## Understanding women's well-being in Turkey

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## Abstract

The results of empirical studies focusing on gender differences in subjective wellbeing based on either national or comparative international data are inconclusive. In Turkey, where levels of gender inequality are high, women tend to report higher levels of life satisfaction than men. This study investigates the relationship between factors related to women's empowerment and life satisfaction for both ever-married and never-married women using the 2018 Turkey Demographic and Health Survey (TDHS), which collected data on life satisfaction for the first time in a TDHS series. The results show that in addition to their material resources and living environment, factors related to women's agency – i.e., education and participation in decisionmaking – are associated with women's levels of life satisfaction.

**Keywords:** women's empowerment; subjective well-being; life satisfaction; Turkey; 2018 TDHS

## 1 Introduction

Many countries in the world have committed to achieving gender equality and to empowering all women and girls by providing them with equal rights and opportunities, as well as protecting them from violence and discrimination (Sustainable Development Goals (SDGs), United Nations 2019).<sup>4</sup> Although gender inequality

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<sup>&</sup>lt;sup>4</sup> Detailed information on SDG Goal 5: Achieve gender equality and empower all women and girls is available at https://www.un.org/sustainabledevelopment/gender-equality/.

has been a major concern for most societies, and especially for developing countries, the relationship between gender and subjective well-being is one of the most puzzling issues in happiness research. While the results of various studies show that women tend to report higher average levels of well-being than men (Blanchflower and Oswald 2004; Dolan et al. 2008; Haller and Hadler 2006; Lalive and Stutzer 2004); others indicate that the average level of life satisfaction is higher for men than for women (Tesch-Römer et al. 2008; Stevenson and Wolfers 2009).

While Turkey has been investing in gender equality for nearly a hundred years. reports from international gender equality indexes show that Turkey is still far from achieving this goal. Turkey ranks 68 out of 189 countries on gender equality. with a score of 0.306 in the 2019 United Nations Development Program (UNDP) Gender Inequality Index. In the World Economic Forum (WEF) Global Gender Gap Index, Turkey was in 105th place among 115 countries in 2006, but was in 130th place among 150 countries in 2020. Despite the Turkish government's ratification of the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) in 1985 and of the Council of Europe Convention on Violence against Women and Domestic Violence (Istanbul Convention) in 2012,<sup>5</sup> the implementation of these conventions has been flawed, as reports of gender-based discrimination and violence against women, including intimate partner femicide, have continued to rise. After 2010,<sup>6</sup> there was a major backlash against efforts to advance women's human rights and gender equality in Turkey. First, gender equality as a norm has since been abandoned in the state's policies and legal framework, and has been replaced with "gender equity". Furthermore, as the legal framework has been altered by the abandonment of gender equality as a norm for state policies, a significant deterioration of women's rights and gender equality has taken place in Turkey (Güneş-Ayata and Doğangün 2017; Hülagü 2021). For example, changes in the regulations have excluded child marriage from being classified as a criminal act; religious authorities have been given a legal mandate to ratify marriages; and restrictions on alimony rights have been proposed.

This radical gender backlash has also led to deepening inequalities in education and employment, which are the major sources of women empowerment. According to data provided by the Turkish Statistical Institute (TurkStat), Turkey is still falling

<sup>&</sup>lt;sup>5</sup> Council of Europe Convention on preventing and combating violence against women and domestic violence, available at https://www.coe.int/en/web/conventions/full-list/-/conventions/ treaty/210/signatures. Recently, Turkey announced the withdrawal from the Istanbul Convention with decree No. 3718 in the Official Gazette on March 20, 2021.

<sup>&</sup>lt;sup>6</sup> There have been major interventions aimed at improving gender equality since the 1990s. The first set of such interventions were initiatives by the government to improve the administrative structures and the legal framework: e.g., the reform process to improve legislation, including the revision of Article 10 of the Constitution to emphasise that ensuring that gender equality is achieved is the obligation of the states; the adoption of the Family Protection Law, which requires that women be protected against violence inflicted by men in the domestic realm; and the Istanbul Convention on combatting violence against women, which went into force in 2014.

short of the target of 100% female literacy set for 2000, which was one of the commitments the country made under the Beijing Declaration.<sup>7</sup> In Turkey, the literacy rate was 95.1% for males and 80.6% for females in 2008; and was 98.7% for males and 92.4% for females in 2018 (TurkStat 2019a). While the literacy data for 2018 indicate that the gender gap had been closed in primary education (92.1% of girls and 91.8% of boys were enrolled) and in secondary education (93.6% of girls and 92.9% of boys were enrolled), it should be noted that the educational enrolment figures did not cover the full population across age groups, and that there were significant disparities among provinces (TurkStat 2019a). Moreover, in 2018, the percentage of girls over age 14 who were enrolled in distant education had increased (62%); and 56% of the female students were enrolled in religious vocational secondary schools.<sup>8</sup> Furthermore, at age 25, 24.6% of men, but only 16.5% of women, were high school graduates or the equivalent (TurkStat 2019a).

In addition to these gender disparities in education, women in Turkey have much lower rates of labour force participation and employment than their male counterparts. According to Gender Statistics 2019, 72% of men, but just 34% of women, are employed (TurkStat 2019a). In addition, the largest share of women who work are employed in the service sector, with the majority working in irregular, underpaid jobs without social security. Based on the International Labour Organization's (ILO) definition of "vulnerable employment", 32% of women in Turkey are either "unpaid family workers" or are "own-account workers" (Toksöz and Memis 2018). Moreover, the results of the Structure of Earnings Survey show that there are persisting inequalities in the earnings of men and women who do the same job, and that the gender pay gap is 20% among higher education graduates (TurkStat 2018). In addition, compared to men, women in Turkey have much higher rates of unemployment, particularly in the non-agricultural sectors. Out of 20 million women living in Turkey in 2019, 57%, or 11,359,000, were out of the labour force because they were occupied with housework. Moreover, according to the results of the TurkStat Time Use Survey (2014–2015), household labour has been disproportionately performed by women (TurkStat 2016). The survey of the daily activities of individuals aged 10 and older showed that the average time spent on household chores and care responsibilities was four hours and 35 minutes for women, compared to only 53 minutes for men (TurkStat 2016).

Despite the persistence of gender-based discrimination against women in Turkey, the results of the TurkStat Life Satisfaction Survey showed that the percentage of women who reported being "happy" was higher than that of men, and that

<sup>&</sup>lt;sup>7</sup> The Fourth World Conference on Women, Beijing Declaration and Platform for Action, available at https://www.un.org/en/events/pdfs/Beijing\_Declaration\_and\_Platform\_for\_Action.pdf.

<sup>&</sup>lt;sup>8</sup> In 2012, the system known as 4 + 4 + 4 was introduced. Under this system, secondary education was made compulsory, but distant education was permitted after the first four years. Until 2012, attending eight years of in-class education was compulsory. After 2012, female students started to enrol in distant education schools, prompting debates about women's exclusion from educational opportunities together with men and chances to attend school with their peers.

the happiness gap between men and women in Turkey increased from 3% to 9% between 2003 and 2019 (TurkStat 2020). When we examine the happiness trends over the last 25 years in Turkey using World Values Survey (WVS) data, we can see that the mean level of life satisfaction has returned to its initial level of 6.5, after increasing to 7.4 in 2011 (Inglehart et al. 2014). Over this period, there was a sharp decrease in average levels of happiness due to the economic crisis of 2001, when the lowest scores for both men (5.8) and women (5.4) were recorded. However, in the wake of the economic recovery and the substantial improvements in material living standards over the following decade, the highest levels of self-reported wellbeing for women (7.3) and men (7.2) were reached in 2011. Although women living in Turkey have tended to report slightly higher levels of life satisfaction than their male counterparts, the size of the gender gap in happiness was negligible between 1996 and 2018. Just as the findings regarding the relationship between gender and happiness have been contradictory, some empirical studies for Turkey have shown that women report higher levels of life satisfaction than men (Caner 2014, 2016; Eren and Asici 2017; Ekici and Koydemir 2014), whereas other studies found that the opposite is the case (Akın and Sentürk 2012; Dumludag 2013). Nevertheless, only a few demographic and happiness studies have focused on the factors influencing the subjective well-being (SWB) of women living in Turkey (Akay and Timur 2017; Cakıroğlu-Cevik 2016; Ermiş-Mert 2020, Sengül and Lopcu 2020). Moreover, existing research using national representative data has tended to focus only on women's labour market status and living standards, rather than on gender inequalities in all life domains. Thus, little is known about the demographic, economic and social characteristics that influence women's well-being in Turkey in relation to women's empowerment.

Against this background, this paper investigates the factors that influence women's satisfaction with life in Turkey by using the women's empowerment and liveability approach. We focus on women's socio-demographic characteristics, external living environment, material and social resources, and agency in relation to decision-making power; as well as the power dynamics in couples. Our aim in this study is to contribute to a growing area of research on the relationship between gender inequality and women's life satisfaction by concentrating on a country with a socio-political and cultural context that differs from those of western countries.

Using data from the 2018 Turkey Demographic and Health Survey (TDHS) (HUIPS 2019), we employ quantitative methods of enquiry to investigate the relationship between women's empowerment and subjective well-being among women living in Turkey. In this study, the life satisfaction of women is measured using a tried and tested 10-point scale in which a value of one means completely dissatisfied, and a value of 10 means completely satisfied. First, using descriptive statistics and Chi-squared tests for independence, we analyse the association between women's socio-demographic characteristics, external living environment and material and social resources; as well as women's agency in relation to decision-making power, the power dynamics in couples, and women's life satisfaction. Then, we apply

generalised ordered logit models (gologit) to investigate the effects of these factors on women's life satisfaction.

The article is structured as follows. The background section critically reviews the literature on gender and subjective well-being by focusing on the conceptualisation of the relationship between women's empowerment and life satisfaction in Turkey, while the second section introduces the data, methods and analytical strategy for the data analysis. The third section presents the results of both descriptive and multivariate statistical analyses on the factors affecting women's life satisfaction. The last section concludes with a discussion of the empirical findings on improvements in the subjective well-being of women living in Turkey.

# 2 Literature on subjective well-being and women's empowerment

Gender inequalities are evident throughout the life courses of women; and because these inequalities affect factors related to women's empowerment, they in turn affect women's well-being. Accordingly, in this section, we first present the relevant literature on gender and subjective well-being. This is followed by an introduction of the conceptual model of the study on women's empowerment and life satisfaction, and then by a discussion of the results of the existing empirical studies on this topic.

## 2.1 Gender and subjective well-being

Subjective well-being is defined as an individual's positive judgment of his or her overall quality of life (Veenhoven 2000). The fundamental components of subjective well-being are as follows: an individual's personal assessment of his or her life at the cognitive level, i.e., satisfaction with life; and an individual's emotional reaction to life events at the affective or hedonic level, i.e., happiness (Andrews and Withey 2005; Campbell et al. 1976; Diener 1994; Michalos 1980). In order to overcome the difficulties associated with drawing clear-cut boundaries between subjective wellbeing, life satisfaction and happiness, we adopt a hybrid view and use the happiness and SWB terms interchangeably, while measuring them under the umbrella term "life satisfaction". In line with the existing knowledge on this issue, we expect to find that rather than representing separate constructs, there is a considerable degree of correlation between life satisfaction and happiness, since both involve affective and cognitive evaluations of life events and conditions (Diener 1994; Graham 2005; Schyns 1998).

In subjective well-being research, gender has generally been treated not as an explanatory factor in the universal happiness formula, like income, age, education and having partner; but as a "control" variable used to limit measurement error. While previous research on this topic has mainly concentrated on gender differences in subjective well-being, the results of empirical studies based on either national

or comparative cross-national data have been inconclusive. If gender is a direct reflection of people's assessments of their lives, we would expect to find that women report lower levels of well-being than men, particularly in societies with strong patriarchal regimes that foster gender-based inequalities in all domains of men's and women's lives. Accordingly, the findings of some studies have shown that men have much higher life satisfaction levels than women (e.g., Boncompte and Paredes 2020; Haring et al. 1984; Meisenberg and Woodley 2015; Stevenson and Wolfers 2009; Wood et al. 1989; Zuckerman et al. 2017). Nevertheless, a number of other studies have reported statistically significant results indicating that women have higher levels of subjective well-being than men (e.g., Arrondo et al. 2020; Arrosa and Gandelman 2016; Blanchflower and Oswald 2004; Dolan et al. 2008; Fujita et al. 1991; Graham and Chattopadhyay 2013; Haller and Hadler 2006: Van Praag and Ferrer-i-Carbonell 2008: Lalive and Stutzer 2004: Zweig 2015). Furthermore, a few studies have found no differences in self-reports of individual well-being between women and men, particularly after controlling for the relationship between well-being and other socio-economic and demographic characteristics (e.g., Clemente and Sauer 1976; Inglehart 1990; Mayungbo 2016; Okun and George 1984; Roothman et al. 2003; Shmotkin 1990; Tiefenbach and Kohlbacher 2013).

In addition, at a macro level, it appears that gender differences in subjective well-being may be paradoxically associated with cultural, economic and political conditions that produce gender (in)equalities in various societal contexts. There is, for example, empirical evidence that people's assessments of their well-being are irrespective of their gender in societies that foster gender equality in different domains of life, such as work-life balance, women's participation in decision-making, and equal access to high-quality health and educational services (Audette et al. 2019; Bjørnskov et al. 2007; Inglehart and Welzel 2005; Inglehart et al. 2008; Jorm and Ryan 2014; Ruth and Napier 2014; Tesch-Römer et al. 2008). On the other hand, there is also evidence that women tend to report lower levels of subjective well-being in certain countries with political structures, economic sources and opportunities, and cultural norms that are supportive of gender equality than women in some African, Muslim and East Asian societies with strong patriarchal values (Stevenson and Wolfers 2009; Tiefenbach and Kohlbacher 2013; Vieira Lima 2011).

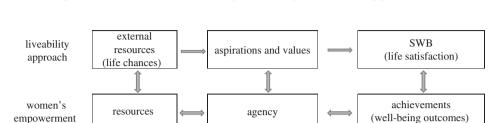
In order to move beyond analyses of the nature of the relationship between gender and life satisfaction based on disaggregating happiness by sex, our study contextualises the gender-happiness puzzle under conditions of gender (in)equality by focusing on subjective well-being and women's empowerment.

## 2.2 Subjective well-being and women's empowerment

In this study, we conceptualise subjective well-being using the "liveability approach", which focuses on the argument that individuals' living circumstances

play a significant role in their appraisals of their quality of life contrary to hedonic treadmill or set-point theory<sup>9</sup> (Veenhoven 1996). This approach explains life satisfaction in terms of the relationship between people's external resources, namely, their objective living conditions and their evaluation of them: and people's aspirations and values, which play a mediating role in their perceptions of their life chances. Furthermore, this approach explains the link between the distribution of life chances in the social environment and how people feel about their lives. Veenhoven (2006) extended his liveability theory so that it referred not only to the characteristics of an individual's social surroundings or the quality of the society, but also to an individual's position in this social setting, which is closely associated with the inherently disadvantaged status of women in unequal gender regimes. Second, from a broader perspective, women's empowerment can be defined as enabling women to act socially, economically, politically and legally by enabling them to access to rights, services, facilities and resources that were previously denied or restricted. According to Rowlands (1995), empowerment denotes women's maximisation of opportunities independent of external restrictions and interventions. Another perspective on empowerment is set within a feminist framework, in which embedded power relations are reversed by giving the control over resources to women. This can strengthen a woman's ability to choose; i.e., it can enable a woman to close the gap between what she desires and what she actually has (Batliwala 1994). In our study, we adopted Kabeer's (1999) conceptualisation of women's empowerment in relation to gender and subjective well-being. In other words, the concept of empowerment that is introduced into our study is based on a feminist approach. Indeed, women's empowerment is a concept that is mostly used in the development literature, with its liberal meanings and connotations. In contrast to this mainstream use of the concept, we prefer to adopt Kabeer's conceptualisation in which she underlines the significance of power, and of women's liberation from the patriarchal societal order. In Kabeer's modelling of empowerment, she emphasises the role of the resources, agency and achievements that enable women to pursue their lives based on their own life choices. Here, "resources" refer to the preconditions, which are composed of material (e.g., income) and non-material (e.g., human and social) means and forms of capital. As another component of women's

<sup>&</sup>lt;sup>9</sup> Nevertheless, whether socio-demographic factors directly influence how people interact with their social environment, and the significance of these factors in estimating individual well-being, are open to debate. Some psychological theories of well-being have argued that people's socio-economic environment plays a negligible role in their subjective well-being. They claim that people's assessments of their quality of life depend solely on personal and relational factors, such as on their personality traits and social relations (Kahneman and Krueger 2006). Nevertheless, liveability theory has defended the salience of individuals' living circumstances in shaping their perceived quality of life. In parallel with this approach, there is a substantial amount of empirical evidence that living conditions have decisive effects on individual well-being. It has, for example, been reported that nearly one-third of the variation in life satisfaction scores is due to properties of people's external circumstances (Noll 2002; Saris 2001; Seghieri et al. 2006; Yetim 1993).



#### Figure 1: The conceptual model of the relationship between gender and happiness

empowerment, *agency* is defined as a woman's potential to both act in alignment with her goals, and to plan and attribute meaning to her activities. In other words, a woman's agency comprises her capabilities of decision-making and of handling her relationships in everyday life. Finally, a woman's *achievements* are the wellbeing outcomes during her life course that are related to both resources and agency in Kabeer's conceptual model of women's empowerment. In order to overcome the inconclusive nature of the relationship between gender and happiness, and to discuss women's well-being in relation to gender inequality, we propose a common conceptual model that combines both the liveability and the women's empowerment approach (See Figure 1).

According to this combined model, a woman's subjective well-being is related not only to securing her basic standard of living by accessing material resources - i.e., income, wealth and paid employment - but also to having a say over how the household income is spent, and the self-evaluation of those resources; and to having the power and the capability to make life choices and decisions that result in a decent quality of life. Few of the existing empirical studies have discussed the role of women's resources and agency in explaining both women's empowerment and subjective well-being. For instance, as a material resource, having adequate income is important for a woman's autonomy and freedom to make choices, and can thus affect her sense of well-being. Some studies have provided evidence that having an income can empower a married woman to call for a fairer division of household labour with her husband (Ball and Chernova 2008; Treas et al. 2011). Nevertheless, considering the relationship between resources and agency, if a married woman adopts traditional gender roles and sees her husband as a breadwinner, her own income would not affect her personal assessment of her quality of life (Clark 1997). Similar to income, the relationship between employment status and happiness among women is a controversial issue, because even though having paid work can contribute to a woman's personal autonomy and self-fulfilment, it does not always produce concrete well-being outcomes. While some studies have shown that being employed has a positive impact on women's subjective well-being (e.g., Tay et al. 2014), others have found that being in paid work can have a negative impact on women's life satisfaction, because women may experience work-family conflicts, as

well as pressure to take on nonconforming gender roles, especially for motherhood (e.g., Booth and Van Ours 2009; Böhnke 2005; Mencarini and Sironi 2012; Mitsuyama and Shimizutani 2019; Stutzer and Frey 2006; Torosyan and Pignatti 2020). Thus, there is evidence that, on average, housewives report having higher levels of life satisfaction than women with paid work and a regular employment status (Haller and Hadler 2006; Treas et al. 2011). Furthermore, education has been shown to have a positive influence on the subjective well-being of women, as it increases their decision-making power within the household and their capability to control their own life (Mitsuyama and Shimizutani 2019). Regarding agency, Ali and ul Haq (2006) have pointed out the contribution of women's autonomy to levels of self-reported life satisfaction among Pakistani women.

There are only a few existing nationally representative studies that have examined how each component of women's empowerment is reflected in women's individual assessments of their overall quality of life in Turkey. In her empirical analysis of data from the European Quality of Life Survey (2007), Cakiroğlu-Cevik (2016) found that having a higher level of education and being married, rather than material living conditions, were positively associated with women's quality of life and happiness. In addition, her findings underlined the positive effects on women's subjective well-being of social ties and family relationships (family, parents, siblings, relatives and neighbours) within the private domain. Using more recent data from the TurkStat Life Satisfaction Survey (LFS), Ermis-Mert (2020) examined the relationship between gender, income and job satisfaction, and their influence on the self-reported happiness levels of women. The results of the study showed that, on the one hand, being an unpaid family worker was positively associated with women's life satisfaction; and, on the other hand, the job satisfaction of working women contributed to their global life satisfaction. In a similar vein, in an analysis of the distribution of happiness across different employment status groups by using World Values Survey Turkey data (1996–2011), Arslan (2020) discussed the paradox in Turkey of happy housewives who reported higher levels of life satisfaction than employed and retired women. Furthermore, in their analysis of the Income and Living Conditions Survey of Turkey conducted by TurkStat, Sengül and Lopcu (2020) found that in Turkey, widowed/divorced female household heads had lower levels of subjective well-being than married women. In addition, their results indicated that, on average, the higher a woman's level of education, the higher her level of life satisfaction.

Despite the findings of these empirical studies, there is still considerable uncertainty about the relationship between gender and subjective well-being, and little is known about the factors that explain women's life satisfaction in relation to women's empowerment, particularly in Turkey. Therefore, against this background, we examine to what extent women's empowerment affects the life satisfaction of women living in Turkey by analysing the effects that women's material and social resources, as well as their agency, have on their subjective well-being outcomes.

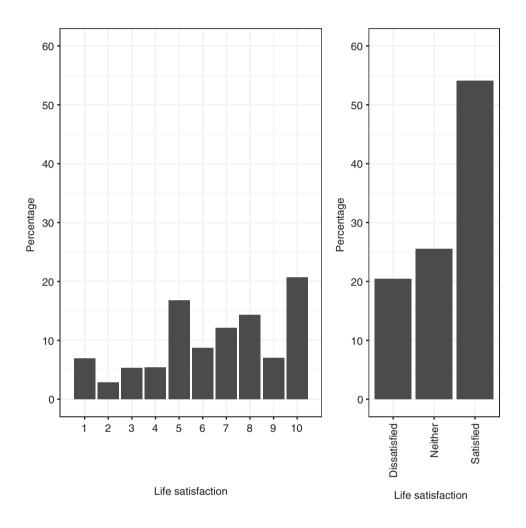
## 3 Data, variables and methods

This research uses individual-level data collected by the 2018 Turkey Demographic and Health Survey (TDHS). Similar to other DHS surveys, the TDHS collects very rich information on women aged 15 to 49, including on their sexual behaviour and reproductive health, migration, work and marriage histories, among many other characteristics. The 2018 TDHS collected data on 7,346 women. Of these respondents, slightly more than 25% were never-married, while 75% had been married at least once. A majority of the women surveyed (78%) were living in an urban area.

The 2018 TDHS collected information on life satisfaction for the first time in a DHS survey conducted in Turkey. This newly collected indicator opened a new door for a more detailed investigation of women's subjective well-being, its association with different characteristics, and the inequalities in well-being among different groups. The information for the dependent variable of life satisfaction was collected with the question: "All things considered, how satisfied are you with your life as a whole?" In the current analysis, we investigate independent variables in five groups: socio-demographic characteristics, material resources, social resources, decision-making and couple power dynamics. The variables in the last two groups are only relevant for ever-married women.

In order to investigate the determinants of life satisfaction, we assign the life satisfaction variable to three groups: dissatisfied (1-4), neither satisfied nor dissatisfied (neither) (5 and 6) and satisfied (7-10). The percentage distributions of the 10-point scale and the grouped variables are shown in Figure 2 in Panel A and Panel B, respectively. In both groups, about 54% of women reported that they were satisfied with their life. However, slightly more ever-married women (22%) than never-married women (18%) reported that they were dissatisfied with their life. Table A.1 provides the percentages and the frequencies of life satisfaction of never-married and ever-married women in the sample.

The analysis presented in this paper is performed separately for ever-married and never-married women. This is because the preliminary analyses showed that never-married women and ever-married women differed in terms of their sociodemographic characteristics, resources and agency. The greatest difference between these two groups of women was in their age distributions. In other words, these two groups consisted of women from different birth cohorts. While more than 80% of the ever-married women were aged 25 or older at the time of the survey, 78% of the never-married women were younger than 25 years old. This difference in the age distributions of these two groups was also reflected in the distributions of other variables, such as educational attainment, external living environment and internet use. Furthermore, the TDHS collected detailed information about ever-married women, and about their current and previous partners. Therefore, some of the variables are only available for the ever-married women sample. The rest of the characteristics of the surveyed women are provided in detail in Table A.2 in the appendix.



### Figure 2: Life satisfaction, (A) 10-point Likert scale, (B) 3-point scale

First, based on the conceptual model of the relationship between women's empowerment and subjective well-being, the explanatory variables for the *resource* dimension are categorised into three groups: (1) socio-demographic characteristics and external living environment, (2) material resources, and (3) social resources. A respondent's *socio-demographic characteristics* consist of her age, educational attainment, mother tongue (a proxy for ethnic identity) and number of children (only for ever-married women). A respondent's *material resources* includes her region and place of residence. A respondent's *material resources* include her employment, the money she has to spend by herself, and the assets (house, land and

car) she owns. A respondent's *social resources* are measured by the extent to which she goes out for meals, organises home meetings, uses the internet and goes to the cinema/theatre. Second, for the *agency* dimension of the model, the respondent's decision-making power and couple power dynamics are considered. These characteristics are also indicators for Goal 5 (Gender Equality) of the Sustainable Development Goals (UN 2015). The variables used to measure *decision-making power* are the respondent's decisions regarding contraception use and health care. Finally, the *couple power dynamics* variables take into account the characteristics of the respondent's last partner; i.e., the partner's educational attainment, social security status and mother tongue.

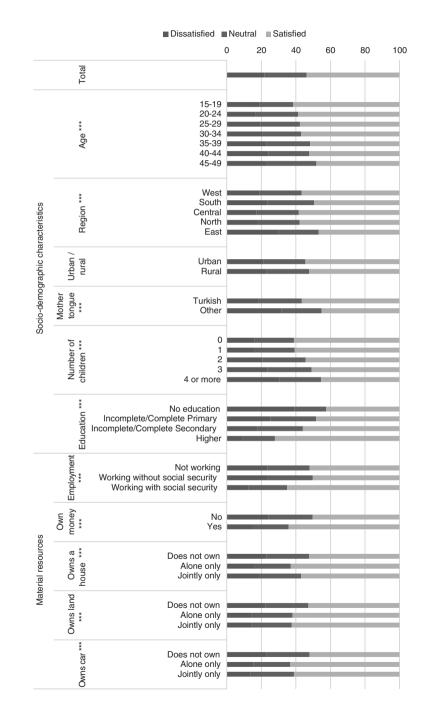
For the data analysis, we start with descriptive analysis and Chi-squared tests for the independence of rows and columns in which the rows are the selected variables and the columns are the life satisfaction variables. Second, for the multivariate analysis, we apply gologit models for never-married and ever-married women separately.

The natural starting point for investigating the association between women's life satisfaction and their characteristics is ordinal logistic regression. However, for this particular data set, the proportional odds assumption that is required for ordinal logistic regression – which is also referred to as parallel lines – is not held. Therefore, in this paper we employ several different gologit models. Gologit models are often used as alternatives to ordinal logistic regression since the assumptions of the ordinal logistic regression model can be relaxed for selected variables (Williams 2016). We present five additive models in which we start with the socio-demographic characteristics (Model 1) and add one-by-one the remaining four groups of variables categorised as material resources, social resources, decision-making power, and couple power dynamics. Finally, we present a parsimonious model that only includes the variables that are significant in at least one of the previous five models.

## 4 Data analysis

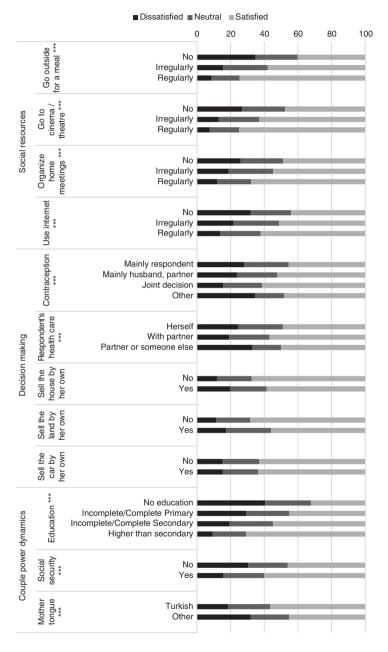
## 4.1 Descriptive statistics

Figure 3 presents the distribution of life satisfaction by the characteristics of evermarried women along with the Chi-squared test for the independence of the rows and columns. The same figure for never-married women is provided in the appendix. Figure 3 shows that younger women, women with higher education and women working with social security had higher levels of life satisfaction than the other respective groups. The Chi-squared test does not show any significant difference between the place of residence and life satisfaction. However, all of the other variables related to women's basic characteristics and their economic status are found to be significant.



## Figure 3: Distribution of life satisfaction by ever-married women's characteristics

### Figure 3: Continued



**Note:** Chi-squared test for independence: p < 0.05, p < 0.01, p < 0.001.

The second half of Figure 3 shows the distribution of life satisfaction and selected variables related to the respondents' socio-demographic characteristics, material and social resources, decision-making power and agency. As expected, the results indicate that women who socialised regularly had higher levels of life satisfaction than the other groups. Similarly, women who had a partner with higher than secondary education had higher levels of life satisfaction than other groups of women. The observed differences between all variables except being the sole decision-maker for the sale of assets and life satisfaction are shown to be significant. It is worth noting that the majority of women (23.4%) owned a house alone or jointly, and even smaller shares of women owned land (10.9%) or a car (17.9%).

The distribution of life satisfaction by the characteristics of never-married women is provided in Appendix Figure A.1. The age, region, education, mother tongue, employment, having money to spend and living standards variables are found to be significant. Surprisingly, the age group in which the largest proportion of women had a high level of life satisfaction (65.8%) is shown to be ages 30–34.

## 4.2 Results of the multivariate analysis

As was mentioned above, we employ gologit models to investigate the association between women's life satisfaction and their characteristics. Gologit models collapse categories of the dependent variable and run a series of binary logistic regressions. In our case, in which the dependent variable has three categories, the model first combines the neither satisfied nor dissatisfied category (2) with the satisfied category (3), and then calculates the odds ratios for this new category relative to those for the dissatisfied category (1). Tables 1 and 2 present a comparison of the odds ratios for category 1 with those for categories 2 and 3. The model also collapses the categories of dissatisfied (1) and neither satisfied nor dissatisfied (2), and compares this new category with the satisfied category (3). In other words, categories 1 and 2 are compared with category 3. We present the odds ratios of these comparisons for ever-married and never-married women in the appendix. In order to avoid the unnecessary complexity of the original gologit model, we use the gologit2 routine in Stata, which relaxes the parallel line assumption only when it is violated with the autofit option (Williams 2005). In the next two subsections, we present the results of the gologit models separately for ever-married and never-married women. As was mentioned above, for both groups, the presented referent group consists of dissatisfied women. Tables 1 and 2 show the odds ratios and their respective significance levels. Three different regression models are employed for both ever-married and never-married women: (1) the respondent's socio-demographic characteristics, (2) the respondent's material resources and (3) the respondent's social resources. For

Dissatisfied	Model 1	Model 2	Model 3	Model 4	Model 5	Parsimonious
Socio-demographic characteristics						
Respondent's current age	0.991	0.986**	0.983***	0.981*	0.984	0.981*
Region (East)						
West	1.174	1.154	1.010	1.164	1.102	1.100
South	0.975	0.954	0.918	1.177	1.18	1.112
Central	1.299**	1.278*	1.187	1.395	1.399	1.333
North	1.190	1.163	1.016	1.280	1.123	1.219
Type of place of residence (Urban)						
Rural	1.199**	1.216**	1.435***	1.329*	1.329	1.367*
Number of children (4 or more)						
0	1.101	1.083	0.905	1.597	1.794	
1	1.106	1.089	0.911	0.753	0.808	
2	1.017	1.001	0.838	0.699	0.716	
3	1.048	1.050	0.949	0.872	0.951	
Mother tongue (Turkish)						
Other	0.740***	0.741**	0.783**	0.875	0.862	0.909
Educational attainment (No education)						
Incomplete/Complete primary	1.516***	1.471**	1.276	1.543	1.568	1.477
Incomplete/Complete secondary	2.313***	2.136***	1.466*	1.441	1.405	1.312
Higher than secondary	4.647***	3.590***	2.074***	1.804	1.385	1.862*
Material resources Employment (Working with social security)						
Not working		0.961	0.985	0.811	0.862	
Working without social security Has own money to spend (No)		0.829	0.866	0.830	0.857	
Yes		1.330***	1.142	1.310	1.343	1.368*
Owns a house alone or jointly		1.550	1.172	1.510	1.545	1.500
(Does not own)						
Alone only		1.226	1.170	1.135	1.106	1.134
Jointly only		1.145	1.088	1.099	1.026	1.092
Owns land alone or jointly (Does		1.115	1.000	1.077	1.020	1.072
not own)						
Alone only		1.139	1.133	1.059	0.942	1.04
Jointly only		1.384**	1.364*	1.099	1.075	1.074
Owns a car alone or jointly (Does						
not own)						
Alone only		1.067	0.924	0.876	0.876	0.925
Jointly only		1.465**	1.387*	0.858	0.803	0.875
Social resources						
Goes out for meals (No)						
Irregularly			2.197***	2.041***	1.882***	2.018***
Regularly			2.584***	3.136***	2.809***	3.041***

## Table 1: Gologit model results (Odds ratio) for ever-married women

Continued

#### Table 1: Continued

Dissatisfied	Model 1	Model 2	Model 3	Model 4	Model 5	Parsimonious
Organises home meetings (No)						
Irregularly			1.217*	1.104	1.071	1.082
Regularly			1.674***	1.631**	1.607**	1.545**
Uses the internet (No)						
Irregularly			1.103	0.993	0.916	
Regularly			1.065	1.017	0.952	
Go to the cinema/theatre (No)						
Irregularly			1.238*	2.054***	1.609**	2.074***
Regularly			1.361	3.361*	1.452	3.578**
Decision-making						
Decision-maker for contraception						
use (Mainly respondent)						
Mainly husband, partner				1.649	1.658	1.662
Joint decision				1.780***	1.781***	1.773***
Other				1.001	1.058	1.014
Person who usually decides on the						
respondent's health care (Herself)						
With partner				1.516***	1.390**	1.512***
Partner or someone else				0.820	0.733	0.837
Couple power dynamics						
Partner's educational attainment						
(No education)						
Incomplete/Complete primary					1.501	
Incomplete/Complete secondary					1.662	
Higher than secondary					2.214	
Partner has social security (No)						
Yes					1.373	
Partner's mother tongue (Turkish)						
Other					1.033	
Observations	5484	5480	5480	1912	1755	1912
Pseudo R-squared	0.029	0.0348	0.0594	0.0921	0.0860	0.0889

**Note:** \**p* < 0.05, \*\**p* < 0.01, \*\*\**p* < 0.001.

ever-married women, two additional models are considered: (4) decision-making within the relationship and (5) couple power dynamics.

It is worth noting that the models are additive in nature. In other words, we start with the socio-demographic characteristics of women in Model 1 and add variables at each step. Hence, Model 5 includes all variables from the five categories. Considering more variables in each consecutive model results in minor changes in both the value and the significance of odds ratios. These changes happen when the new variable is correlated with either another independent variable that is already in the model or the dependent variable. For example, such a change is expected and

Dissatisfied	Model 1	Model 2	Model 3	Parsimonious
Socio-demographic characteristics				
Respondent's current age	0.991	0.985	0.985	
Region (East)				
West	1.144	1.099	1.019	1.059
South	0.812	0.818	0.773	0.802
Central	$1.410^{*}$	1.405*	1.342	1.426*
North	1.431*	1.398	1.336	1.430*
Type of place of residence (Urban)				
Rural	0.998	1.088	1.126	
Mother tongue (Turkish)				
Other	0.761	0.804	0.843	
Educational attainment (No education)				
Incomplete/Complete primary	0.792	0.824	0.813	0.851
Incomplete/Complete secondary	1.579	1.507	1.299	1.741
Higher than secondary	2.470*	2.15	1.691	2.222
Material resources				
<i>Employment (Working with social security)</i> Not working		0.984	1.011	
6		0.984	0.727	
Working without social security		0.08	0.727	
Has own money to spend (No)		1 41 4**	1 227*	1 205*
Yes		1.414**	1.337*	1.305*
Owns a house alone or jointly (Does not own)		1.869	1.072	
Alone only			1.972	
Jointly only		1.361	1.39	
Owns land alone or jointly (Does not own)		0.424	0.425	
Alone only		0.434	0.435	
Jointly only		0.842	0.811	
<i>Owns a car alone or jointly (Does not own)</i>		1 227	1 000	
Alone only		1.337	1.229	
Jointly only		1.116	1.04	
Social resources				
Goes out for meals (No)				
Irregularly			1.436**	1.784***
Regularly			1.569	1.573*
Organises home meetings (No)				
Irregularly			1.117	1.108
Regularly			1.355	1.349
Uses the internet (No)				
Irregularly			0.912	
Regularly			1.254	
Goes to the cinema/theatre (No)				
Irregularly			0.944	
Regularly			0.966	
Observations	1862	1862	1862	1862
Pseudo R-squared	0.0199	0.0259	0.0328	0.029

## Table 2:

## Gologit model results (odds ratio) for never-married women

**Note:** \**p* < 0.05, \*\**p* < 0.01, \*\*\**p* < 0.001.

observed in the odds ratios of educational attainment categories since it is correlated with many other characteristics that are considered in the model.

## 4.2.1 Ever-married women

In this section, we discuss the determinants of being satisfied or being neutral (hereafter being satisfied/neutral) rather than being dissatisfied among ever-married women. Table 1 shows the results for the satisfied/neutral category compared to the dissatisfied category. The results for the dissatisfied category and for the neither satisfied nor dissatisfied (neutral/dissatisfied) category relative to the satisfied category can be found in Table A.3 in the appendix. We find that most variables, except for education and going out for meals, did not violate the parallel lines assumption; therefore, they had the same odds ratio in both tables, irrespective of which two categories of life satisfaction were combined.

The first model investigates the socio-demographic characteristics of the respondent. According to Model 1, living in the central region (compared to the eastern region) and in a rural area (compared to an urban area) increased the odds of being satisfied/neutral with life (compared to being dissatisfied) for ever-married women. Similarly, having at least some primary education increased the odds of being satisfied/neutral when other variables in the model were held constant. More specifically, compared to women with no education, women with incomplete or complete secondary education were more than twice as likely to be satisfied/neutral rather than dissatisfied compared to women with no education, while women with higher education were 4.6 times more likely to be satisfied/neutral than women with no education. Speaking a mother tongue other than Turkish decreased the odds of being satisfied/neutral with life. The other three variables – i.e., the respondent's age and number of children – were found to be insignificant.

Model 2 explores additional variables related to women's material resources. With the inclusion of new variables, the respondent's age becomes a significant determinant. This could be the result of people valuing material resources differently at different ages. According to this model, women who had their own money to spend had 1.330 higher odds of being satisfied/neutral relative to being dissatisfied than women who did not have their own money to spend. Furthermore, the model shows that women who had their own or jointly owned land or a car are more likely to be satisfied/neutral with their lives than women who did not own such assets. As expected, the inclusion of material resources in Model 2 slightly decreased the importance of educational attainment.

Model 3 includes variables related to social resources, in addition to variables related to socio-demographic characteristics and material resources. The results show that whether women had their own money to spend and whether they were living in the central region became insignificant when the new variables were included, and the odds related to educational attainment were further decreased. The odds of being satisfied/neutral relative to being dissatisfied increased for women

who reported going out for meals, going to the cinema/theatre or organising home meetings.

Model 4 investigates how women's empowerment through decision-making affected their life satisfaction levels. Surprisingly, according to this model, the odds of being satisfied/neutral relative to being dissatisfied were higher for women who made decisions on contraceptive use and their health jointly with their partner than they were for women who made these decisions themselves.

In Model 5, none of the characteristics of the women's last partner were found to be significant. This was because the partner's education status (0.86) and mother tongue (0.58) were highly correlated with the women's respective characteristics.

Finally, we run a parsimonious model with the variables that were shown to be significant in the previous models. The results of the parsimonious model indicate that among ever-married women, living in a rural area, having higher than secondary education, having their own money to spend, socialising and having decision-making power increased the odds of being satisfied/neutral; while being older decreased the odds of being satisfied/neutral.

### 4.2.2 Never-married women

In this section, we discuss the determinants of being satisfied/neutral compared to being dissatisfied for never-married women. Slightly more than 25% of the sample consisted of never-married women. It is important to note that 90% of these never-married women were younger than 30 years old. Three different models are used to investigate the association between life satisfaction and other characteristics among never-married women in Turkey. Table 2 shows the results for the combined satisfied/neutral category relative to the dissatisfied category. The results for the dissatisfied category and for the neither satisfied nor dissatisfied (neutral/dissatisfied) category relative to the satisfied category can be found in Table A.4 in the appendix.

In Model 1, which includes the socio-demographic characteristics of nevermarried women, living in the central or the northern region and having higher than secondary education were found to be significant. Living in the central or northern region rather than in the eastern region increased the odds of being satisfied/neutral by a factor of 1.4, while having secondary or higher education compared to having no education increased the odds of being satisfied/neutral by 2.47.

In Model 2, the variables related to material resources are included in addition to the socio-demographic characteristics. In line with the results for ever-married women, the model shows that having their own money to spend increased the odds of being satisfied/neutral among never-married women (by a factor of 1.41).

In Model 3, the variables associated with social resources are added to the model. Women who go out for meals were more likely to be satisfied or neutral than dissatisfied. The internet use variable was not significant in this model. This could be because it was not a distinctive variable, since only 14% of the never-married women in the sample did not use internet.

Finally, the results of the parsimonious model show that living in the central region, having their own money to spend and socialising increased the odds of being satisfied/neutral among never-married women in Turkey.

In this study, we present as a measure of fit the Pseudo R-squared statistics (McFadden's  $R^2$  at the end of Tables 1 and 2). Pseudo R-squared measures are not same as the R-squared measure, and they should be interpreted with caution. However, in both tables, they show that adding additional variables improved the model fit. A considerable number of empirical studies have observed that people's socio-demographic factors and living conditions explain only between 5% and 10% of the total variation in individual happiness scores, with some studies reporting even lower figures (Argyle 1999; Diener 1994; Graham 2004).

## **5** Discussion and Conclusion

The aim of this article was to shed light on the relationship between women's life satisfaction and women's empowerment in Turkey. To investigate this relationship, we used data from the most recent DHS survey conducted in Turkey, which collected information on women's life satisfaction for the first time. By combining the liveability approach – which emphasises the role of external resources, such as objective living conditions, and people's own evaluations of their quality of life – and the women's empowerment model, we investigated the factors influencing the life satisfaction levels of women living in Turkey.

This is the first study that has explored the relationship between life satisfaction and the detailed demographic and socio-economic information on women in Turkey. As we mentioned above, we conducted our analysis separately for the ever-married and the never-married women since they tended to be from different birth cohorts and to have different socio-economic and demographic profiles. On average, the never-married women were younger and better educated than the ever-married women. Surprisingly, however, the factors associated with life satisfaction were found the similar for the two groups.

Our investigation showed that for ever-married women who were living in a rural area, having education, material and social resources, and decision-making power were associated with life satisfaction. Our results also indicated that for never-married women who were living in the central or the northern region, having material resources (such as their own money to spend) and social resources increased their levels of life satisfaction. These findings suggest that factors associated with empowerment increased the life satisfaction levels of women in both groups. Furthermore, this study produced results that corroborate the findings of a large number of previous studies in this field (e.g., Ali and ul Haq 2006; Booth and Van Ours 2009; Böhnke 2005; Çakıroğlu-Çevik 2016; Mencarini and Sironi 2012; Mitsuyama and Shimizutani 2019).

The central region, which includes Ankara, the capital of Turkey, had the secondhighest proportion of highly educated women (18%), while the western region had the highest proportion (20%). The central region also had the second-highest proportion of women in the richest wealth quintile (28%). However, women living in the central region reported the highest levels of life satisfaction. This finding is contrary to those of previous surveys on happiness (TurkStat 2019b), which showed that women in Ankara tended to report lower happiness levels than the average levels for Turkey.

It is worth noting that the educational system in Turkey has been altered several times in recent decades. Thus, women in different cohorts were exposed to different number of mandatory years of compulsory schooling. Regardless of these changes, both our descriptive and multivariate analyses showed that education was positively associated with women's life satisfaction. A potential explanation for this observed relationship is that in addition to being correlated with economic well-being and mental and physical health, education increases women's agency and capability to control their own lives. These findings are in line with those of Mitsuyama and Shimizutani (2019), who found that higher levels of education were positively associated with self-reports of life satisfaction among women living in Japan. Therefore, education can be considered a key resource for women's empowerment.

In addition, we found that two factors were especially important for the economic well-being and life satisfaction of the surveyed women: 1. having their own money to spend; and 2. having assets. Without having control over money and assets, a woman can easily become a victim of economic violence or dependent on her partner, her family or others. In such cases, women will also be less likely to have the means to get out of unsatisfactory relationships, which will ultimately decrease their levels of life satisfaction. Unfortunately, very few women in Turkey have their own money to spend or their own assets. Indeed, the majority of married women living in Turkey share their finances with other family members. Additionally, in most Turkish households, the husband controls the family's money, and decides on how it is spent (Çakıroğlu-Çevik 2016; TAYA 2011). We also found that the nevermarried women in the survey, who tended to be younger than the married women, were even less likely to have their own assets.

When we looked at the impact of women's employment status on life satisfaction, we found that this factor was not significant. This may be because among the surveyed women, accepting a more traditional gender role and household wealth status was a more important factor in their life satisfaction than their own economic status (Clark 1997; Mitsuyama and Shimizutani 2019; Torosyan and Pignatti 2020).

Among the other factors that were shown to be associated with life satisfaction for both ever-married and never-married women were factors related to women's social resources, including going out for meals, organising home meetings and going to the cinema/theatre. Going out for meals and going to the cinema/theatre may be indirect indicators of household economic status, whereas organising home meetings is more likely to be related to socialising with other women. This is because in Turkey, women tend to socialise in their homes. These home meetings – which are also known as reception days,  $g\ddot{u}n$  meetings, gold days or money days (Tuncer 2018) – can also provide an income for the women who are organising them. At these reception days, which are held at regular intervals, the women who are guests generally give a certain amount of money or a piece of gold to the host. Thus, many Turkish women strengthen their social capital in the domestic sphere through these *gün* meetings. Moreover, as the findings of Çakıroğlu-Çevik (2016) indicate, Turkish women generally enjoy socialising with their neighbours, friends and relatives, which, in turn, contributes to their tendency to have more agency and life satisfaction than men.

Furthermore, our regression analyses showed that decision-making had a positive effect on women's life satisfaction. This result is also in line with the findings of Ali and ul Haq (2006), who found that having autonomy increased women's life satisfaction.

The demographic, social and economic characteristics of the different ethnic groups in Turkey vary considerably. When asked to identify their mother tongue, 76.4% of the women in our sample said Turkish, 18.3% cited Kurdish, 2.7% said Arabic and 2.6% named another language. The respondents whose mother tongue was not Turkish reported lower levels of life satisfaction. A possible explanation for this finding is that factors related to women's empowerment are highly associated with ethnicity. For example, 29.4% of women who cited Turkish as their mother tongue had their own money to spend, compared to 11.1% and 18.1% of women who said their mother tongue was not Turkish were also less likely to say that they go out for meals, organise home meetings or go to the cinema/theatre.

A major limitation of this study was our use of cross-sectional data, which did not allow us to test reverse causality between life satisfaction and the demographic and socio-economic characteristics of the women in the sample. Unfortunately, since longitudinal life satisfaction information was not provided in the TDHS, we were unable to set up an ideal causal model to control for this type of endogeneity.

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## Appendix

#### Table A.1:

Life satisfaction of never-married and ever-married women

Life satisfaction	Never married	<b>Ever married</b>	Total
Dissatisfied			
Frequency	340	1188	1528
Column percentage	18.26	21.66	20.8
Neither satisfied nor dissatisfied			
Frequency	505	1344	1849
Column percentage	27.12	24.51	25.17
Satisfied			
Frequency	1017	2952	3969
Column percentage	54.62	53.83	54.03
Total			
Frequency	1862	5484	7346
Column percentage	100	100	100

Characteristics	Never married	<b>Ever married</b>	Total	
Socio-demographic characteristics				
Age in five-year groups				
15–19	50.0	1.2	15.8	
20–24	27.7	8.2	14.1	
25–29	12.2	14.9	14.1	
30–34	4.1	19.0	14.5	
35–39	2.4	20.5	15.0	
40-44	1.7	19.2	14.0	
45–49	1.9	17.0	12.5	
Region				
West	42.0	44.3	43.6	
South	12.0	12.6	12.4	
Central	20.0	21.1	20.7	
North	5.8	5.3	5.5	
East	20.2	16.7	17.8	
Type of place of residence				
Urban	78.2	78.2	78.2	
Rural	21.9	21.8	21.8	
Educational attainment				
No education	1.7	9.2	6.9	
Incomplete/Complete primary	4.4	39.2	28.7	
Incomplete/Complete secondary	56.9	34.8	41.4	
Higher	37.1	16.9	22.9	
Mother tongue				
Turkish	81.6	78.5	79.5	
Other	18.4	21.5	20.6	
Material resources				
Employment				
Not working	75.2	70.1	71.7	
Working without social security	7.5	12.3	10.9	
Working with social security	17.3	17.5	17.5	
Has own money to spend	17.5	11.5	17.5	
No	56.3	72.5	67.6	
Yes	43.7	27.5	32.4	
Owns a house alone or jointly	15.7	21.3	52.1	
Does not own	94.1	76.5	81.8	
Alone only	1.3	7.7	5.8	
Jointly only	4.7	15.7	12.4	
Owns land alone or jointly	,		12.1	
Does not own	96.3	89.1	91.2	
Alone only	0.3	4.1	3.0	
Jointly only	3.4	6.8	5.8	

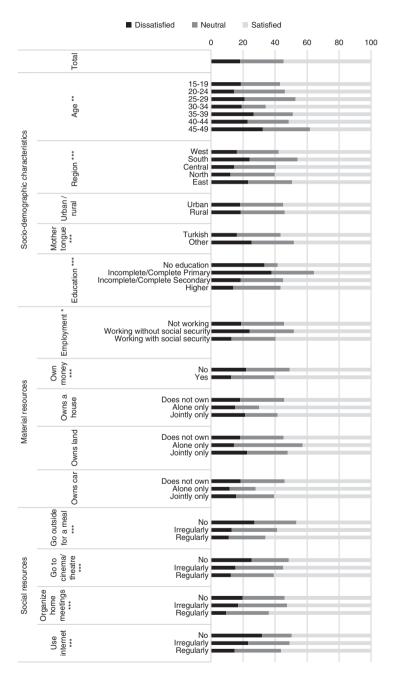
## Table A.2: Characteristics of never-married and ever-married women

Continued

## Table A.2: Continued

Characteristics	Never married	Ever married	Total
Owns a car alone or jointly			
Does not own	95.8	82.0	86.2
Alone only	2.1	6.5	5.2
Jointly only	2.1	11.4	8.7
Social resources			
Goes out for meals			
No	35.6	33.0	33.8
Irregularly	54.7	51.7	52.6
Regularly	9.7	15.3	13.6
Organises home meetings			
No	70.5	58.6	62.1
Irregularly	20.2	22.3	21.7
Regularly	9.4	19.1	16.2
Uses the internet			
No	12.2	30.9	25.2
Irregularly	12.0	18.1	16.3
Regularly	75.9	51.0	58.5
Goes to the cinema/theatre	15.9	51.0	50.5
No	28.8	60.0	50.7
Irregularly	52.2	31.4	37.7
Regularly	19.0	8.5	11.7
	19.0	0.5	11.7
Decision-making			
Decision-maker for contraception use	11.2	22.4	22.2
Mainly respondent	11.3	22.4	22.2
Mainly husband, partner	NA	2.1	2.0
Joint decision	88.7	74.0	74.2
Other	0	1.6	1.6
Person who usually decides on			
the respondent's health care			
Herself	NA	37.8	37.8
With partner	NA	57.6	57.6
Partner or someone else	NA	4.5	4.5
Couple power dynamics			
Partner's educational attainment			
No education	NA	1.9	1.9
Incomplete/Complete primary	NA	33.7	33.7
Incomplete/Complete secondary	NA	44.4	44.4
Higher than secondary	NA	20	20
Partner has social security			
No	NA	20.7	20.7
Yes	NA	79.3	79.3
Partner's mother tongue			
Turkish	NA	78.2	78.2
Other	NA	21.8	21.8
Total	100.0	100.0	100.0

### Figure A.1: Correlation between life satisfaction and never-married women's characteristics



Note: Chi-squared test for independence: p < 0.05, p < 0.01, p < 0.001.

## Table A.3: Gologit model results (odds ratio) for ever-married women

Neither satisfied nor dissatisfied	Model 1	Model 2	Model 3	Model 4	Model 5	Parsimonious
Socio-demographic characteristics						
Respondent's current age	0.991	0.986**	0.983***	0.981*	0.984	0.981*
Region (East)						
West	1.174	1.154	1.010	1.164	1.102	1.10
South	0.975	0.954	0.918	1.177	1.18	1.112
Central	1.299**	1.278*	1.187	1.395	1.399	1.333
North	1.190	1.163	1.016	1.28	1.123	1.219
Type of place of residence (Urban)						
Rural	1.199**	1.216**	1.435***	1.329*	1.329	1.367*
Number of children (4 or more)						
0	1.101	1.083	0.905	1.597	1.794	
1	1.106	1.089	0.911	0.753	0.808	
2	1.017	1.001	0.838	0.699	0.716	
3	1.048	1.050	0.949	0.872	0.951	
Mother tongue (Turkish)						
Other	0.740***	0.741**	0.783**	0.875	0.862	0.909
Educational attainment						
(No education)						
Incomplete/Complete primary	0.985	0.972	0.861	1.543	1.568	1.477
Incomplete/Complete secondary	1.268	1.174	0.850	1.441	1.405	1.312
Higher than secondary	2.323***	1.879***	1.170	1.804	1.385	1.862*
Material resources						
Employment (Working with						
social security)						
Not working		0.961	0.985	0.811	0.862	
Working without social security		0.829	0.866	0.830	0.857	
Has own money to spend (No)						
Yes		1.330***	1.142	1.310	1.343	1.368*
Owns a house alone or jointly						
(Does not own)						
Alone only		1.226	1.17	1.972**	1.881*	1.951**
Jointly only		1.145	1.088	1.099	1.026	1.092
Owns land alone or jointly						
(Does not own)						
Alone only		1.139	1.133	1.059	0.942	1.04
Jointly only		1.384**	1.364*	1.099	1.075	1.074
Owns a car alone or jointly						
(Does not own)						
Alone only		1.067	0.924	0.876	0.876	0.925
Jointly only		1.102	1.028	0.858	0.803	0.875

Continued

## Table A.3: Continued

Neither satisfied nor dissatisfied	Model 1	Model 2	Model 3	Model 4	Model 5	Parsimonious
Social resources						
Goes out for meals (No)						
Irregularly			1.706***	2.041***	1.882***	2.018***
Regularly			2.584***	3.136***	2.809***	3.041***
Organises home meetings (No)						
Irregularly			1.217*	1.104	1.071	1.082
Regularly			1.674***	1.631**	1.607**	1.545**
Use internet (No)						
Irregularly			1.103	0.993	0.916	
Regularly			1.065	1.017	0.952	
Goes to the cinema/theatre (No)						
Irregularly			1.238*	1.464*	1.609**	1.486**
Regularly			1.361	1.264	1.452	1.381
Decision-making						
Decision-maker for contraception use (Mainly respondent)						
Mainly husband, partner				1.649	1.658	1.662
Joint decision				1.780***	1.781***	1.773***
Other				1.001	1.058	1.014
Person who usually decides on the respondent's health care (Herself)						
With partner				1.516***	1.390**	1.512***
Partner or someone else				0.820	0.733	0.837
Couple power dynamics						
Partner's educational attainment (No education)						
Incomplete/Complete primary					1.501	
Incomplete/Complete secondary					1.662	
Higher than secondary					2.214	
Partner has social security (No)						
Yes					0.811	
Partner's mother tongue (Turkish)						
Other					1.033	
Observations	5484	5480	5480	1912	1755	1912
Pseudo R-squared	0.029	0.0348	0.0594	0.0921	0.0860	0.0889

**Note:** \**p* < 0.05, \*\**p* < 0.01, \*\*\**p* < 0.001.

## Table A.4: Gologit model results (odds ratio) for never-married women

Neither satisfied nor dissatisfied	Model 1	Model 2	Model 3	Model 4	Model 5	Parsimonious
Socio-demographic characteristics						
Respondent's current age	0.991	0.986**	0.983***	0.981*	0.984	0.981*
Region (East)						
West	1.174	1.154	1.010	1.164	1.102	1.10
South	0.975	0.954	0.918	1.177	1.18	1.112
Central	1.299**	1.278*	1.187	1.395	1.399	1.333
North	1.190	1.163	1.016	1.28	1.123	1.219
Type of place of residence (Urban)						
Rural	1.199**	1.216**	1.435***	1.329*	1.329	1.367*
Number of children (4 or more)						
0	1.101	1.083	0.905	1.597	1.794	
1	1.106	1.089	0.911	0.753	0.808	
2	1.017	1.001	0.838	0.699	0.716	
3	1.048	1.050	0.949	0.872	0.951	
Mother tongue (Turkish)						
Other	0.740***	0.741**	0.783**	0.875	0.862	0.909
Educational attainment (No education)						
Incomplete/Complete primary	0.985	0.972	0.861	1.543	1.568	1.477
Incomplete/Complete secondary	1.268	1.174	0.850	1.441	1.405	1.312
Higher than secondary	2.323***	1.879***	1.170	1.804	1.385	1.862*
Material resources						
Employment (Working with social security)						
Not working		0.961	0.985	0.811	0.862	
Working without social security		0.829	0.866	0.830	0.857	
Has own money to spend (No)						
Yes		1.330***	1.142	1.310	1.343	1.368*
Owns a house alone or jointly						
(Does not own)						
Alone only		1.226	1.17	1.972**	1.881*	1.951**
Jointly only		1.145	1.088	1.099	1.026	1.092
Owns land alone or jointly						
(Does not own)						
Alone only		1.139	1.133	1.059	0.942	1.04
Jointly only		1.384**	1.364*	1.099	1.075	1.074
Owns a car alone or jointly						
(Does not own)						
Alone only		1.067	0.924	0.876	0.876	0.925
Jointly only		1.102	1.028	0.858	0.803	0.875

Continued

## Table A.4: Continued

Neither satisfied nor dissatisfied	Model 1	Model 2	Model 3	Model 4	Model 5	Parsimonious
Social resources						
Goes out for meals (No)						
Irregularly			1.706***	2.041***	1.882***	2.018***
Regularly			2.584***	3.136***	2.809***	3.041***
Organises home meetings (No)						
Irregularly			1.217*	1.104	1.071	1.082
Regularly			1.674***	1.631**	1.607**	1.545**
Uses the internet (No)						
Irregularly			1.103	0.993	0.916	
Regularly			1.065	1.017	0.952	
Goes to the cinema/theatre (No)						
Irregularly			1.238*	1.464*	1.609**	1.486**
Regularly			1.361	1.264	1.452	1.381
Decision-making						
Decision-maker for contraception use (Mainly respondent)						
Mainly husband, partner				1.649	1.658	1.662
Joint decision				1.780***	1.781***	1.773***
Other				1.001	1.058	1.014
Person who usually decides on the						
respondent's health care (Herself)						
With partner				1.516***	1.390**	1.512***
Partner or someone else				0.820	0.733	0.837
Couple power dynamics						
Partner's educational attainment (No education)						
Incomplete/Complete primary					1.501	
Incomplete/Complete secondary					1.662	
Higher than secondary					2.214	
Partner has social security (No)					2.21	
Yes					0.811	
Partner's mother tongue (Turkish)					0.011	
Other					1.033	
Observations	5484	5480	5480	1912	1755	1912
Pseudo R-squared	0.029	0.0348	0.0594	0.0921	0.0860	0.0889

**Note:** \**p* < 0.05, \*\**p* < 0.01, \*\*\**p* < 0.001.

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