback. Expert opinions were analyzed using CVI. The validity rates of the items varied between 0.85 and 1.00. The total CVI of the scale was calculated as 0.98. While the original Item 5 of the scale had a coefficient of 0.92, Item 15 had a coefficient of 0.85, and the other items had coefficients of 1 each. After the researchers made revisions in accordance with the expert opinions, the scale items were finalized.

Pilot Study

A pilot study was conducted with 30 participants who were not part of the sample to determine which SABAS items were suitable and which were problematic in terms of psychometric characteristics. In the reliability analysis of the pilot study data, the Cronbach's α coefficients were 0.82 for the overall scale and between 0.81 and 0.71 for the subscales. These coefficients from the pilot study were higher than the recommended reference value ($\alpha = 0.70$) in the literature (Tavsancıl, 2014). The scale for the pilot study was sent to and filled out by students who agreed to participate. After it was completed, the pilot study participants were asked to provide feedback on items they had difficulty understanding. For this purpose, video conferences were held with the participants on Zoom. Then, the items found problematic by the participants were considered. After the pilot study, the researchers reviewed the items in accordance with the opinions of experts and students and clarified the meanings of the items.

Confirmatory Factor Analysis

CFA was performed on data from the 243 participants in the main sample to assess the goodness-of-fit values of the original construct of the SABAS, consisting of three subscales and 18 items. In this analysis, the lowest factor load values were found to be 0.70 for the first subscale, 0.65 for the second subscale, and 0.77 for the third subscale. However, the goodness-of-fit indices were: $\chi^2/df =$ 7.070, root-mean-square error of approximation (RMSEA) = 0.13, goodness of fit (GFI) = 0.66, comperative fit index (CFI) = 0.69, and incremental fit index (IFI) = 0.69. Revisions that were made in line with the recommendations for change did not provide sufficient improvement in these indices (Table 1).

Item-Total Correlation Analysis

When it was found that the goodness-of-fit indices did not confirm the original scale construct, items with poor correlation with the overall scale were removed. The analysis conducted for this purpose showed that the item-total correlation values of all items except for one were above 0.40. Item 5 with a correlation coefficient of 0.386 was removed from the scale. In the item analysis, none of the 17 remaining items had a factor load value below 0.40. The analyses continued with these 17 items.

Exploratory Factor Analysis

To assess whether the sample size was sufficient and whether the factor correlation matrix was suitable for factor analysis, the KMO sampling adequacy measurement (KMO) and Bartlett's test of sphericity were used. The results were found as follows:

Table 1	
Goodness-of-Fit	Indices of SABASA $(N = 150)$

SABASA	χ^2/df	RMSEA	GFI	NFI	CFI	IFI
Fit values ^a						
Normal	≤2	≤0.05	≥0.95	≥0.95	≥0.95	≥0.95
Acceptable	≤5	≤ 0.08	≥0.90	≥0.90	≥0.90	≥0.90
Original model	8.97	0.13	0.66	0.66	0.69	0.69
Adjusted model	2.79	0.08	0.88	0.91	0.93	0.92

Note. SABASA = Stigmatizing Beliefs, Attitudes, and Actions Scaletoward Abortion; RMSEA = root-mean-square error of approximation; GFI = goodness of fit; CFI = comperative fit index; IFI = incremental fit index; NFI = normed fit index.

^a According to Kline (1994).

KMO = 0.869, χ^2 = 3103.425, df = 105, and p < .001. Principal component analysis and exploratory factor analysis with varimax rotation showed that the 17 items were collected under three factors, each with an eigenvalue of higher than 1, and these three factors explained 72.493% of the total variance in the scale score (Table 2). The percentages of the total variance explained by the factors were 51.537% for the first factor, 11.766% for the second factor, and 9.190% for the third factor. Items 12 and 13 were transferred from the second subscale to the first, as they had high factor load values in the first subscale. Items 2, 14, and 15 were removed from the scale during factor analysis because they had high factor load values in multiple factors at the same time. The analyses then continued with 14 items.

Confirmatory Factor Analysis

CFA was applied once again to assess the goodness-of-fit indices of the newly obtained construct of the scale. Error covariances were drawn between Items 3 and 6 and between Items 7 and 8 (Figure 2). With all these changes, the factor load in the subscales was between 0.57 and 0.93 (Figure 2). The goodness-of-fit indices were determined as: $\chi^2 = 201.494$, df = 72, RMSEA = 0.08, GFI = 0.88, normed fit index (NFI) = 0.91, CFI = 0.93, and IFI = 0.92 (Table 1).

Internal Consistency Analysis

After removing four items from the 18-item scale, the Cronbach's α internal consistency coefficients were found 0.907 for the overall 14-item scale and between 0.914 and 0.777 for its subscales (Table 3).

The mean total score obtained from the scale was 18.30 (SD = 6.07). The analysis of the subscale mean scores showed that the negative stereotyping of women (M = 11.22, SD = 4.78) subscale had the highest mean score, and the exclusion and discrimination (M = 3.26, SD = 0.81) subscale had the lowest mean score.

Discussion

Measuring and understanding stigmatizing actions, attitudes, and beliefs toward abortion in reducing unmet family planning rates is crucial (Nove et al., 2014). Although the Constitution of the Republic of Turkey allows women to access safe abortion, social attitudes toward women who have abortions are mostly negative. Stigma toward abortion, obstacles to safe abortion, and problems with access to modern contraceptives remain. The rate of unmet family planning needs in the Turkish Population and Health Survey (2018) rose from 6% in 2013 to 12% in 2018.

Linguistic and Content Validity

The Turkish version of SABAS was assessed by 14 experts in content validity analysis using Lawshe's technique (Lawshe, 1975). No item was removed from the scale in this step, since none of the items had acceptability rates below 0.80. According to expert recommendations, the word "abortion" was added to the title of the scale.

Table 2		
Results of Reliability	and Structural	Analyses

Factor no.	Factor name	Items	% of explained variance
F1	Negative stereotyping of women	1, 3, 4, 6, 7, 8 12, 13	51.537
F2	Exclusion and discrimination	9, 10, 11	11.766
F3	Fear of contagion	16, 17, 18	9.190
SABASA total	C		72.493

Note. SABASA = Stigmatizing Beliefs, Attitudes, and Actions Scale toward Abortion.

Confirmatory Factor Analyses

In this study, confirmatory factor analyses were performed to test the construct determined in the original study. In the psychometric analyses of scales, the goodness-of-fit of a model is decided according to various indices. There are many indices that can be referred to in these analyses, but there is no absolute consensus on what values should be reported. The chi-squared/degrees of freedom index was reported in this study, as well as RMSEA, GFI, CFI, NFI, and IFI, which are among the most commonly used indices. Although some flexibility is allowed in goodness-of-fit indices, in general, the desired values are as follows: χ^2/df : lower than 2 is desired, lower than 5 is acceptable; RMSEA: lower than 0.05 is desired, lower than 0.08 is acceptable; GFI: higher than 0.95 is desired, higher than 0.90 is acceptable; (Kline, 2013). The results of this study showed that the original construct of the scale did not have an acceptable fit in this sample.

Item-Total Correlation Analysis

A correlation coefficient below 0.30 indicates that an item is inadequate, whereas a value above 0.40 indicates that it has good distinguishing characteristics (Tavakol & Dennick, 2011). For this reason, in this study, an item with an item-total correlation coefficient of 0.386 was removed from the scale.

Exploratory Factor Analysis

Since the goodness-of-fit indices found in the CFA conducted on the original construct of the scale were not acceptable, the 17 items remaining after the item-total correlation analysis were considered a single item pool and subjected to exploratory factor analysis to explore the factor structure of the Turkish version of the scale. Before a factor analysis, various tests are performed to assess whether the sample is sufficiently large. The KMO sampling adequacy test was used in this study. Polit and Beck (2012) reported that factor analysis can be applied if the KMO test result is higher than 0.80, indicating good sampling adequacy (Kaiser, 1974). The higher the total variance explained by the factors as a result of the analysis, the stronger the factor structure of the scale. While at least 30% of the total variance should be explained in single-factor scales, this ratio should be higher in multifactor constructs (Ayre & Scally, 2014).

The three factors obtained in this scale explained a large proportion of the total variance; therefore, the factor structure identified in this study can be considered suitable. Three basic criteria are taken into account in factor analyses. The first is that the items must have high factor load values for the factor to which they belong. Although the literature does not define limits for factor load values that explain the correlations of items with factors, Akgul (2005) reported that the lowest acceptable factor load value is 0.30. As the factor loads of all items were above 0.30 in this study, no item was removed after the factor analysis. However, the second criterion is that the items have high load values for one factor and low load values for other factors; if this criterion is met, it may be possible to investigate independent constructs (Koenig & Al Zaben, 2021). Although it is debatable how much difference can be ignored, the difference between the load values of an item under different factors is expected to be as high as possible. The difference between the two factor loadings must be at least 0.10 (Buyukozturk, 2011). During the factor analysis in this study, Items 2, 14, and 15 were removed from the scale as they had simultaneously high factor loads for multiple factors, the difference between these overlapping factor loads was less than 0.10, and the analysis continued with the remaining 14 items.

Confirmatory Factor Analysis

In this step, no item was removed because the factor loads of the items were well above 0.40, which was previously specified as the threshold value. Items 12 and 13 were moved from the second subscale to the first because they had a high factor load in the first subscale. Stereotypical sayings and slurs about women who are not considered appropriate to marry or who are recommended not to have a relationship still exist in Turkish society. For this reason, these two items are thought to have higher factor load values in the "negative stereotyping of women" subscale than the "exclusion and discrimination" subscale. In this study, two covariances were drawn between the items that significantly affected the structure of the model and theoretically had similar meanings. These items were "A girl who has an abortion cannot be trusted" and "A girl who has had an abortion might be a bad influence on other women" in the same subscale (Factor 1), as well as "A girl who has an abortion will be a bad mother" and "A girl who has an abortion brings shame to her community." The first two items were similar in terms of being a bad example and not being trustworthy. After the revisions made during the CFA, the model showed a good fit in terms of IFI, an acceptable fit in terms of χ^2/df , RMSEA, CFI, and NFI, and an almost acceptable fit in terms of GFI.

Internal Consistency Analysis

For the Cronbach's α coefficient, which shows internal consistency, values between 0.60 and 0.79 indicate acceptable reliability, whereas those between 0.80 and 1.00 indicate high reliability (Buyukozturk, 2011). In the Turkish version of the scale, the





Note. NSW = negative stereotyping of women; ED = exclusion and discrimination; FC = fear of contagion.

coefficients for the "negative stereotyping of women" and "exclusion and discrimination" subscales can be considered to indicate high reliability, whereas the "fear of contagion" subscale was moderately reliable. In the original scale, the Cronbach's α coefficients were reported as 0.74 for the overall scale, and as 0.67, 0.70, and 0.38 for the subscales, respectively (Makenzius et al., 2019). In another study, the Cronbach's α coefficients were reported as 0.90 for the overall scale, and 0.85, 0.80, and 0.80 for the three subscales, respectively (Shellenberg et al., 2014). While the internal consistency coefficients that were found in this study showed higher reliability compared to the original scale, they were similar to those reported in the study by Shellenberg et al. (2014). The study conducted by Shellenberg et al. (2014) had a heterogeneous sample (wide age range), whereas that conducted by Makenzius et al. (2019) had a homogeneous sample (adolescents aged 14–21). The difference was thought to be due to the fact that the sampling age range of this study was between the two studies and homogeneous.

The SABAS total scale and subscale scores of the participants of this study were lower than those reported in other studies. In a study in Kenya, which included 1,207 students aged 13–21, the mean total scale score of the participants was reported as 46.27 ± 9.57 , and their mean subscale scores were 27.68 ± 5.91 , 12.94 ± 4.61 , and 5.68 ± 2.26 , respectively (Rehnström Loi et al., 2019). In another study, it was reported that the mean total scale score was 47.19 ± 9.27 in the Kenya sample, whereas it was 48.9 ± 14.2 in the Ghana and Zambia samples. The subscale scores were 28.03 ± 8.76 , 14.31 ± 4.66 ,

Table 3

Descriptive and Psychometric Properties of Stigmatizing Beliefs, Attitudes, and Actions Scale Toward Abortion (N = 243)

Number	Items	r	r ^a	α^{a}	М	SD
	Negative stereoty	oing of women (α	= 0.914)			
1	A girl who has an induced abortion is committing a sin.	0.698	0.615	0.932	2.04	1.21
3	A girl who has an abortion cannot be trusted.	0.776	0.788	0.898	1.33	0.65
4	A girl who has an abortion brings shame to her family.	0.839	0.822	0.893	1.39	0.79
6	A girl who has had an abortion might be a bad influence on other women.	0.666	0.694	0.905	1.42	0.72
7	A girl who has an abortion will be a bad mother.	0.848	0.818	0.896	1.32	0.66
8	A girl who has an abortion brings shame to her community.	0.843	0.838	0.895	1.28	0.62
12	A man should not marry a woman who has had an abortion.	0.800	0.731	0.903	1.23	0.63
13	A girl who has had an abortion should no longer be associated with me.	0.762	0.751	0.902	1.21	0.59
	Exclusion and d	iscrimination (α =	0.881)			
9	A girl who has had an abortion should be prohibited from going to religious services	0.702	0.673	0.970	1.13	0.36
10	A girl who has had an abortion should be teased so that she will be ashamed about her decision	0.926	0.851	0.771	1.07	0.27
11	A girl should be disgraced in my community if she has had an abortion.	0.937	0.858	0.777	1.06	0.25
	Fear of	contagion (0.777)				
16	A girl who has had an abortion can make other people fall ill or get sick	0.631	0.524	0.717	1.16	0.45
17	A girl who has had an abortion should be isolated from other people in the community for at least 4 weeks after having an abortion.	0.806	0.620	0.596	1.26	0.55
18	If a boy has sex with a girl who has had an abortion, he will most likely become infected with a disease. Total ($\alpha = 0.907$)	0.840	0.607	0.634	1.39	0.68

Note. r = item-total correlation; $r^a =$ corrected item-total correlation; $\alpha =$ Cronbach's α for subscales and total.

^a Cronbach's α if item is deleted.

and 5.86 ± 2.19 in the Kenya sample, respectively, and they were 25.7 ± 7.48 , 15.72 ± 5.79 , and 7.54 ± 3.41 in the Zambia sample, respectively (Makenzius et al., 2019). In a different study conducted in Kenya, the authors reported the mean total scale scores as 37.3 in male students, 43.7 in female students, 42.0 in male teachers, and 36.9 in female teachers in secondary schools (Håkansson et al., 2020). The reasons for the low scores in this study may be the removal of four items from the scale and the sampling of a young group. Hence, the maximum total score that could be obtained from the scale was 70 points instead of 90. It is thought that the levels of the stigmatizing beliefs and attitudes of the participants of this study toward abortion were lower because the majority of them were women, and 54.7% were born and raised in western parts of Turkey.

Limitations

Among reliability analyses, the test-retest reliability analysis method, showing a scale's time-invariance, was not conducted in this study. The collection of the data with the online survey method limits the results of the study to the self-reports of the participants. The results of this study reflect only this sample, and thus, they cannot be generalized to the entire university student population.

Conclusion

Following the removal of Items 2, 5, 14, and 15 on the original form of SABAS, it was determined that the 14-item form was valid and reliable in evaluating stigmatizing actions, beliefs, and attitudes toward abortion. The scale may also be used to measure the effects of stigma reduction interventions to reduce and prevent unwanted pregnancies and unsafe abortions. It is thought that the Turkish version of SABAS will be an important tool in planning communitybased projects and interventional studies in reducing the stigma toward abortion and evaluating the results of the study. So far, research on abortion stigma has been limited. The current construct of the scale was studied with a young and educated group. It can be recommended that this construct be reevaluated in different samples and used in other studies to evaluate abortion stigma.

References

- Akgul, A. (2005). Statistical analysis techniques in medical researches SPSS applications. Emek Ofset.
- Ayre, C., & Scally, A. J. (2014). Critical values for Lawshe's content validity ratio: Revisiting the original methods of calculation. *Measurement & Evaluation in Counseling & Development*, 47(1), 79–86. https://doi.org/ 10.1177/0748175613513808
- Bader, A. E. (2019). Yahudilik Hristiyanlık ve İslam'da kürtaj. Hatay Mustafa Kemal Üniversitesi İlahiyat Fakültesi Dergisi, 2(1), 116–141.
- Buyukozturk, S. (2011). Data analysis guidebook for social sciences. Pegem Academy.
- Cockrill, K., & Biggs, A. (2018). Can stories reduce abortion stigma? Findings from a longitudinal cohort study. *Culture, Health & Sexuality*, 20(3), 335–350. https://doi.org/10.1080/13691058.2017.1346202
- Davis, L. L. (1992). Instrument review: Getting the most from a panel of experts. Applied Nursing Research, 5(4), 194–197. https://doi.org/10 .1016/S0897-1897(05)80008-4
- Fathalla, M. F. (2020). Safe abortion: The public health rationale. Best Practice & Research. Clinical Obstetrics & Gynaecology, 63, 2–12. https://doi.org/10.1016/j.bpobgyn.2019.03.010
- Gelman, A., Rosenfeld, E. A., Nikolajski, C., Freedman, L. R., Steinberg, J. R., & Borrero, S. (2017). Abortion stigma among low-income women obtaining abortions in western Pennsylvania: A qualitative assessment. *Perspectives on Sexual and Reproductive Health*, 49(1), 29–36. https:// doi.org/10.1363/psrh.12014
- Håkansson, M., Oguttu, M., Gemzell-Danielsson, K., & Makenzius, M. (2018). Human rights versus societal norms: A mixed methods study among healthcare providers on social stigma related to adolescent abortion and contraceptive use in Kisumu, Kenya. *BMJ Global Health*, 3(2), Article e000608. https://doi.org/10.1136/bmjgh-2017-000608
- Håkansson, M., Super, S., Oguttu, M., & Makenzius, M. (2020). Social judgments on abortion and contraceptive use: A mixed methods study among secondary school teachers and student peer-counsellors in western Kenya. *BMC Public Health*, 20(1), Article 493. https://doi.org/10.1186/ s12889-020-08578-9
- Hulme-Chambers, A., Temple-Smith, M., Davidson, A., Coelli, L., Orr, C., & Tomnay, J. E. (2018). Australian women's experiences of a rural medical termination of pregnancy service: A qualitative study. *Sexual & Reproductive Healthcare: Official Journal of the Swedish Association of Midwives*, 15, 23– 27. https://doi.org/10.1016/j.srhc.2017.11.008
- International Test Commission. (2017). *The ITC guidelines for translating and adapting tests*. https://www.intestcom.org/files/guideline_test_adapta tion_2ed.pdf
- Jewkes, R., Rees, H., Dickson, K., Brown, H., & Levin, J. (2005). The impact of age on the epidemiology of incomplete abortions in South Africa after legislative change. *BJOG*, *112*(3), 355–359. https://doi.org/10.1111/j .1471-0528.2004.00422.x
- Kaiser, M. O. (1974). Kaiser–Meyer–Olkin measure for identity correlation matrix. Journal of the Royal Statistical Society. Series A, 52, 296–298.
- Kline, C. R. (1994). U.S. Patent No. 5,376,094. U.S. Patent and Trademark Office.
- Kline, R. (2013). Exploratory and confirmatory factor analysis. In Y. Petscher, C. Schatscheider, & D. L. Compton (Eds.), *Applied quantitative analysis in the social sciences* (pp. 171–207). Routledge.

- Koenig, H. G., & Al Zaben, F. (2021). Psychometric validation and translation of religious and spiritual measures. *Journal of Religion and Health*, 60(5), 3467–3483. https://doi.org/10.1007/s10943-021-01373-9
- Lawshe, C. H. (1975). A quantitative approach to content validity. *Personnel Psychology*, 28(4), 563–575. https://doi.org/10.1111/j.1744-6570.1975 .tb01393.x
- Makenzius, M. (2020). Mixed-methods approach to address abortion stigma: A necessity in resource-limited settings where safe abortion is restricted. SAGE Publications.
- Makenzius, M., McKinney, G., Oguttu, M., & Romild, U. (2019). Stigma related to contraceptive use and abortion in Kenya: Scale development and validation. *Reproductive Health*, 16(1), 136–146. https://doi.org/10.1186/ s12978-019-0799-1
- Martin, L. A., Debbink, M., Hassinger, J., Youatt, E., & Harris, L. H. (2014). Abortion providers, stigma and professional quality of life. *Contraception*, 90(6), 581–587. https://doi.org/10.1016/j.contraception.2014.07.011
- Nove, A., Matthews, Z., Neal, S., & Camacho, A. V. (2014). Maternal mortality in adolescents compared with women of other ages: Evidence from 144 countries. *The Lancet Global Health*, 2(3), e155–e164. https:// doi.org/10.1016/S2214-109X(13)70179-7
- Polit, D. F., & Beck, C. T. (2012). Nursing research: Principles and methods. Lippincott Williams & Wilkins.
- Population Studies Institute, Hacettepe University. (2013). Turkey demographic and health survey. http://www.sck.gov.tr/wp-content/uploads/ 2020/02/Turkiye-Nufus-ve-Sa%C4%9Flik-Arastirmasi-2013.pdf
- Population Studies Institute, Hacettepe University. (2018). Turkey demographic and health survey. http://www.sck.gov.tr/wp-content/uploads/ 2020/08/TNSA2018_ana_Rapor.pdf
- Rehnström Loi, U., Otieno, B., Oguttu, M., Gemzell-Danielsson, K., Klingberg-Allvin, M., Faxelid, E., & Makenzius, M. (2019). Abortion and contraceptive use stigma: A cross-sectional study of attitudes and beliefs in secondary school students in western Kenya. *Sexual and Reproductive Health Matters*, 27(3), Article 1652028. https://doi.org/10.1080/26410397.2019.1652028
- Seymour, J. W., Fix, L., Grossman, D., & Grindlay, K. (2019). Facilitators and barriers to contraceptive use among U.S. servicewomen who had an abortion. *Military Medicine*, 184(5–6), e417–e423. https://doi.org/10 .1093/milmed/usy340
- Shellenberg, K. M., Hessini, L., & Levandowski, B. A. (2014). Developing a scale to measure stigmatizing attitudes and beliefs about women who have abortions: Results from Ghana and Zambia. *Women & Health*, 54(7), 599– 616. https://doi.org/10.1080/03630242.2014.919982
- Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. International Journal of Medical Education, 2, 53–55. https://doi.org/10 .5116/ijme.4dfb.8dfd
- Tavsancıl, E. (2014). *Measuring attitudes and data analysis with SPSS*. Nobel Akademi Press.
- Yapıcı, G., Ögenler, O., Öztosun, E., & Durukan, H. (2021). Bir hastane örneğinde gebe kadınların bildikleri ve uyguladıkları geleneksel yöntemler. *Milli Folklor*, 17(131), 5–23.
- Yılmaz, B., & Şahin, N. (2020). Abortion and stigmatization: A systematic review. *Turkiye Klinikleri*. *Tip Etigi-Hukuku-Tarihi*, 28(3), 451–462. https://doi.org/10.5336/mdethic.2019-72414

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