

Association of abortion stigma and psychological flexibility in women who had termination of pregnancy due to fetal anomalies

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ABSTRACT

Our aim was to assess factors associated with stigmatizing behaviour and beliefs in women who had termination of pregnancy due to fetal anomalies. This was a cross-sectional study of women who had pregnancy termination due to fetal anomalies and age-matched pregnant women as controls, conducted between January – December 2023, at a tertiary fetal medicine center in a metropolitan area. The participants completed the Turkish-validated version(1) of Stigmatizing Attitudes, Beliefs and Actions Scale (SABAS)(2) and psychological flexibility scale(3, 4) upon admission. Maternal sociodemographic and obstetric history data were collected and analyzed with the questionnaires. Abortion stigma was low in both groups (mean scores 30 vs. 31, out of the maximum score of 90, $p=0.65$). Psychological flexibility was higher among the control group (132 vs. 109, $p<0.001$). Higher education and higher economic status were inversely related to abortion stigma (26 ± 7 vs. 33 ± 9 , $p=0.0014$ and 26 ± 7 vs. 31 ± 10 , $p=0.05$, respectively). Women who had at least one child had more stigma towards pregnancy termination compared to women who do not have any children (32 ± 9 vs. 27 ± 8 , $p=0.02$). Timing of termination of pregnancy (first vs. second trimester), maternal age, presence or absence of aneuploidy screening test, time from diagnosis to termination were not factors associated with abortion stigma and psychological flexibility.

We have shown that abortion stigma is quite low among pregnant women who had to terminate their pregnancy due to fetal anomalies and women who had healthy, ongoing pregnancies. Stigmatizing beliefs and behaviours are positively associated with having at least one child, and negatively associated with higher education and higher economic status. Stigma can adversely affect mental health, making it important for healthcare providers to offer compassionate support and counseling.

Keywords: Abortion, termination of pregnancy, stigma, psychological flexibility, fetal anomalies

Introduction

Stigma due to termination of pregnancy is the attribution of negative qualities to women who want and/or have to terminate their pregnancy, and it is a condition that negatively affects women's mental health(5). The experience of stigma is particularly important to explore in women seeking abortion for fetal anomaly given that this diagnosis is often devastating for women and may put them at increased risk for negative psychological outcomes(6). The impact of stigma on an individual causes them to feel discredited and deprives them of the sense of being a complete and ordinary person. Erving Goffman,

described the stigma bearer burden on the book "Stigma: Notes on the Management of Spoiled Identity" in 1963 and led the researchers in the area to focus on the specific plot (7). In the following period, related research defined the stigma as social concept, especially in terms of discriminating and separating the stigma bearer(8). Stigma refers to actions, attitudes, or practices that devalue, discriminate against, or marginalize individuals based on attributes or characteristics perceived as bad or undesirable by societal standards. Such behaviour typically reinforces negative stereotypes and perpetuates social exclusion, resulting in adverse psychological and social consequences for the affected individuals.

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Received: 25.03.2024, Accepted: 07.08.2024

Based on cultural reflex and perception, termination of a pregnancy for medical or voluntary indications could negatively affect the women conceived. In 2009 the first definition of the abortion stigma was described(5). This emotional load has been taken attention last two decades within the scientific point of view relatively new, considering women face the burden for thousands of years.

Over the years there have been questionnaires validated for screening and understanding the psychological stress burden of abortion and termination stigma. Ghana and Zambia were chosen for a validated questionnaire formation on abortion stigma, since both in these communities abortion is highly stigmatized in contrast to legal flexibility (2). Considering these terms, Turkish society may have similar intentions under the circumstance that pregnancy termination with a fetal or maternal indication is legal regardless of the gestational age. In this study we utilized the Turkish validated form which is published in 2021(9).

The right for abortion and medically indicated pregnancy termination is highly important for reproductive, sexual and psychological well-being. The more it is investigated, the more aware the society becomes, possibly leading new regulations protecting and supporting women. In this study we have planned to investigate the abortion stigma and its burden caused by the medical indicated pregnancy termination. Our aim is to explore the socioeconomic, obstetric and mental health factors associated with stigmatizing thoughts regarding pregnancy termination.

Materials and Methods

This was a cross-sectional study of women who had pregnancy termination due to fetal anomalies and age-matched controls, conducted between January – December 2023 in Zeynep Kamil Women and Children's Diseases Training and Research Hospital. Women who opted for pregnancy termination due to fetal anomalies were informed about the study, and after getting a consent, asked to complete the Turkish-validated version(1) of Stigmatizing Attitudes, Beliefs and Actions Scale (SABAS)(2) and psychological flexibility scale(3, 4) upon admission. A sociodemographic form consisted of eight questions regarding marital status, age, education level, perceived economic status, presence of any psychological illness, history of medication prescribed by a psychiatrist and whether the

current pregnancy was planned or not. The exclusion criteria were a history of somatic and/or psychiatric disease and poor understanding of the study protocol. Maternal and obstetric data (gravidity, parity, aneuploidy screening test, indication of pregnancy termination, time between diagnosis and termination, gestational age at the time of termination) were obtained from electronic medical records.

While the Cronbach's alpha value of the SABAS, which includes a total of 18 items, is 0.90, the Cronbach's alpha values of the subdimensions are: 0.85 for negative stereotyping, discrimination and exclusion: 0.80, and fear of contagion: 0.80, respectively. The scale items are 5-point Likert type (ranging from 1 = strongly agree to 5 = strongly disagree) and the 15th item is reverse scored. The scale does not have a specific cut-off point; a score approaching 90 indicates that stigmatizing attitudes, beliefs and behavior towards abortion are high, and a score approaching 18 indicates that stigmatization is low(1, 2).

The Cronbach's alpha value of the psychological flexibility scale is 0.79(4). There are five subdimensions of the psychological flexibility scale, which includes a total of 28 items: Values and behavior in line with values (Cronbach's alpha: 0.84) (Items 1, 7, 9, 13, 16, 19, 21, 26, 27, 28), present-moment awareness (Cronbach's alpha: 0.60) (Items 8, 14, 18, 20, 22, 23, 25), motivation and acceptance (Cronbach's alpha: 0.72) (Items 2, 3, 5, 6, 24), contextual self (Cronbach's alpha: 0.73) (Items 4, 10, 12) and detachment from literality (Cronbach's alpha: 0.59) (Items 11, 15, 17). The scale items are 7-point Likert type (ranging from 1 = strongly disagree to 7 = strongly agree) Items 2, 3, 5, 6, 8, 18, 20, 22, 23, 24 and 25 are scored reversely. The lowest score that can be obtained is 28 and the highest score is 196. High scores on each subdimension reflect high psychological flexibility(4).

The primary outcome was the association of SABAS score with demographic and pregnancy characteristics, and psychological flexibility.

This study was designed as observational, cross-sectional. Descriptive statistics were reported as mean \pm SD, median (interquartile range) and n(percentage). Distribution patterns of data (normal/skewed) were tested by Shapiro-Wilk test. Measures of association for categorical variables were analyzed with Chi-square and Fisher Exact test. Skewed distributions of continuous variables in groups were compared by Wilcoxon-Rank Sum test. Normally distributed continuous variables were compared using t-test. All analyses were performed using STATA

software, version 18.0 Basic Edition (Copyright 1985-2021 StataCorp LLC). A p-value of <0.05 was considered statistically significant.

Research involving human subjects complied with all relevant national regulations, institutional policies and is in accordance with the tenets of the Helsinki Declaration (as revised in 2013), and has been approved by the authors' Institutional Review Board (Zeynep Kamil Women and Children's Diseases Training and Research Hospital) (Decision number: 138/2022).

Results

Data from a total of 33 women who had termination of pregnancy due to fetal anomalies and 33 age-matched controls were analyzed. Demographic and clinical characteristics are presented in Table 1.

Overall scores of SABAS and psychological flexibility scale and scores of their subdimensions are presented in Table 2. Abortion stigma was low in both groups (mean scores 30 vs. 31, out of the maximum score of 90). However, psychological flexibility was higher among the control group.

Overall scores of abortion stigma were higher among those who have at least one child, compared to women who do not have any children (32 ± 9 vs. 27 ± 8 , $p=0.021$). Overall scores of abortion stigma were lower in those who are college educated or higher, compared to those who are not college educated (26 ± 7 vs. 33 ± 9 , $p=0.0014$). Similarly, SABAS scores were lower among women who perceive their economic status as "high", compared to those who deemed their status "average" or "low" (26 ± 7 vs. 31 ± 10 , $p=0.054$). Figure 1 demonstrates mean scores of SABAS and its subscales based on age groups in both women who had TOP and controls. Mean scores were not significantly different between age groups ($p=0.493$), however psychological flexibility scores were significantly higher in the control group (Table 2).

Overall score of psychological flexibility did not differ between women who had at least one child and women without any children (121 ± 20 vs. 120 ± 19 , $p=0.794$). Psychological flexibility scores also did not change based on educational or economic status (125 ± 14 vs. 118 ± 22 , $p=0.132$ and 125 ± 20 vs. 119 ± 19 , $p=0.254$, respectively).

Psychological flexibility and SABAS scores were not different among women who had aneuploidy screening test and those who had not (123 ± 20 vs.

119 ± 19 , $p=0.386$ and 28 ± 8 vs. 32 ± 9 , $p=0.084$, respectively). Similarly, overall scores were not different between women who had TOP at the first trimester or the second trimester of pregnancy (26 ± 8 vs. 31 ± 8 , $p=0.152$ for SABAS and 111 ± 10 vs. 108 ± 13 , $p=0.553$ for psychological flexibility scale, respectively).

The median time to termination from diagnosis was 5 (3-12) days in the study group. Psychological flexibility scale and SABAS scores did not differ between those who waited more than 5 days to terminate the pregnancy after the diagnosis and those who did not (107 ± 11 vs. 111 ± 13 , $p=0.307$ and 28 ± 8 vs. 31 ± 9 , $p=0.344$, respectively).

Figure 2 shows the relationship between abortion stigma and psychological flexibility in women who had TOP due to fetal anomalies and controls. As the SABAS score declines (ie. stigmatizing behaviours and beliefs decrease), the psychological flexibility score increases. Though this relationship is present in both groups, the line is more steep in the control group.

Discussion

We have shown that abortion stigma is quite low among pregnant women who had to terminate their pregnancy due to fetal anomalies and women who had healthy, ongoing pregnancies (mean scores 30 vs. 31, out of the maximum score of 90). We have also revealed that stigmatizing beliefs and behaviours are positively associated with having at least one child, and negatively associated with higher education and higher economic status. Psychological flexibility was higher among women who had healthy, ongoing pregnancies compared to women who had TOP.

The SABAS, developed by Shellenberg et al., and its Turkish validated version by Guner et al., is a tool designed to measure the stigma associated with abortion(1, 2). This scale evaluates various dimensions of stigma, such as stereotyping and discrimination. The relationship between abortion stigma and sociodemographic features is multifaceted and significant. Sociodemographic characteristics such as age, education, socioeconomic status, and religious affiliation can influence the level of stigma experienced by individuals. For instance, younger women, those with lower educational attainment, and individuals from lower socioeconomic backgrounds often report higher levels of abortion stigma (10).

Table 1: Clinical and Demographic Features of The Study Cohort

	TOP group (n=33)	Control group (n=33)	p
Maternal age (years)	29±6	28±5	0.331
Parity	1 (0-1)	1 (0-2)	0.044
Educational level			0.059
Primary school	6 (18.2)	14 (42.4)	
Highschool	15 (45.5)	6 (18.2)	
Bachelor's degree	10 (30.3)	12 (36.4)	
Masters/PhD	2 (6.1)	1 (3)	
Perceived economic status			0.013
Poor	0	7 (21.2)	
Average	26 (78.8)	17 (51.5)	
High	7 (21.2)	9 (27.3)	
Unplanned pregnancy	12 (36.4)	6 (18.2)	0.094
Aneuploidy screening test	13 (39.4)	11 (33.3)	0.612
Gestational age at the time of TOP (weeks)	19 (16-25)	NA	NA
Time from diagnosis to TOP (days)	5 (3-12)	NA	NA
Reason for TOP		NA	NA
Cranial anomaly	2 (6.1)		
Cardiac anomaly	2 (6.1)		
Thoracic anomaly	1 (3)		
Urogenital anomaly	5 (15.2)		
Skeletal anomaly	2 (6.1)		
Neural tube defect	9 (27.3)		
Fetal hydrops	3 (9.1)		
Other genetic abnormalities/aneuploidies	8 (24.2)		

Data presented as mean±SD, median (interquartile range) and n(percentage).

Abbreviations: PhD, Doctor of Philosophy; TOP, termination of pregnancy; NA, not applicable.

Additionally, religious beliefs play a crucial role, with more conservative affiliations often correlating with greater stigma(11). Cultural context also matters, as societal norms and values regarding abortion can vary widely across different regions and communities, further affecting the stigma levels. Our study represents a heterogenous cohort of women from different socioeconomic levels, since conducted at a tertiary center in a metropolitan area (Istanbul). Our reported SABAS scores were lower than the general levels in the literature, yet most of the studies conducted in Turkiye included individuals who probably live in a more conservative setting (Eastern and Southeastern regions), and the more stigmatizing beliefs and behaviours might be attributable to this geographical difference(12, 13). Understanding these sociodemographic nuances is crucial to support individuals facing abortion-

related decisions, a frequent occurrence in fetal medicine centers.

The comprehensive assessment of acceptance and commitment therapy processes (CompACT) by Francis et al. and its Turkish validated version by Karakus et al. measures psychological flexibility(3, 4). Psychological flexibility refers to the ability to accept and adapt to difficult thoughts and feelings while pursuing meaningful actions. Individuals with higher psychological flexibility are more adept at accepting their thoughts and feelings about pregnancy termination without letting them dictate their actions, thereby reducing the internalized stigma associated with abortion. Psychological flexibility may also be assessed by using Acceptance and Action Questionnaire – Stigma (AAQ-S), and higher psychological flexibility is associated with lower levels of internalized stigma(14). Li et al. reported that higher psychological flexibility is a negative

Table 2: Scores of Stigmatizing Attitudes, Beliefs and Actions Scale (Sabas) and Psychological Flexibility Scale

	TOP group (n=33)	Control group(n=33)	p
SABAS (overall)	30±9	31±10	0.652
Negative stereotyping	14±4	15±5	0.633
Discrimination and exclusion	11±3	11±5	0.707
Fear of contagion	5±2	5±3	0.816
Psychological flexibility (overall)	109±12	132±19	0.001
Values and behavior in line with values			
Present moment awareness	57±8	56±13	0.675
Motivation and acceptance	16±5	33±9	0.001
Contextual self	11±3	19±6	0.001
Detachment from literality	14±5	13±4	0.421
	11±4	12±4	0.314

Data presented as mean ± standard deviation.
Abbreviations: TOP, termination of pregnancy

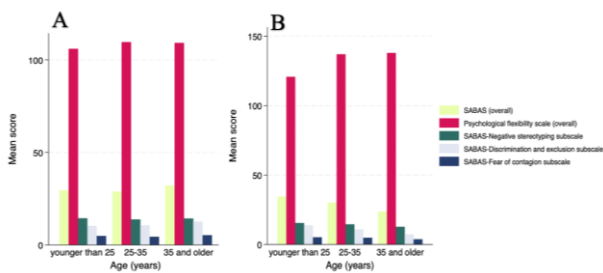


Fig. 1. Comparison of mean SABAS scores based on age groups

- A. Termination of pregnancy group
- B. Control group

predictor of abortion stigma in a large cohort of 469 women who had undergone termination of pregnancy due to fetal anomalies(15). Individuals who exhibit greater psychological flexibility are better equipped to navigate the emotional challenges associated with abortion without letting stigma hinder their psychological well-being or actions. This adaptability enables them to maintain their mental health and pursue valued life goals despite the presence of stigma. Our results are in line with the literature, with higher scores of psychological flexibility scale are associated with lower SABAS scores.

There have been an ongoing controversial discussion of abortion in the United States, recently(16). One can argue that the United States is one of the wealthiest and most educated countries in the world, however, in this day and age, stigmatizing thoughts of the law and policy makers are preventing women to access abortion care, even in the case of proven major fetal

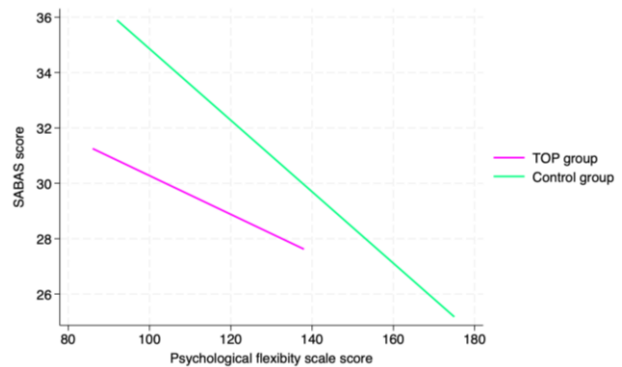


Fig. 2. Relationship of SABAS and psychological flexibility scale scores

Abbreviations: SABAS, Stigmatizing Attitudes, Beliefs and Actions Scale; TOP, termination of pregnancy.

anomalies(17). Despite the Muslim majority in Turkiye, our study shows that both women who had undergone pregnancy termination due to fetal anomalies and who had ongoing healthy pregnancies had low SABAS scores, indicating lower stigma on abortion. Abortion is protected by law in Turkiye until the 10th week of pregnancy. Nevertheless, if there is a major fetal anomaly, or threat to the mother's life, there is not an established gestational age limit, and termination of pregnancy decisions are discussed in multidisciplinary team meetings. Termination of pregnancy may be chosen by families and approved by institutional multidisciplinary board seven in the third trimester(18). Our cohort had a wide variation of fetal anomalies and gestational ages, some beyond 22-24 weeks of gestation, which is the generally accepted threshold of

viability(19). Termination of pregnancy due to fetal anomalies is a particularly sensitive and complex aspect of abortion that intersects deeply with abortion stigma. The decision to terminate a pregnancy for fetal anomalies often involves profound emotional and ethical considerations, and parents may face heightened stigma. This stigma can stem from societal judgements and misconceptions about the reasons for and morality of their decision, leading to feelings of guilt, shame, and isolation(20). Furthermore, the stigma may be exacerbated by a lack of understanding or empathy from the broader community, healthcare providers, and even family members. It is understandable that individuals who undergo pregnancy termination due to fetal anomalies may experience unique forms of stigma compared to those seeking abortion for other reasons, with added layers of grief and loss over the desired pregnancy. This compounded stigma can adversely affect mental health, making it important for healthcare providers to offer compassionate support and counseling. Referring patients who have anomalous fetuses to centers with multidisciplinary team meetings is therefore crucial for women to access termination of pregnancy if that's the choice of the family.

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