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ABSTRACT

Using data from an individual-level national survey of urban Turks, this research examines whether ordinary people report an understanding and acceptance of developmental idealism messages about the relationship between development and family characteristics. We examine two different aspects of developmental idealism that the recent literature distinguished as original versus new developmental idealism. An important contribution of our paper is its focus on a detailed conceptualization and measurement of developmental idealism, as we constructed six different scales that crosscut the dimensions of correlation, causation and future expectations and the original versus new distinction. Our analyses provide substantial evidence that the ideas of developmental idealism as they relate to family behaviors have been circulated widely among ordinary people in Turkey. The vast majority of Turks endorse most developmental idealism beliefs, with notable variations in responses across various aspects of developmental idealism. Our analyses also suggest that region of residence, ethnicity, education, marriage and fertility, age, gender and secularism are substantially related to developmental idealism beliefs. Furthermore, our results show that the estimated effects of the explanatory variables on developmental idealism endorsement vary across the six scales, providing evidence that understanding and acceptance of developmental idealism beliefs vary by the original versus new distinction and across the three dimensions of correlation, causation, and future expectations. Thus our paper provides evidence that developmental idealism is not a unified package of ideas but is a network of schemas related to each other with varying intensity.

KEY WORDS: Family change, developmental idealism, Turkey.

INTRODUCTION

In this paper, we examine whether developmental idealism beliefs as they are related to certain types of family forms and behaviors have been disseminated to and understood by Turkish people. Using data from a national survey of urban Turks conducted in 2014, we investigate the extent to which ordinary people in Turkey have beliefs that link together economic development with various family forms and behaviors. We also study social, economic, and demographic factors associated with developmental idealism beliefs concerning family change.

Developmental idealism (Hereafter DI) is a cultural model of worldviews, values, and beliefs that identifies the nature of developed and modern societies, identifies modern society as a goal to be attained, and provides a road map for the attainment of development goals. This cultural model proposes a hierarchical and dynamic view of the world in which societies move from traditional to modern stages. DI stresses a strong association between socio-economic development and family forms identified as modern by pointing to a causal and reciprocal relationship between modern society and modern family, in that modern society brings modern family and vice versa. Such family attributes as self-choice marriages at mature ages, low fertility and gender equality were defined by developmental discourse as modern and good, whereas arranged marriages at young ages, high fertility and gender inequality were commonly associated with traditionalism and depicted as undesirable (Thornton 2001, 2005).

Thornton (2001, 2005) has argued that the spread of this cultural model around the world has been a powerful force for social, demographic, and family change. Subsequent research has provided further evidence indicating that the widespread dissemination of DI has been an important influence on public policy and the behavior of ordinary people (Yount and Rashad, 2008; Kavas and Thornton, 2013; Kavas 2015; Cammack and Heaton 2011; Watkins

and Hodgson 2019; Loeffler and Friedl 2014; Thornton 2012; Thornton and Philipov 2009; Thornton and Xie 2016; Thornton et al. 2015).

Survey research from several countries, including China, Malawi, Iran, Argentina, and Albania has shown that the ideas related to family aspects of DI are known and accepted to a great extent by many people across these societies (Gjonca and Thornton, 2019; Lai & Thornton, 2015; Thornton, et al., 2014; Abbasi-Shavazi, et al., 2012; Binstock and Thornton, 2007; Thornton, Ghimire & Mitchell, 2012). However, with the exception of Iran and Egypt (Abbasi-Shavazi, et al., 2012; Yount et al. 2017), there is very limited empirical research investigating people's views concerning the links between development and elements of family life among the Muslim populations of the Middle Eastern region. This means that we know little about people's perceptions of linkages between development and family matters in this region. To be sure, there are two recent studies showing that Middle Eastern populations associate development with morality, personal freedom, democracy, and human rights, but these are, of course, non-family elements (Thornton, et al., 2017a, 2017b). This current study, thus, makes a contribution in filling this gap, using individual-level survey data about people's beliefs about DI and family life in Turkey, a country located in the Middle Eastern region.

Another limitation of DI research is the use of a modest number of individual factors predicting grassroots' acceptance of DI beliefs related to family matters. Only a handful of studies have tested such predictor variables as education, age, gender, ethnicity, wealth, income, media exposure, urban living and number of children, and they have provided mixed findings concerning the impact of these factors on DI endorsement (Abbasi-Shavazi, et al., 2012; Thornton et al., 2014; Thornton et al., 2012). Our study contributes to DI research as the richness of our data allows us to evaluate how acceptance of DI is related to an important range of factors from a different setting.

Our research is particularly important as additional research from new settings is required to expand understanding in this area. Turkey is a relevant location to study the influence of DI beliefs on people's views and attitudes because the country is a quintessential example of an intensive effort to transform a society that has lasted for more than two centuries and continues to the present with Turkey's efforts to enter the European Union (EU). The political elite in the first part of the twentieth century implemented a series of reforms to promote European norms and standards of living. The reform movement included changes in education, economic activities and social life. These change efforts, with an authoritarian and coercive approach, when necessary, also focused on family life, the most relevant legal reform being the adoption of the Swiss Civil Code (1926) in place of the traditional Turkish family law. Moreover, the republic's efforts to build a modern nation included a series of different population policies, pronatalist in the early years and then antinatalist as of the 1960s. Since the second half of the twentieth century, there have been many changes in Turkish demographic and family behaviors including increases in the age at marriage, declines in fertility, increases in divorce, more egalitarian gender roles, and more independence among young people. Kavas and Thornton (2013) have argued that the modernization programs of Turkey and the adoption of the belief and value system of DI have played important roles in these family changes.

In addition to this overarching modernization drive that persists today, we argue that the substantial economic and social changes Turkey experienced in the latter part of the twentieth century also fostered DI's spread in Turkey. Three milestones characterizing Turkey's social and economic history are particularly relevant to DI's diffusion in the country. These include rapid urbanization of the country as of the 1950s, labor migration to European countries in the 1960s and early 1970s, and the government's implementation of an economic liberalization program throughout the 1980s which led to a convergence with EU standards (Müftüler, 1995).

Rapid urbanization of Turkey as of the 1950s provided rural people with more access to mobility, education and the mass media, enabling larger segments of society to reach international flows of information about how the world works; labor migration put Turkish migrants and their non-migrating social networks in contact with the values and beliefs of DI; and government efforts to liberalize the social and economic structures in the 1980s led to substantive reforms toward integration with the European community and opened Turkey to global forces. We argue that these changes since the second half of the twentieth century likely created a terrain wherein Turkish people at the grassroots were exposed to the beliefs and values of DI.

It is important to note that we examine whether ordinary people report an understanding and acceptance of the DI messages about the link between development and certain family characteristics. Even though DI covers a broad range of issues, we focus here only on certain family forms and practices. We also do not study the influence of DI beliefs on actual family behaviors as our analysis draws on a single cross-section of data. Studying DI's impact on actual family behaviors is an important next stage of this research agenda, but outside the scope of the current study. We also focus on the belief element of DI rather than values and preferences.

We are interested in investigating individuals' family-related DI beliefs not because we believe that these ideas are positive blueprints for people or that we value or promote these ideas. We take a neutral stance concerning whether DI per se is right or wrong or good or bad. We also recognize the fact that this model has been strongly criticized among social scientists in recent decades (e.g., Mandelbaum 1971; Wallerstein 1991; Eisenstaedt 2000; Saktanber 2002). In Turkey alone, extensive research censures the universalistic claims of modernization and makes a severe critique of Turkey's official modernization process as being

"homogenizing", "austere" and "paternalistic" (Kasaba and Bozdoğan, 1997; Arat, 1997; Göle, 1996; Çınar 2005).

We now continue with a discussion of DI theory, particularly as it is related to family matters. We then discuss our study setting, Turkey, and the means for the spread of DI there, which is followed by our presentation of the hypotheses concerning the influence of social, economic and demographic factors on DI beliefs in Turkey. We then turn to data and methods, present our results, and end with a concluding discussion.

THEORETICAL BACKGROUND

Developmental idealism is a cultural model that comprises sets of ideas, beliefs and values usually called ‘schemas’ about the world and ways to live in the world (Thornton, 2001, 2005). This model specifies what is good and desirable in life and the means for achieving it (Kavas & Thornton, 2019). The main messages of DI can be summarized with the following propositions: modern society and modern family are good and attainable; societies are at different levels of development and move from being traditional to modern; and many elements of modern society have reciprocal, causal relationships (Thornton, Dorius & Swindle, 2015; Allendorf et al., 2019).

DI comprises a system of beliefs about how societies change and become modern; it defines many aspects of society as modern and good. For example, within DI culture, urban and industrial societies with free markets and with citizens having a high level of education and reliance on science are modern and good; also democracy, human rights, and secularism are seen in DI as important components of modern society. DI also defines several demographic attributes and family practices as good and modern; these include self-choice and mature marriages, low fertility, gender egalitarianism, and a high degree of personal autonomy. DI

depicts as non-modern and undesirable such family elements as large family households, arranged marriages at young ages and strong family solidarity.

DI posits that family characteristics in a given society are causally and reciprocally related to the socio-economic development of that country; that is, modern family helps bring modern society and modern society helps bring modern family. It is the main argument of DI theory that the spread of these schemas globally has been a powerful force for many social, demographic, and political changes (Thornton 2001, 2005). Recent research notes that while the various elements of DI are related to each other, this does not mean that they are accepted, rejected or modified uniformly; rather these schemas of DI join together in a network with some elements very closely and others more distantly related to each other (Allendorf and Thornton 2015). This indicates the importance of the role of the social context that shapes DI's acquisition and acceptance.

DI emerged from a developmental, modernization model whose genesis goes back to the writings of the ancient Greeks and Romans as well as Saint Augustine and later Christians. This classical development model espoused an evolutionary view and through analogy compared human societies to biological organisms passing through stages of life (Thornton 2005; Thornton et al. 2015). This biological analogy of life stages was frequently applied to societal development by many 17th, 18th and 19th-century writers and philosophers (e.g. Hobbes 1642; Hegel 1837; Malthus 1798; Marx and Engels 1848). These scholars viewed societies as dynamic entities following a developmental path moving from traditional to modern (Mendelbaum 1971; Nisbet, 1969). Modernization in this framework was depicted as a 'process' by which development proceeds toward the modern state along a common, linear path (Latham, 2000). Modernist writers posited that traditional societies can develop through contact with Western societies (Pye, 1962; Lerner, 1958; Latham, 2000). In

this worldview "traditional" and "modern" societies are set apart, even dichotomized sharply with Northwestern European societies embodying the modern, thus the ideal state that other nations should naturally follow (Latham 2000; Lerner, 1958).

Thornton and colleagues (e.g., Thornton 2001, 2005; Kavas and Thornton, 2013; Thornton et al., 2015) have argued that many of the ideas of DI have spread widely around the world. There have been many channels for the spread of DI that have made it well-known in many places. Thornton (2001; 2005) cites European travelers, religious missionaries, colonialism, national and international governmental and non-governmental organizations, and feminist movements among the factors spreading DI.

It is important to note that in many places the introduction of developmental ideals to local cultures with their deep-seated values that are very different from DI, leads to cultural clashes, adjustments and hybridity and social change (Thornton 2005; Kavas and Thornton, 2013; Kavas, 2015; Gjonca and Thornton, 2019). In Albania, for example, the majority of people believe that development and family change are interconnected; they value low fertility and gender equality as channels to foster development; however, many have rejected independent living and the idea that marriage is an outdated institution. Most Albanians continue to endorse lifetime marriage and strong intergenerational relations.

Turkey is another example of this hybridity, culture clashes, and social change. For example, a strong DI discourse exists in Turkey indicating that choice-based marriages and the autonomy of married couples are better and progressive. Yet, Turkish parents continue to be involved in their adult children's decision-making concerning such things as marriage, childbearing and divorce, which run counter to the existing popular DI discourse that adult children should be independent (Kavas and Thornton, 2013; Levine, 1982; Nauck and Klaus, 2008). There is also the ever-existing debate on family planning programs, which has recently

been revived by the controversial statement of the president expressing strong opposition to family planning programs. Despite these anti-family planning views, the vast majority of Turkish people accept and practice contraception (TDHS, 2013).

While local context is often cited as a driver shaping DI's diffusion differentially across and within societies, another potential factor for the differing appeal of DI concerns the particular aspects of DI involved. DI literature explicitly shows that while some aspects of DI are energetically embraced by people as good and progressive, others are considered bad, decadent and Western instead of modern (Thornton, 2005). For example, some family elements of DI such as cohabitation, sexual independence and childbearing outside marriage generally receive low appeal in the non-Western world (Allendorf and Thornton, 2015), which is particularly the case among Muslim populations in the Middle East and elsewhere (Abu-Lughod, 1998; Gjonca and Thornton, 2019). Abu-Lughod (1998b) argues that Egypt exemplifies this phenomenon, as women's sexual independence there is strongly rejected and female education and employment are loosely resisted, but in some cases cherished. More conspicuously, in the Turkish modernization experience, republican reformers staunchly supported improving women's status through increasing education, employment and political participation, yet they denounced women's sexual independence; patriarchal control over female sexuality persisted mainly through limiting women's social lives to sex-segregated socializing (Kandiyoti, 1987). Moreover, despite the republican dress code encouraging Western attire for women, revealing clothing was severely rejected (Kavas, 2015).

Furthermore, DI research states that the family aspects of DI such as premarital sex, cohabitation and unmarried childbearing were rejected historically in Northwest European societies; it is only recently that these societies began to experience "the decline in the importance of marriage as a legitimizer of such activities as sex and childbearing" especially in

the second half of the twentieth century, which also saw the increase in the prevalence of these activities (Thornton, 2005: p.,173; also Allendorf et al., 2019). Historically changing attitudes to these elements as well as their differential appeal to people in many societies led recent DI literature to label these elements as "new DI" as opposed the other DI items, labeled as "original DI" (Allendorf and Thornton, 2015; Thornton et al., 2016). In this study, we also consider this separate categorization of family relevant DI elements in our empirical analyses.

Research on the global dissemination of DI

There is considerable evidence that the ideas of DI have been disseminated and widely accepted in many countries. Survey data from multiple social settings has reported that lay people understand the ideas of developmental trajectories and hierarchies (Binstock and Thornton 2007; Thornton et al. 2012c; Xie et al. 2012; Melegh et al. 2013; Binstock et al. 2013; Csánóová 2013; Kiss 2017; Lai and Mu, 2016; Melegh et al., 2016). For example, survey respondents in several social settings were able to rate a list of countries on a developmental scale and for the majority of the cases, they rated world societies similar to the way depicted by the United Nations and in line with the perspectives of DI.

Evidence from survey research also exhibits that other societal aspects of DI are known and accepted by ordinary citizens in several countries around the world. In a survey that spanned five Middle Eastern countries, Thornton et al. (2017), investigated to what extent such concepts as personal freedom, democracy, and human rights are associated with development among these Middle Eastern populations. The findings of this study provide support for the idea that developmental idealism beliefs concerning freedom, democracy, and human rights have diffused to lay publics in these five Middle Eastern countries. Similarly, many Hungarian

survey respondents link democracy to the concept of development (Csánóová, 2013), and Chinese respondents reported ideas linking development and inequality (Xie et al., 2012).

Other studies have provided evidence for the worldwide spread of DI using public documents and empirical evidence. For example, using archival documents, secondary sources and speeches, Kavas (2015) traced the changes occurring in clothing styles over 200 years in Turkey and investigated the pivotal role of physical appearance in the course of Turkey's westernization. Similarly, Xu (2016) examined ideal body type, body weight and body shape as an ideational force affecting marriage entry in Chinese young adults. The findings of this study pointed to a significant impact of body weight and body shape determining the transition to first marriage. In a qualitative study, Jayakody (2019) explored to what extent television is viewed as a source of ideational change in Vietnam that transcends barriers of language and literacy and influences lay peoples' daily lives.

An extensive literature has focused on the family and demographic aspects of DI. Recent research has shown that significant majorities in several countries associate development with such family attributes as self-choice marriage, gender equality, and low fertility. This has been reported for the Middle Eastern countries of Iran, Egypt and Turkey (Abbasi-Shavazi et al. 2012; Thornton et al., 2012; Kavas and Thornton, 2019), for the Asian countries of Nepal (Thornton et al., 2008; Thornton et al., 2012b; Allendorf and Thornton, 2015), China (Lai and Thornton, 2015) and India (Allendorf, 2013), for the Balkan country of Albania (Gjonca & Thornton, 2019), as well as in Malawi (Thornton et al., 2014), Argentina (Binstock and Thornton, 2007; Thornton et al., 2012a/c), and the United States (Thornton et al., 2012a). Moreover, some of these studies focused on more specific family aspects of DI with these specific topics including individuals' entrance into marriage in Nepal (Allendorf et al., 2019); on parents' valuation of approving a child's spouse in Nepal (Allendorf, 2019), on marital

change in India (Allendorf and Pandian, 2016), and on ideal body type as an ideational force to affect marriage entry in Chinese young adults (Xu, 2016).

While the DI literature provides substantial evidence concerning the level of acceptance of DI beliefs and values, the examination of predictors of DI beliefs is limited to a few studies in Iran, Malawi, Nepal and Turkey. This makes it difficult to know how such beliefs are affected by socioeconomic, demographic and ideational factors. Moreover, existing research testing various predictors yields mixed and in some cases conflicting results. For example, the Iranian study investigated birth cohort, urban birthplace, childhood community resources, parental education, respondent education, family income, and media exposure. It found a negative effect of birth cohort on DI beliefs and positive effects of family background characteristics (Abbasi-Shavazi et al. 2012). In the Malawi study, the investigators estimated the influence of age, education, and wealth and found that education and wealth were positively associated with DI, but that there was no statistically significant effect of age (Thornton et al. 2014). The Nepal investigators examined such predictor variables as age, gender, ethnicity, distance to the city, education, nonfamily work, media exposure, being ever-married, and the number of children. They found only education and exposure to the radio significantly and positively affected DI acceptance in Nepal (Thornton et al. 2012b). A more recent study in Turkey investigated DI beliefs about marriage and fertility and how such predictors as regional location, ethnicity, secularism, education, gender, age, marital status, and the number of children affected those beliefs. Contrary to findings in other countries, this study found that the estimated effects of education, gender, marital status, and fertility were in a different direction from theoretical predictions; for example, in this study it was the highly educated, the never married and the childless married individuals who endorsed DI the least and women endorsed DI more than men. Thus, this literature exhibits that context matters in explaining the factors that shape DI

beliefs. Clearly, more research testing predictors of DI is needed to understand the factors that affect people's DI beliefs.

TURKEY AS THE STUDY SITE

Turkey's social and economic history can be described as a history of the drive towards modernization since the late Ottoman Empire (Navaro-Yashin, 2002). Particularly, four time periods can be cited as landmarks with each period accelerating Turkey's engagement with the West and the ideals of development: The republican era in the first half of the twentieth century with its authoritarian modernization reforms; 1950s with a transition to free elections and urbanization; 1960s with massive labor migration to Europe; and 1980s with economic and social liberalization. Below we discuss each time frame in terms of its relevance to DI's diffusion to and within the country.

The efforts of Turks to change and modernize the country extend as far back as the eighteenth century in the Ottoman Empire when Sultan Selim III took the first measures to modernize the military (Zürcher, 1998). Aspirations for new ways of livings and changes toward Western models continued in the Ottoman Empire thereafter. The Ottomans, like their republican successors, conceived westernization not for its own sake but as a fundamental element for a strong state, a survival strategy (Mardin, 1962).

Following the foundation of the new republic in 1923, numerous reforms were implemented to change the empire to a modern nation-state along Western lines (Zürcher, 1998; Özdalda, 2005; Ahmad, 1993). The political elite in the first few decades of the republic set out to introduce numerous reforms including modernization of the educational structure, changing from the Arabic to the Latin alphabet, the adoption of the Western calendar, the abolition of the caliphate and the secularization of the state (Dumont, 1984; Göle 1996; Yeğenoğlu 1998; Özdalga 2005; Gülalp 2005). Many projects were implemented within the first decade of the

republic, including the expansion of industry, establishment of the first national bank, and construction of a network of railways and roads. To improve women's status and legal rights, education was made accessible to girls, and women were granted the right to vote and be elected to office in 1934. The Turkish modernity project greatly emphasized cultural revolution promoting change in cultural codes and lifestyles; the reformers enacted laws outlawing traditional Turkish attire (e.g. the fez), and they promoted Western fashion in their speeches (Kavas, 2015; Yumul, 2010).

Other important reforms in the new republic concerned demographic and family patterns. The adoption of the Swiss civil code in 1926 aimed at promoting Western family attributes. With this civil code, polygyny was banned, minimum age for marriages was established, gender equality in inheritance was enacted and the nuclear family model was encouraged (Cindoğlu et al., 2008; Sirman, 2007). Since the early decades of the republic, the Turkish government attempted to implement population policies and programs—first pronatalist policies up until the 1960s, and antinatalist policies thereafter—all with a developmental perspective (Kavas, 2014). With a pronatalist policy, the founding elite aimed to counterbalance the population loss resulting from a decade of warfare from 1911 to 1922 (Özbay 1985; Akın and Aykut, 2011), and with the later antinatalist policy the governments aimed to control population growth as they believed it was crucial for social and economic well-being and progress (Fişek and Shorter, 1968; Akın, 2007). Following the policy recommendations of the United Nations, they encouraged contraception and established family planning agencies across the country.

Even though this family planning program as well as other reforms in the family sphere faced severe opposition from many who considered these reforms inconsistent with Islamic principles, the reforms continued and checking population growth remains at the core of public

policy in Turkey (Kavas, 2014). Over several decades, contraceptive use has increased and fertility has declined greatly. Also, many other changes have been observed, including increases in the age at marriage, divorce, egalitarian gender roles, and youthful independence--things that Kavas and Thornton (2013) have suggested to be strongly affected by the Turkish modernity project and its strong endorsement of DI.

Turkey in the 2nd half of 20th century

In addition to the important social and economic transformations during the first part of the 20th century, Turkey experienced substantial changes in the 2nd half of the century which played significant roles in DI's spread in Turkey. The year 1950 is an important historical threshold for Turkey, not only because structural changes in economic and political landscapes occurred thereafter, but also because modernization/westernization efforts diffused to the grassroots. As Bozdoğan (1997: p.,141) states, "Modernism as a political project reached its epitome in this period". Different from the republican model where modernity was an authoritarian project that mainly concerned the political elite, modernization efforts as of the 1950s embraced a more liberal and general approach.

Two things played a role in this substantial change: multiparty elections and rapid urbanization. While multiparty elections brought about liberal democracy that led to more flexibility and less government intervention in cultural affairs and daily life (Koçak, 2010), it also included modernization of the political and economic system. With the aspiration to become "a little America", the newly elected government in 1950 set out changes in the economic structure with extensive cooperation with Western powers. The famous Marshall plan was used to finance agricultural and industrial initiatives and NATO membership occurred during these years. Mechanization of agriculture, coupled with industrial developments in the urban centers, fueled a massive rural-to-urban migration that continued for several years

(Pamuk, 2007; White, 2010). Twenty-five percent of Turkey's population was urban in the early decades of the republic; it rose to 32 percent between 1950 and 1960, and to 44 percent by the 1980s (Turkstat, 2010).

The rural people flowing into the urban centers, working at marginal sectors and living in squatter houses in shanty towns led to the intermixing of traditional and modern patterns in everyday life and created changes in lifestyles, tastes and norms of rural migrants (White, 2010). In this way the influx of rural people to the cities led much larger masses to experience the modernity project (Bozdoğan, 1997; White, 2010; Tuna, 1977). Having opportunities of city life, the rural migrants found an impulse to change, and one visible change observed was that migrant families gradually became more nuclear (Tuna, 1977; White, 2010). DI theory suggests that urban living provides people with pathways to encounter ideas of developmental idealism as it facilitates more access to education, increases mobility through transportation, provides nonfamily occupations and brings independent living (Allendorf & Thornton, 2015). So, even though it is replete with problems, rapid urbanization and political liberalization which marked the 1950s not only expanded the modernization experience to the grassroots but also led people to have relatively more autonomy in their encounter with, acceptance of, and incorporating the schemas of modernity in their lives (Bozdoğan, 1997; Güngör 2017; White, 2010).

Another important pathway for DI's diffusion to Turkey was large scale labor migration to Western countries in the 1960s. Turkey signed a bilateral labor recruitment contract with Germany and later with other European countries that allowed thousands of Turkish laborers, so-called "guest workers", to move to Europe. This not only provided a solution to unemployment and housing problems but also provided an opportunity for the implementation of the general development plan for the country (Zuccotti, Ganzeboom and Güveli, 2017). With

the promises of employment opportunities and remittances, labor migration was an important policy that featured prominently in the five-year development plan of 1961-1967 and beyond (İçduygu, Sirkeci and Muradođlu, 2001).

Between the 1960s and the early 1970s, almost one million Turkish workers moved to Western European countries; just in 1964 alone some 66,000 workers moved to Europe (İçduygu, Sirkeci and Muradođlu, 2001). Although labor recruitment contracts allowed only labor migration and for a defined period of time, the migration of Turks to Europe continued for other reasons as well, including family reunion, political asylum-seeking, access to better education and employment opportunities (Çakırek and West, 2009; Güveli et al., 2016; Zuccotti, Ganzeboom and Güveli, 2017; İçduygu, Sirkeci and Muradođlu, 2001). By 2010 the number of Turkish citizens in Western European countries comprised around four million people (İçduygu, 2012; Abadan-Unat, 2011; Zuccotti et al., 2017), the largest migrant group in Western Europe (Çakırek and West, 2009; Zuccotti, et al., 2017).

Extensive literature reports on the transforming impact of Turkish labor migration on the communities, relatives and families of migrants, particularly on migrants' social and economic contributions back to Turkey (Güveli, et al., 2016; Abadan-Unat 2011; Akgunduz 2008; Martin 1991; İçduygu, Sirkeci and Muradođlu, 2001; İçduygu, 2012; Küçükcan and Güngör 2009; Çakırek and West, 2009). The experience of migration is a source of social change for the migrants themselves; living in European countries, obtaining new skills and industrial jobs, having greater wealth and increased exposure to mass media potentially help produce changes in migrants' attitudes and behaviors. Studies document such behavioral changes as conspicuous consumption, nuclear families, decline of extended family relations, and more egalitarian gender role attitudes among both the migrants and returnees to Turkey (Abadan-Unat, 1977; Kadiođlu,1994; İçduygu, 2012). Importantly, migration-induced social

changes also extend to the migrants' personal networks in their home country through interaction and communication with those left behind, exposing the non-migrants to the "migration effect" indirectly (İçduygu, 2012). The visits of migrants back to Turkey for general visiting and attending social gatherings (weddings, funerals, bayram visits, etc.) and frequent communications with family and friends back home, in many ways, provided avenues for European norms, values and lifestyles to diffuse even to the remotest villages in Turkey (İçduygu, 2012). Empirical research reports attitudinal and behavioral changes in migrants' personal-social environment, including gender relationships, individualism and the rising value of children (İçduygu, 2012; Kağıtçıbaşı, 1988; Kadioğlu, 1994). In their homelands, migrants were usually perceived as wealthy and educated and were emulated in many ways. At the same time, coming from Europe, mainly from Germany, migrants are labeled as 'Almanci' (German-like) and treated as westernized, thus "culturally distorted" (Künüroğlu et al., 2020).

Finally, the 1980s were also important for Turkey's socio-economic and cultural transformation as well as its continuing efforts to advance towards integration with the West (Bozdoğan, 2010; Ahmad, 2010; Müftüler, 1995). Under the prominent leader, Turgut Özal, prime minister from 1983 to 1989 and president from 1989 to 1993, Turkey underwent economic liberalization and an export-oriented industrialization program (Ahmad, 2010). Throughout the 1980s, Turkey took important steps to make radical structural changes promoting a 'free market' economy and preparing for the customs union and EU-membership (Ahmad, 2010; Müftüler, 1995; Özyürek, 2006). "Those measures were as a whole an integral part of the government's major objective: integration with the European Economic Communities" (Müftüler, 1995: p., 96). In addition to economic developments, throughout the 1980s Turkey opened itself to international organizations and communities; the government

officially applied to the European Union for full membership and recognized the International Human Rights Court (Kabasakal-Arat, 2010).

Turkey's effort to open up to global markets led to a booming consumer economy with an unprecedented diverse range of consumer goods, including new apartment blocks in the big cities. Also important was the improvement in access to mass media. Television reached the remotest rural areas of Turkey with over 60 percent of households having color television by 1990 (Öncü, 2010). With the initiation of private broadcasting which led to an array of private TV and radio channels, Turkish people also witnessed the end of the state monopoly on broadcasting. Liberalization of the broadcasting system led a considerable cultural transformation in the society, with people staunchly embracing the various programs on satellite TV channels that offered American series, talks shows, magazines, etc. (Şahin and Aksoy, 1993). This was again strategically planned by the then president, Turgut Özal, who had his son launch the first private channel in 1990. With these and many other efforts, Özal aimed to "expedite Turkey's economic and cultural integration into the globalization process, which he described as "synchronization with the civilized world" (ibid, p. 33).

Among other developments in the 1980s and early 1990s, the spread of television to the remotest areas of the country, along with the proliferation of TV channels, is crucial for understanding the transmission of DI beliefs and values to the grassroots. Television worldwide is imbued with the ideas of DI and extensive Western programming prevails, bringing with it Western values and lifestyles (Thornton, 2005). Important from our point of view is the fact that "television introduces very vivid depictions of modern family and society to areas where the local norms may be very different" (Jayakody, 2019; p. 250), for example, bringing images of DI-type families with low fertility and autonomy and equality in personal relationships (Thornton, 2005; Faria and Potter, 1999).

Research Hypotheses

As we have discussed, Turkey has experienced over the last century numerous social and economic changes that lead us to hypothesize that DI is currently widely disseminated in Turkey. In general, we expect that a substantial majority in Turkey perceive a relationship between development and many characteristics of family life in ways that are consistent with DI. Our first specific hypothesis is that a large majority of ordinary Turks believe that development is correlated with certain family attributes as suggested by DI. Our second specific hypothesis is that a large majority of Turks believe that development and certain elements of family change are causally interconnected. Our third specific hypothesis is that a large fraction predicts future family changes in the direction defined as modern by DI.

The DI literature cites various factors, including education, urban residence, paid employment, and ethnicity as influences on the dissemination of DI across societies (e.g., Abbasi-Shavazi, et al., 2012; Thornton et al., 2012). In the Turkish setting, we hypothesize that the region of the country, education, marital status, number of children, gender, age, ethnicity, secularism, and parental education influence the acceptance of DI. Although other important factors such as income and paid employment could potentially shape DI's acceptance, we cannot examine them because of extensive missing values for them in the data we use.

We hypothesize that region exerts an important influence on the level of DI endorsement in Turkey. Eastern and southeastern Anatolia have for several decades not participated as fully as other regions in the many changes described above. Compared with western residents, those in the eastern Turkey have not had equal access to quality transportation, education, health and communication—the mechanisms that have been identified as important disseminators of DI. We hypothesize that this regional disparity has resulted in people in the eastern region endorsing DI less than people in the west.

Ethnicity is another important predictor of the influence of DI as it shapes various dimensions of life (Allendorf and Thornton, 2015). Turkey is a multiethnic society with Kurdish people comprising the largest minority group (Konda, 2011; Çelik, 2012). Kurds have their own language and distinct culture, and most of them live in the eastern and southeastern regions; with the regional disparity mentioned above, they experience relative deprivation. The ethno-political conflict between Kurdish separatist groups and Turkish security forces since 1984 also leads to social tension between Turks and Kurds (Çelik, 2012). All of these forces dissociate Kurds from the larger society. These considerations lead us to hypothesize lower endorsement of DI among Kurds than among the general Turkish population.

Since the late Ottoman era, education has occupied a central role in Turkey's modernization effort. Establishment of secular schools with Western models in curriculum design and subjects, for example, was one of the earliest reforms of the modernizing elites (Kazamias 1966; Winter 1984). We hypothesize that in Turkey the more education a person has the greater are beliefs in DI. Also, DI research in other settings shows that parental education increases endorsement of DI (Abbasi-Shavazi, et al., 2012). We also examine the influence of parental education on the endorsement of DI in Turkey, with the hypothesis that coming from families with higher levels of parental education has a positive influence on DI's endorsement.

Within DI theory, married life and having a large family are seen as negative correlates of DI, leading us to expect that being married and having multiple children are associated negatively with the acceptance of DI beliefs. The DI literature reports no monotonic influence of age on the endorsement of DI. This may be because the aging process helps people gain more knowledge and at the same time counteracts this effect by making it more difficult for older people to acquire new ideas in a fast-changing world (Kavas and Thornton, 2019).

Turkey is a social setting where gender inequality prevails, producing a wide gap between men and women in their access to knowledge about the world at large. We hypothesize that this differential has resulted in women endorsing DI less than men.

We expect that secularism is associated with greater understanding and adoption of DI. In China, it has been shown that Islam has strong influences on family values in the opposite direction from DI (Lai and Thornton, 2015). Moreover, although the Muslim community does not have a wholesale rejection of modern lifestyles (see Abu-Lughod 1998), some aspects associated with development such as premarital sex, cohabitation, and individualism are severely rejected.

DATA AND MEASUREMENT

Data collection

Our data come from a survey project concerning fertility and family life in urban Turkey that was designed to study ordinary people's views about family relevant aspects of DI. The survey was conducted in 2014, with 2034 people of reproductive ages (18–49) through face-to-face interviews with randomly selected men and women in urban Turkey.

We employed a multistage stratified sampling procedure including 17 provinces. The primary sampling units were the administrative provinces, which were designed following the classification of statistical regional units formed by the Turkish Statistical Institute (Turkstat). This system defined 26 territorial units according to their common demographic and geographic features. Provinces consist of cities and their surrounding districts which may include both urban and rural populations; large provinces (e.g., Istanbul) do not have a rural population at all while in other provinces, there are substantial rural elements.

Respondents were chosen using the following strategy. First, provinces were selected by taking into consideration their shares in the population of that region (PPS). After that, the number of interviews for each province was coordinated. Next, neighborhoods were selected based on equal probability random sampling with the selected blocks including 20 households each. The interviews were held with the members of these households. The final sample included 2034 individuals aged 18 to 49 years at the time of the interview and had a response rate of 51%.

The higher costs of national surveys that include rural areas combined with our budget limitation forced us to design an urban sample. As we previously discussed, Turkey's rapid migration since the 1950s increased the percentage of the population that is urban (Erder, 2002; Sayari and Hoffman 1991), with the urban population being 93 percent as of 2019 (Turkstat, 2020). We, nevertheless, recognize the fact that with our urban sample we cannot extrapolate our results to the country as a whole. Table 1 displays some basic demographic characteristics of the participants.

Our survey was carried out by a research firm based in Istanbul; the interviewers were all residents of Turkey who were experienced in collecting data. They were further trained in the contents and methods of our survey. We based our questionnaire mainly on the DI questionnaire that was constructed for use in internationally-diverse settings.

Measurement

The central substantive issue for this research concerns the extent to which Turkish individuals intellectually correlate development and family change. Toward this end, we used three sets of questions to examine Turks' views of DI as they relate to family matters. These three sets of questions correspond to three different dimensions of DI that we use in our empirical analyses.

In the first question set (correlation dimension) we asked respondents about their perceptions of the relationships between development and several family characteristics, as follows: "Now, please think about what life is like today in countries that are not developed and compare it to what life is like today in countries that are developed. Please tell us whether each of the following things, in general, is more common in countries that are not developed or more common in countries that are developed". The second set of questions focused on the causal nexus between development and family change (causation dimension) and asked respondents whether a development program in a country would impact family change: "Now, please think about what life is like in a country where the standard of living is low, most people live in rural areas, and access to healthcare is poor. Suppose that the country introduces a program to help make it more developed. I will read a list of things this development program might change. For each one, please tell me whether it will increase in that country or decrease in that country once the development program has been successfully implemented". And our final set of questions focused on people's prediction of future family trends (future expectations dimension) and asked whether certain family attributes would increase or decrease in the next twenty years in Turkey.

The family items we asked about are listed in Table 2. As we noted above, recent DI research has identified two separate dimensions of DI: an original DI and a new DI (Allendorf and Thornton, 2015; Thornton et al., 2016). We have followed this distinction in this paper and have listed the original DI family items we measured in the top panel of Table 2 and listed the new DI items we measured in the bottom panel. As noted in the table, the first two question sets (correlation and causation dimensions) for original DI asked about the following family items: "living with parents-in-laws", "romantic love between spouses"; "gender equality", "family unity and loyalty", "respect for elders", "early marriage", "late marriage", "arranged

marriages”, “women never getting married”, “delaying childbirth”, “high fertility”, and “low fertility”. With the exception of romantic love between spouses, family unity and loyalty, respect for elders, and arranged marriages, the same family items were addressed in the question set asking about future expectations.

For the new DI dimension, we asked about five family attributes: "unmarried childbearing", "cohabitation", "premarital sex", "abortion", and "marriages breaking up". All five items were asked about in the correlation and causation sets, while cohabitation was omitted from the future expectations set.

In addition to the items about family things, in the question set about correlates of development, we asked about seven nonfamily items that are generally associated with development. These items—ranging from infant mortality to women giving birth in a hospital rather than at home—are listed in Table 3. We included these items so that we could compare the distributions on the family items with the distributions on the nonfamily items that are generally seen as being part of development itself.

Using the family items in each of the question sets presented in Table 2, we constructed six scales: one each for the three sets of questions multiplied by the old and new DI distinction. This produced 3 scales for the original DI items titled *original DI correlation*, *original DI causation*, and *original DI future expectations*; another 3 scales were constructed from the new DI items; *new DI correlation*, *new DI causation* and *new DI future expectations*.

We constructed these six scales through a combination of conceptual and empirical considerations that included inspection of correlations and factor analyses. For the original DI dimension, we focused on the more general family items of living with parents-in-laws, romantic love between spouses; gender equality, family unity and loyalty, and respect for elders. We omitted two items—family unity and loyalty and respect for elders—because of low

or negative correlations or negative loadings in the factor analyses. Unfortunately, the omission of the item about romantic love between spouses in the future expectations set made it impossible without additional assumptions to estimate factor loadings for this particular dimension. Table 4 provides the factor loadings, alpha scores and eigenvalues for the original DI correlation scale and the original DI causation scale, with the factor loadings for them ranging from .48 to .64 for the correlation scale and from .51 to .86 for the causation scale.

Our factor analyses showed that each of the new DI items--unmarried childbearing, cohabitation, premarital sex, abortion, and marriages breaking-up--fit together and formed a package for each of the three sets of questions: correlation, causation, and future expectations. This led us to form scales consisting of all five items for both the correlation and causation scales. However, the omission of the item on cohabitation from the questionnaire set about future expectations required us to create a four item scale for future expectations. As shown in Table 4, for the new DI correlation scale the loadings range from .51 to .74; for the new DI causation scale, they range from .73 to .91, and for the new DI future expectations scale the loadings range from .54 to .73.

Finally, we constructed each of these six scales by adding the raw items together. While the scores for the original DI scales ranged from 0 to 3 (or 0 to 2), for the new DI scales they ranged from 0 to 5 (or 0 to 4), with the highest scores representing a high endorsement of these DI beliefs. Next, we converted the scales to standardized scores by subtracting the mean from the person's score and dividing this value by the variable's standard deviation—producing a variable with a mean of zero and a standard deviation of one.

RESULTS

Univariate Distributions

We begin our discussion of results with the distribution of responses to the series of questions concerning respondent beliefs about the relationships of development with several family attributes. We present these family items in six columns of Table 2 according to the three dimensions of DI: correlation; causation; and expectations of the future. As discussed earlier, we divided the family related items into original DI and new DI distinctions, with the original DI results listed in the top panel of Table 2 and the new DI results in the bottom panel of Table 2. For each panel and each dimension (correlation, causation, and future expectations), we list in the bottom of the panel, the average percentage of respondents endorsing and not endorsing DI. We later compare the distributions in Table 2 for family DI with those for the general development questions listed in Table 3.

Responses to the Original DI items

The distributions in the first two columns of the top panel of Table 2 show that the vast majority of Turks perceive correlations between most of the original DI family items and development in the direction of the DI model. In fact, on average, two-thirds of respondents gave DI answers to the original DI correlation items. However, endorsement varied across the individual items. Between 70 and 85 percent gave the DI answer concerning the correlation of development with living with parents-in-laws, gender equality, early and late marriage, arranged marriage, women never getting married, and high and low fertility. However, less than half gave DI answers concerning the correlation between development and family unity and loyalty, respect for elders, and delaying childbirth. This suggests that there is not strong support in Turkish society for these latter family aspects of DI.

The results for the original DI causation category show less support for the DI model than for the original DI correlation dimension. This can be seen in the fact that the average support for the original DI causation dimension is only just over one-half whereas it was two-thirds for the original DI correlation dimension. However, like the results for the original DI correlation category, results for the original DI causation items show variations in the level of DI endorsement for the idea of development as a cause of family change. For example, more than three-fifths said that development will increase gender equality and reduce living with parents-in-laws, early marriage, arranged marriage, and high fertility. However, for some other family attributes, respondents provided answers quite contrary to the predictions of the DI framework. For example, over two-fifths say that development increases respect for elders, and less than one-fifth believe the opposite. Similarly, less than a fifth believe that the causal relationship between economic growth and family unity and loyalty follows the DI model.

The lower and conflicting support for these two specific items across the two categories (correlation and causation) is consistent with the literature which reports little consensus on the distribution of these items between developed and non-developed places (Thornton et al., 2016; Abbasi-shavazi, et al., 2012). For these results we speculate that the family context may play a role in Turks' response for these items; close-knit family ties and a strong generational hierarchy characterize the Turkish family pattern, with parents expecting obedience and dependence (Kağıtcıbaşı 1996; Okman-Fişek and Sunar, 2005). Family unity and loyalty and respect for the elders are deeply entrenched and positively valued family aspects still prevailing in Turkish society. In this context of 'culture of relatedness', respondents do not tend to see straightforwardly that development is correlated with or decreases these family values. Also as Thornton et al., (2016) argue, most family items defined as modern were judged to be good,

thus, we conjecture that the study respondents, too, tend to rate these particular family ways both as good and modern.

We now turn to respondents' views in the last two columns of the top panel of Table 2 concerning the original DI future expectations category. These results show that a great majority—over three-fifths for each item--provided DI answers for all the original DI elements in this category; an average of 73% gave the DI response. These results show that Turkish people consider that Turkish families are changing in the direction perceived as modern.

Importantly, we note that three specific family items in the original DI—early marriage, arranged marriage and gender equality—consistently show very high DI responses in all the correlation, causation and future expectations categories, between 69 and 84 percent. We argue that this could be related to women's conditions in Turkish society. Early and arranged marriage and low regard for women's autonomy, all driven by patriarchal norms and values, have always been considered as markers of traditionalism and have been severely criticized by the modernizing elites. For example, the critique of early and arranged marriage was a popular topic of ottoman novels, and the need to improve women's status has been considered imperative for modernization (Kavas and Thornton, 2013). Despite years of reform efforts, early and arranged marriage and gender inequality persist and are still the objects of criticism in Turkey. This makes it likely that these discourses of DI are available to influence people's perception of the association of development with self-choice, late marriage and gender equality. So we expect that straightforward DI responses for these family aspects may stem from respondents' exposure to these discourses.

Responses to the New DI items

We now turn to the bottom panel of Table 2 and the distributions of responses concerning the new DI items. Beginning with the new DI correlation items we see that more than half of the

respondents said that the five items were positively correlated with development—reaching more than 70 percent for the cohabitation and premarital sex items. Altogether, the five items averaged 63 percent giving the DI response.

However, there was substantially less support for the new DI causation dimension, with respondents reporting average support only around 43%. In fact, the highest endorsement for development causing new DI family change reached 50 percent for only cohabitation and premarital sex. This indicates that for these new DI aspects of family life, there is little evidence that Turks view them as important consequences of development.

We join interpretations of others for the substantially lower support for the idea that development produces these new DI items than for the idea that development and these items are correlated (Abbasi-Shavazi, et al., 2012; Yount et al., 2008). It may be related to the social context provided in the framing of the questions asked of respondents. That is, because the new DI family aspects are often attributed to Western societies, respondents tend to correlate them directly with Western countries that they also see as developed. However, when respondents are prompted to consider these family elements in a non-Western context as they are asked to do in the causation questions (e.g., low income, agricultural society), they may conceive development differently from being Western and perceive that these family elements will not necessarily follow the Western model in a low-income country. More research is needed to document the reason for this low support for the causation dimension of these new DI items.

The distributions of the results in this new DI dimension of causation may also indicate that some of these family elements may be conceived of in Turkey as being more traditional than being modern. This is the case for two family aspects in this dimension: marital dissolution and abortion. For these items, a substantial majority split between development increasing or decreasing these aspects and another substantial fraction (29 and 25% respectively) reported no

causal relationship. We expect that varying responses for these family items are related to the historical existence of divorce and abortion in Turkey. Though denounced and rarely practiced, divorce and abortion have always existed--both in the Ottoman Empire and republican Turkey. Given this background, already familiar with these two particular family aspects, Turkish respondents may conclude that they are not a consequence of a developed society.

Turning to the new DI future expectations dimension, we see that whereas the new DI items received low endorsement in the causation dimension, they universally received very high support in the future expectations dimension--with the average percentage of DI responses being 80%. This indicates that even though respondents do not consider the new DI family aspects as important consequences of development, they conceive that these family elements will change in the direction of the DI model. We speculate that people observe that many aspects of Turkish families are changing in line with Western ways--with fertility declining, increasingly more people living independently of their parents, and young people becoming more independent—and this may lead them to believe that Turkey will inevitably follow the Western path of increased abortion, divorce, and unmarried sex, cohabitation and childbearing. That is respondents may conclude that even if these new DI family behaviors are not now frequently observed in Turkish society, they too will inevitably occur, just as in the West.

Responses to the General Development Questions

We also considered other aspects of DI that focused on general, standard development features—asking whether these items were correlated with development. We did so to examine whether the perceptions of development being correlated with certain family items are as high as perceptions of development being correlated with non-family items that are generally seen as constituting the core of the modernization paradigm. Table 3 presents the comparable DI items that concern standard socio-economic and demographic attributes including infant

mortality, high standard of living, working on farms, education, families having a computer in their homes, sick people visiting a local healer and women giving birth in a hospital.

Percent distributions show that for these non-family items, as expected, a large fraction of people, between 64 and 81%, provided answers consistent with the DI model. When we compare the Table 2 and Table 3 results for the correlation dimension, it is quickly identifiable that people have high endorsement of DI for many family relevant items that are similar to their support for the general, standard development items. Overall, these results indicate that people see some family attributes as correlated as highly with development as they see many non-family things associated with development—non-family things that are generally seen as correlated with development.

Furthermore, we argue that, the vast majority of people providing DI answers for socio-economic attributes and a large fraction having endorsement for family relevant aspects of DI indicate that people may perceive that certain family ways found in many Western societies are not aloof from other socio-economic attributes existing in those societies. This suggests that people's greater endorsement of family relevant aspects of DI may be stimulated by their conclusion that Western societies with great achievements in many social and economic spheres of life tend to have good lives and family ways. This echoes Thornton's argument that "It is the desire for social and economic improvement and the intellectual connection of good life with Western family forms that motivates non-Westerners to adopt Western family patterns" (2005:159).

Predictors of DI

We now turn to our explanatory factors and their relationships to our six DI dependent variables. Table 1 shows descriptive statistics for the explanatory variables used in the multivariate analysis. Region was coded as a categorical variable with the eastern side of

Turkey coded one. We examined two ethnic categories: Turkish (coded zero) and all-others (coded one), with the others being predominantly Kurdish.

We coded respondents' and parents' education in the same way, dividing education into three categories based on the number of years of schooling: 0–8, 9–12, and 13 and more years, with 0–8 being the reference category. Due to the problem of high degree of collinearity between marital status and the number of children, we constructed a combined variable of marital status and fertility with the following categories: never married, previously married, and currently married with no children, currently married with one child, with two children, and with three or more children. Currently married with one child was the excluded category in the regression equations. Age is included as a categorical variable divided between four age categories: 18–24; 25–29; 30–39; and 40–49, with age 30–39 as the reference category. We measured gender as a dichotomy (female equal to one and male equal to zero). We measured secularism as a dichotomous variable with a survey item that asked about importance of religion for the respondent; those saying that being religious was very important or somewhat important were coded zero and those saying that it was not important was coded one. We used ordinary linear regression models to examine the influence of these socioeconomic and demographic variables on people's acceptance of DI.

As noted earlier, we based our empirical work on the recent literature which argued that some elements of the family were not accepted and labeled as modern until as late as the 20th century and, thus, are conceptualized as "new" DI elements as opposed to the other elements called "original" DI. Using this particular distinction in our analyses, we separately analyzed the effects of the predictors on the endorsement of the original and new DI items. Also to examine how the explanatory variables predicted the different dimensions of DI, we analyzed each family element across three different dimensions of DI: correlation, causation and future

expectations. The result is six different dependent variables crosscutting the three DI dimensions and the original versus new DI distinction. Table 5 presents both the bivariate (M1 through M6) and multivariate (M1m through M6m) effects of region, ethnicity, education, marital status and fertility, age, gender, and secularism on each of these six dependent variables.

Overall, our results show that the estimated effects of the explanatory variables on DI endorsement vary both by original versus new DI items and across the DI dimensions. This suggests that constructing several different scales as our dependent variables enabled us to capture and examine variations and bifurcations in regard to the connections between family attributes and their perceived associations with development. One notable result of the regression analyses is that the two dimensions of DI correlation and DI causation generally yield results that are similar in magnitude and direction, but the scales about DI future expectations exhibit notably different results. That is, there is a marked difference in Turks' viewing of correlation and causation dimensions compared to their viewing of future trends in Turkey—a distinction we return to later. We now examine the results for each of the explanatory variables.

One of the most marked results concerns region of residence. Across both the original and new DI elements and across the correlation and causation dimensions the coefficients for eastern region tend to be particularly large and in the expected negative direction, with most being statistically significant. To illustrate, people in the eastern part of Turkey have DI scores that are nearly three-tenths of a standard deviation lower than scores in Western Turkey for both the original DI correlation and causation scales. And, for the new DI causation scale, we observe eastern people having an even more notable DI score of seven-tenths of a standard deviation lower than the rest of Turkey. However, in the future dimension, contrary to our

expectation, eastern residents tend to have higher DI scores than western residents on both the original and new DI scales.

Interestingly, we found a similar pattern in another predictor, ethnicity, which is in many ways related to the region of residence as most of the non-Turks live in the eastern part of Turkey. As with region, the coefficients for non-Turks on DI are, for the most part, negative and statistically significant in the correlation and causation dimensions (both original and new). However, in the future dimension, the bivariate coefficients are consistently positive. In the multivariate analysis the positive coefficients of ethnicity for the two future scales are reduced substantially and even turn negative. This suggests that the positive effects of ethnicity on the future expectations scales in the bivariate analyses are entirely the result of the other variables in the equations—most likely region since region and ethnicity are closely related. The negative coefficients on the future expectation scales also suggest that net of region, ethnic minority status has the same negative status on future expectations as it does on the other DI scales.

The persistence of regional inequality in Turkey implies that eastern and western residents have differentially experienced the country's social and economic changes, probably since the foundation of the republic. A recent OECD report rates Turkey as the country having the highest regional disparity among 30 OECD countries, with inequality comprising many other aspects of life including demography, community, social networks, and mobility (OECD, 2018). So it is in this setting that we speculate that as they are not fully integrated with the social, economic and demographic structures of Turkey, easterners in general and minorities in particular, may be seeing the future trends as more personal or local and that the DI future changes may be particularly relevant for them. For example, many of the family practices such as early marriage, marriages with religious wedlock, and high fertility that have declined extensively in western Turkey still prevail in eastern Turkey. That is, having less exposure to

many of the changes coming with Turkey's modernization programs, easterners and minorities may see it likely that many of the family elements that presently persist among them will eventually change in the future.

Turning now to education, recall that we had hypothesized that respondent's, mother's, and father's educations would all be positively related to the endorsement of DI. The coefficients in Table 5, however, are not generally consistent with those hypotheses. In fact, of the many coefficients documented for the education predictors in Table 5, there is only one positive and statistically significant coefficient. That is for respondent's having 9-12 years of education on the new DI causation scale, and that effect is substantially reduced in the multivariate analysis.

Furthermore, several of the education coefficients are in the negative direction and statistically significant. This is particularly the case for the future expectations scales—both the original and the new. In the bivariate analysis, the higher educated—and with higher educated parents—consistently expect less change in the DI direction. Some but not all of these negative education coefficients are reduced in size in the multivariate analysis.

While the unexpected negative effects of education on DI beliefs are contrary to studies in other countries that show positive influences of education on DI (See Thornton et al. 2014; Binstock et al. 2013; Melegh, et al. 2013; Thornton et al. 2012b; Abbasi-Shavazi et al. 2012), they are consistent with an earlier study in Turkey concerning DI attributes related to marriage and fertility that found that the most educated have the least endorsement of these aspects of DI (Kavas and Thornton, 2019). One possible explanation is that the negative effects of education on Turks' views about family change and development that are particularly significant for future expectations could be related to people's reception to the political and ideological current of "strengthening families" persisting in Turkey for almost two decades. As recent research

states, even though protecting the family has always been a prominent issue for governments, never before has it been targeted as a primary public policy concern as the current government has treated it for the last two decades (Yılmaz, 2015; Kaya, 2014; Yazıcı, 2012). Family-based public policies toward that end, included an establishment of a relevant ministry under the name of Family and Social Policies, promoting higher fertility with extended maternity leave, child support, more flexible working conditions in the public sector, and cash transfers for those caring for a family member in need. The protecting and strengthening family policy has stated that 'younger generations will be encouraged to take care of and live together with elderly parents, and for children in need of protection, return to the family and foster family services will be prioritized' (Government program, 2012).

In addition to formal policy programs, conservative discourse and political debates about the need to increase fertility, elimination of abortion and family planning, women's roles in the family all circulated widely and conspicuously in the media (Kaya, 2014; Somer, 2012). Also important was a pressing discourse laying out the ideal family with multigenerational-extended living and the segregated sexual division of labor as opposed to Western family patterns labeled as decadent. This discourse equated "strong family to strong society" and posed it as a shield against "cultural degeneration" in the face of an infusion of Western family ways (Yazıcı, 2012). So given this context, we conjecture that the educated are more knowledgeable about and attentive to all these public discourses and political debates. They may be either accepting of these ideological currents or considering that with the currency of these ideas it is less likely that much will change in the family in the DI model in the future.

As we noted earlier, parental education follows a similar pattern to respondent's education across the models, with a notable difference that mother's education tends to have a stronger effect on respondents' DI beliefs than father's education. Especially in the future

expectations scales, the coefficients for mother's education are higher than those of fathers and they are statistically significant. Mothers' education having more influence than fathers' education on respondents DI beliefs is interesting but not unexpected given Turkey's family context and the specific dynamics in parent-child relations. Even though fathers generally have greater decision-making power than mothers, they are often much less involved in children's lives. Mothers generally spend much more time during their children's socialization and more in contact with their children even in adulthood. As several studies point out, mothers, in general, are gatekeepers of the family, taking the majority of the family caretaker role and mediating between fathers and the children, particularly in cases of lack of communication or conflict (Kıray 1976; Kağıtçıbaşı, 1996). Expectedly, issues about family resonate more extensively with mothers who are more directly concerned about their children's family matters and thus future family changes.

Marital and parental statuses appear to have significant effects on DI beliefs, with the effects of being married but childless being particularly striking. Across the six models, being married but childless is consistently associated with the lowest levels of DI belief, with the negative distinction from the reference group (married with one child) being the largest. In both the original DI correlation scale and the original DI causation scale the married without children people have a statistically significant DI score that is about one-fourth of a standard deviation lower than the reference group, with the results changing only slightly in the multivariate models. Furthermore, the results across the models show that while the childless married generally have lower DI scores than the married with one child, there are no significant negative differences between having two or three children compared to having one child — which suggests that it is parenthood that centrally matters in these results.

Interestingly, being never married—compared to being married with one child—has negative DI scores on both the original DI correlation and original DI causation scales, although it is only statistically significant in the original DI correlation dimension. That effect is stronger in the multivariate model than in the bivariate model. The previously married have a statistically significant positive effect on the original DI future expectations belief scale, with sizeable coefficients in the predicted direction, consistent with our hypothesis.

The low endorsement of DI by both the never married and the childless marrieds is contrary to our hypothesis, yet is consistent with Kavas and Thornton's (2019) study on DI and fertility in Turkey which found a negative effect of being childless on DI beliefs about fertility. We speculate that the negative effect of being never married and childless married on several types of DI beliefs are related to particularities of Turkish family norms. In Turkey marriage and having children are important pillars of family formation where couples without a child do not fit into the mainstream definition of family broadly accepted by the population. Turkish family norms equally denounce being unmarried and being childless married, with unmarried women, for example, frequently labeled as *evde kalmış* (spinster, old maid) and couples without children as *köksüz* (rootless). Therefore, given the strong social pressure, being unmarried or childlessness are not issues individuals can voluntarily decide as such. So it is not surprising that voluntary childlessness is almost nonexistent in Turkey (TDHS 2013) and most Turks express a strong desire to have a family, and very few imagine a childless future. Given this context, it could be that both the never marrieds and childless marrieds idealize having a mainstream family with children and therefore may think more in line with traditional Turkish family norms for the most part, even more than those already married with one or more children. The effects of having two or three children on the original DI future expectations dimension (M3) shows an interesting result. In both the bivariate and multivariate analyses, the estimated

effects of having two or three children are positive in direction and significantly different from having one child. Furthermore, it is also interesting that this effect becomes noticeable only in future-specific questions in original DI but not in the future distinction of new DI, which leads us to consider that these results may be related to the family elements asked of respondents in the original-DI, including intergenerational living, gender equality and romantic love between spouses. Our conjecture is that original DI items may be more relevant to people who are married with multiple children as they actually experience living in big families. In many ways, the issue of generational co-residence may resonate with the parents of large families more sharply so that they evaluate these matters more intensely and distinctively compared to parents of smaller families. For example, they may be more aware of the rarity of larger families in a country of declining fertility and multigenerational living. Moreover, facing the challenges of having a large family, they may tend to believe that extended living in any form will decline in the future.

Furthermore, parents of big families are more likely to have at least one daughter, which may lead them to be more sensitive about gender equality, another item in the original DI scale. We assume that having a daughter affects the ways parents understand and evaluate gender issues; for example, they may be more aware of the discrimination women are presently facing in society and supportive of policies that aim to eradicate gender gaps in Turkey. Thus, these parents may incline to believe that Turkey will achieve gender equality in the future.

We observe a complex but generally negative relationship of respondent's age to the DI scales—with the young endorsing DI more frequently. The complexity of the relationship is demonstrated in the fact that the positive effects of being in the 18-24 age category are relatively modest across the bivariate models. However, in the multivariate models the contrast between the young and the old is more marked and more statistically significant. In fact, in the

multivariate models the effects of being 18-24 ranges from .12 to .33 standard deviations across the six dependent variables, with some of the six multivariate coefficients being statistically significant.

Further analysis indicates that the difference between the age effects in the bivariate and multivariate equations is largely due to the marital status and child number variables (results not shown). This occurs because those 18-24 are mostly in the never-married and married but childless categories—groups that, as previously discussed—tend to be low on DI endorsement. So the multivariate estimation of age in the same equation with marital and fertility status changes the effect of young age on DI belief with results indicating that young people are more accepting of DI in Turkey.

This high endorsement of DI by the young people could be due to their easy access to global flows of information. As elsewhere in the world, young people in Turkey are digital sophisticates, having easy and instant access to social media, news and show streams, social networking sites, etc. Particularly relevant is online Western media-services (e.g. Netflix) that allow Turkish young people to have very easy access to Western movies, shows, and documentaries. In these programs, young people are extensively exposed to various aspects of Western family relationships and they generally become familiar with such family ways as cohabitation, premarital sex, marital breakup, gender equality, and romantic love more often than the older generations. Thus, these younger generations often tend to relate these new DI family features to Western societies and also see a causal relationship between development and Western family practices.

The effect of gender on DI belief is particularly striking in both bivariate and multivariate models. Interestingly, however, this gender effect seems to vary by whether the focus is on original or new DI. In all dimensions of original DI, the effect of being female is

positive in direction, consistently large and statistically significant. While the effects are somewhat reduced in each of the multivariate models, they are still statistically significant. In the new DI variables, however, the positive effect of gender disappears and for the new DI causation scale it becomes strongly negative and statistically significant in both the bivariate and multivariate estimations.

This distinction between the positive effects of gender on each of the original DI scales and the neutral or negative effects of gender on the new DI scales is likely due to the particular family matters asked of respondents in each DI distinction. We surmise that family aspects of the original DI appear to have a direct bearing on women's lives. Furthermore, such family aspects as gender equality and romantic love between spouses are especially idealized and thus may be readily associated with a modern and good life. By way of contrast, the items addressed in the new DI scales—including premarital sex, unmarried childbearing, cohabitation, abortion and divorce—are not only rare and normatively proscribed in Turkey, but also seen as detrimental to women's well-being in many ways. The social benefits and social supports associated with marriage and childbearing in Turkish society may thus play a role in women's attitudes. That is, while such issues as cohabitation or unmarried childbearing may correspond to liberal and progressive family values in an egalitarian society with people practicing these behaviors treated fairly, they are not treated the same in Turkey. So, living in this community, where new DI family ways are treated with stigma, women may not want to divest themselves of the social status and support that will be awarded to them by their family and community.

In just one example—the case of a divorce—a woman mostly bears the brunt of social isolation, in addition to financial and emotional hardships. As a Turkish saying states, “with divorce women die a bit”. As empirical evidence shows, after divorce women create strategies to cope with social pressures by not telling people about their divorce and dressing or behaving

more conservatively (Kavas and Hoşgör, 2011). So, given this social context, where women invest more in family, take larger responsibility and face the social consequences in case of breaching the family norms, it is not unexpected that the new DI items may not resonate well with women in general.

Turning now to secularism, the final predictor in Table 5, the data are generally consistent with our hypothesis that secularism is positively related to people's endorsement of DI beliefs. This is an expected finding because DI's modern family patterns are generally considered to be in conflict with Islamic principles. The conservative Muslim community in Turkey does not embrace ideas of DI particularly as they are related to family, and throughout Turkey's modernization efforts, these conservative groups explicitly expressed their objection regarding reform movements centered on the family (Kavas and Thornton, 2013). Interestingly, however, similar to the effect of gender, the estimated effect of secularism on DI beliefs varies by the distinction of original versus new DI family aspects. While being secular is positively associated with DI beliefs in most of the models, the coefficients are large and significant only in the original DI correlation and causation dimensions (M1 and M2). For example, in the original DI causation dimension the bivariate effect size of secularism is nearly two-fifths of a standard deviation and in the multivariate model it rises to nearly one-half of a standard deviation and still significant (M2 and M2m). In the new DI future dimension, the effect of being secular on DI beliefs are not positive.

This distinction across original and new DI is a rather unexpected outcome which we speculate could be due to the new DI family aspects being associated with promiscuity by many and thus rejected. In Turkish culture, sexual conduct outside of marriage is taboo and deeply proscribed—norms broadly shared by a majority including the secular. For example, controlling women's sexuality, (e.g. female virginity before marriages) is a “collective” norm

(Kandiyoti, 1997; Cindioğlu, 1997). Importantly, even though, historically it was the secular cadre who gave extensive support for the modernizing reforms in the family, they, too, gave very limited support for new DI family attributes, as they were seen as decadent aspects of modern lifestyles. So we conjecture that since new DI family aspects are generally denounced in Turkey, secular people, too, may not relate it to development or a route to a good life and do not consider that these aspects will increase in Turkey in the years to come.

CONCLUSION

Using data from an individual-level national survey of urban Turks, this research examined whether ordinary people report an understanding and acceptance of the DI messages about the relationship between development and family characteristics characterized as modern by DI. We examined both original DI and new DI and, within each, three dimensions of DI: correlation, causation, and future expectations. We also investigated the association of social and economic factors with DI beliefs.

Univariate distributions for respondents' views about various family elements for each of the three dimensions and for each of the original versus new DI items confirm that the vast majority of Turks endorse developmental idealism beliefs for most of the survey items in these categories. For example, in original DI correlation, causation and future expectations categories, respondents provided substantial support for such family items: early marriage, arranged marriage and gender equality. However, for some specific items including family unity and loyalty and respect for elders in the correlation and causation dimensions, respondents provided answers opposite to the predictions of the DI framework. We speculated above that these varied responses for these family aspects are related to a substantial extent to the particularities of Turkish family norms and values. That is, people's greater endorsement for the marriage practices and gender equality could be related to the issue of women's status in

Turkey that is controversial with persisting debates and policy efforts shaping respondents' understanding and acceptance of these issues in line with the DI model. And, we related the low support for family unity and respect for elders to the important roles these family aspects play in Turkish family norms.

On the other hand, in the new DI categories respondents provided substantial support for the new DI idea that unmarried childbearing, cohabitation, premarital sex, abortion, and divorce were positively correlated with development and expected them to increase in the future, they did not endorse the idea that these same items were caused by development, the causal dimension. This is an important finding that is consistent with the DI literature that provides evidence that respondents associate these family aspects with Western countries but not with development per se (Abbasi-Shavazi, et al., 2012; Yount et al., 2017). We further explained that this pattern could also be attributed to the Turkish family context where most of these family elements are widely viewed as immoral.

Also, our study provides evidence that family elements may be seen as connected to development in different ways in different locations (Thornton et al., 2016). For example, for divorce and abortion respondents generally split between development increasing or decreasing these family aspects. We explained the unexpected responses for these two family aspects with Turkish family norms and values; that is, divorce and abortion were historical realities of Turkey, and even though they were not valorized, people have always been familiar with them.

As we noted earlier, one of the contributions of our paper is its focus on a quite detailed conceptualization and measurement of DI as a dependent variable. We used factor analysis to construct six different dependent variable scales that crosscut the three DI dimensions and the original versus new DI distinction. To our knowledge, this is the first study to predict six different dependent variables indicating different aspects of DI which allowed us to examine

whether the influence of individual predictors vary in strength and direction across DI dimensions and original versus new DI distinctions. Our findings provided an important contribution with systematic and detailed empirical support for the theorized link between developmental idealism and family characteristics viewed by DI as modern.

Our results showed that in each of the six DI scales, the estimated effects of explanatory variables on DI endorsement varied both by correlation, causation and future expectations dimensions and original versus new DI distinction. For example, region of residence exhibited striking results in showing consistent and predicted positive relationships with both the original and new DI correlation and causation scales but predicted future expectations scales for both original and new DI positively in the opposite direction from what we predicted. In a previous discussion we speculated that easterners may have higher DI scores than westerners on the future expectations scales because they are not fully integrated with the social, economic and demographic structures of Turkey. The easterners may be seeing the future trends as more personal or local and that the new DI future changes may be particularly relevant for them.

Contrary to our expectations of education being positively related to endorsement of DI, most of the education coefficients are in the negative direction and many of them are statistically significant. This is particularly the case for the future expectations scales—both the original and the new DI. The higher educated—and with higher educated parents—fairly consistently expect less change in the DI direction. We explained the negative effect of being educated on the future dimension with Turkish people's response to the political and ideological current of “strengthening families” promoted in Turkey for quite some time.

Marital and fertility statuses were related in substantial and statistically significant ways to DI beliefs. However, we found that the estimated effects were in a direction different from our theoretical predictions, with the never married and childless married tending to have lower

endorsement of DI than do the currently married with children. These unexpected findings, as we discussed previously, could be related to the strong social pressure that marginalizes the unmarried and childless married which may have led these individuals to idealize marriage and parenthood and embrace traditional family values—and thereby leading to less support of DI.

Age generally displayed similar effects across the six dependent variables, with the young people having higher endorsement of DI than the older generations. We expected that this could be related to their easy and instant access to global flows of information, especially Western media services which lead them to be exposed increasingly to Western family relationships.

The striking effects of gender on DI beliefs vary by whether the focus is on original or new DI scales. The effect of being female was positive and significant in the original DI scales, and neutral or negative in the new-DI. We previously noted that this distinction is likely due to the particular family matters asked of respondents in each DI distinction and particularly the negative social attitudes to new DI items and how these family behaviors are seen as harmful to women's well-being. As with gender, secularism, followed a similar pattern in terms of the significant effects changing by the original versus new DI distinction, which as we speculated is related to cultural norms that proscribe new family items deeply and that these collective norms are shared by a broad population including the seculars.

All in all, our paper provides evidence that understanding and acceptance of DI beliefs vary by the original versus new DI distinctions and across the three dimensions of DI: correlation, causation and future expectations. Thus our paper provides further evidence that DI is not a unified package of ideas but is a network of schemas related to each other with varying intensity (Thornton et al., 2012; Allendorf & Thornton, 2015; Thornton et al., 2016). More research is needed to test our findings as to how and why people in our study link together

various aspects and dimensions of DI. Furthermore, given the substantial role of social context shaping perception and endorsement of DI, future research should further investigate whether individuals elsewhere in the Muslim world link together various aspects of DI in ways similar to Turks.

While our paper has contributed important information to DI research by investigating several individual factors influencing DI's distribution in Turkey, we were unable to investigate other important factors potentially shaping DI endorsement. For example, we were unable to investigate the influence of employment status and income level because of extensive missing data on these variables. Also, lack of available data prevented us from including many other potential factors (e.g., as media exposure) on people's perceptions and acceptance of DI. Future research should examine additional individual characteristics and their influence on DI endorsement. Also, we note that our urban sample limited us to generalize our findings to Turkish cities—a limitation of this study.

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Table 1: Descriptive statistics for dependent and explanatory variables ($n = 2034$).

		%	M	SD
Original DI correlation			2.05	0.93
Original DI causation			1.82	1.02
Original DI future expectations			1.52	0.65
New DI correlation			3.17	1.52
New DI causation			2.15	1.85
New DI future expectations.			3.19	1.04
Region	East	14		
	West	86		
Ethnicity	Turks	74.2		
	NonTurks	25.8		
Education	0-8 years	43.1		
	9-12 years	36.3		
	13+ years	20.6		
Father's education	0-8 years	80.8		
	9-12 years	13.7		
	13+ years	5.5		
Mother's education	0-8 years	89.5		
	9-12 years	7.6		
	13+ years	2.9		
Marital status and number of children	Never married	34.9		
	Previously married	4.2		
	Married with no child	5.6		
	Married with 1 child	14.0		
	Married with 2 children	23.1		
	Married with 3 children	18.1		
Age	18-24 years	25.2		
	25-29 years	18.2		
	30-39 years	32.3		
	40-49 years	24.3		
Gender	Male	50.5		
	Female	49.5		
Secularism	Religious	97.5		
	Secular	2.5		

Table 2: Percentages of respondents giving DI and Non-DI responses for Original DI and New DI items within three dimensions of DI¹

	Correlation dimension		Causation dimension		Future expectations dimension	
	(Family attributes more common in developed or not developed societies)		(A development program increase or decrease family attributes)		(Future trends in Turkey)	
	Not developed	Developed	Increase	Decrease	Increase	Decrease
Original DI Items						
<i>Living with parents or in-laws²</i>	78,5	5,7	18,7	63,2	16,9	71,1
<i>Romantic love between spouses*</i>	7,7	55,9	50,1	12,2		
<i>Gender equality</i>	8,1	70,8	68,8	9,2	80,8	6,3
Family unity and loyalty*	44,5	22,5	52,0	14,5		
Respect for elders*	47,8	18,5	43,3	17,3		
Early marriage	84,4	4,8	11,6	74,2	9,4	80,3
Late marriage	7,0	72,7	55,3	21,5	78,3	5,9
Arranged marriages*	83,5	4,8	12,6	71,5		
Women never getting married	6,9	69,5	45,4	30,3	75,0	8,4
Delaying childbirth	23,2	47,2	54,6	18,5	67,3	11,8
High fertility	77,3	8,9	17,6	61,8	23,8	63,3
Low fertility	8,5	72,8	51,3	24,5	63,8	15,3
Average percentages endorsing /not endorsing DI		67.1 / 10.6		52.3 / 22.7		72.5 / 12.2
New DI Items						
<i>Unmarried childbearing</i>	18,5	59,5	36,6	36,4	79,8	8,4
<i>Cohabitation*</i>	8,4	72,6	49,5	24,7		
<i>Premarital sex</i>	7,5	74,0	51,4	25,5	82,4	6,1
<i>Abortion</i>	16,2	58,6	44,6	30,1	72,7	11,5
<i>Marriages breaking up</i>	20,2	52,4	32,6	38,0	84,4	5,1
Average percentages endorsing / not endorsing DI		63.4 / 14.2		42.9 / 30.9		79.8 / 7.8

¹The original respondent answers were coded into three categories: DI, non-DI, and in-between. The numbers presented in the table are the percentage who gave DI and non-DI answers. For each of the items, we indicate the DI answer in bold. These percentages were calculated with the total number of respondents in the denominator and DI answers or non-DI answers in the numerator—and multiplying the result by 100. The average numbers presented in the table are the averages of the percentages who gave DI and non-DI answers.

² Italics are items used in the scale constructed to be used as our dependent variables. *Items with asterisk are not repeated in the future expectations dimension.

Table 3: Percentage and average percentage of respondents giving DI and non-DI response for general DI questions (correlation dimension).

Attributes more common in developed or not developed societies

<i>General DI items³</i>	<i>DI response</i>	<i>Non-DI response</i>
Infant mortality	71,9	10,4
High standard of living	81,3	6,1
People working on farms	64,2	10,6
Being educated	77,1	5,5
Families having computer in their homes	65,8	4,5
Sick people visiting a local healer rather than visiting a medical doctor	79,4	8,3
Women giving birth in a hospital rather than giving birth at home	66,5	10,7
Average percentages	72,3	8,0

³ General DI questions were asked only in the correlation dimension and not repeated in other dimensions. The original respondent answers were coded into three categories: DI, Non-DI, and in-between. The numbers presented in the table are the percentage who gave DI and non-DI answers. These percentages were calculated with the total number of respondents in the denominator and DI answers or non-DI answers in the numerator—and multiplying the result by 100. The average numbers presented are the average calculations of percentages who gave DI and non-DI answers.

Table 4: Factor loadings for new and original DI family elements within three dimensions of DI.

		Correlation	Causation	Future expectations
Original DI items	Living with parents-in-laws	0.480	0.522	
	Romantic love bet spouses	0.580	0.507	X
	Gender equality	0.639	0.864	
	Average	0.566	0.631	
	Eigenvalue ⁴	1.639	1.775	
	Cronbach's alpha	0.412	0.487	
New DI items	Unmarried childbearing	0.735	0.829	0.729
	Cohabitation	0.715	0.851	X
	premarital sex	0.727	0.906	0.632
	Abortion	0.510	0.800	0.543
	Marriages breaking up	0.567	0.725	0.712
	Average	0.651	0.822	0.654
	Eigenvalue	2.704	3.708	2.283
Cronbach's alpha	0.642	0.812	0.554	

⁴ Presented eigenvalues are the first eigenvalues; other values are below 1.

Table 5: Bivariate and multivariate regression analysis (OLS) of six DI belief scales on demographic characteristics

		Original DI Correlation Scale		Original DI Causation Scale		Original DI Future Expectations Scale		New DI Correlation Scale		New DI Causation Scale		New DI Future Expectations Scale	
		M1	M1m	M2	M2m	M3	M3m	M4	M4m	M5	M5m	M6	M6m
Region	West	Ref	ref	Ref	ref	ref	ref	ref	ref	ref	ref	ref	ref
	East	-0.294*** (0.064)	-0.237*** (0.070)	-0.269*** (0.064)	-0.260*** (0.070)	0.293*** (0.064)	0.281*** (0.070)	-0.042 (0.064)	-0.086 (0.071)	-0.710*** (0.062)	-0.698*** (0.068)	0.277*** (0.064)	0.245*** (0.071)
Ethnicity	Turks	Ref	ref	ref	ref	ref	ref	ref	ref	ref	ref	ref	ref
	NonTurks	-0.200*** (0.051)	-0.154** (0.057)	-0.125* (0.051)	-0.096 (0.057)	0.085 (0.051)	-0.077 (0.057)	0.034 (0.051)	0.005 (0.057)	-0.301*** (0.050)	-0.106† (0.055)	0.095† (0.051)	-0.037 (0.057)
Education	0-8 years	Ref	ref	Ref	ref	ref	ref	ref	ref	ref	ref	ref	ref
	9-12 years	0.085 (0.050)	0.079 (0.057)	-0.020 (0.050)	0.000 (0.056)	-0.176*** (0.050)	-0.098 (0.057)	-0.043 (0.050)	-0.021 (0.057)	0.124* (0.050)	0.025 (0.055)	-0.198*** (0.050)	-0.168** (0.057)
	13+ years	-0.026 (0.059)	0.037 (0.072)	-0.100 (0.059)	-0.040 (0.071)	-0.202*** (0.059)	-0.077 (0.072)	-0.113 (0.059)	-0.041 (0.072)	0.086 (0.059)	-0.038 (0.070)	-0.158** (0.059)	-0.093 (0.072)
Father's education	0-8 years	Ref	ref	Ref	ref	ref	ref	ref	ref	ref	ref	ref	ref
	9-12 years	-0.038 (0.065)	-0.030 (0.075)	-0.114 (0.065)	-0.039 (0.074)	-0.150* (0.065)	-0.017 (0.075)	-0.084 (0.065)	-0.053 (0.076)	-0.005 (0.065)	-0.069 (0.073)	-0.069 (0.065)	0.097 (0.075)
	13+ years	-0.188 (0.098)	-0.150 (0.122)	0.000 (0.098)	0.100 (0.122)	-0.069 (0.098)	0.209 (0.122)	-0.163 (0.098)	-0.108 (0.124)	0.037 (0.098)	-0.005 (0.119)	-0.106 (0.098)	0.207 (0.123)
Mother's education	0-8 years	Ref	ref	ref	ref	ref	ref	ref	ref	ref	ref	ref	ref
	9-12 years	-0.048 (0.084)	-0.070 (0.097)	-0.134 (0.084)	-0.089 (0.096)	-0.165* (0.084)	-0.077 (0.097)	-0.050 (0.084)	-0.005 (0.098)	0.018 (0.084)	-0.098 (0.094)	-0.225** (0.084)	-0.226* (0.098)
	13+ years	-0.211 (0.133)	-0.154 (0.158)	-0.021 (0.133)	-0.083 (0.157)	-0.372** (0.133)	-0.427** (0.158)	-0.235† (0.133)	-0.152 (0.159)	0.026 (0.133)	-0.092 (0.154)	-0.394** (0.133)	-0.473** (0.159)
Marital status & child number	Never married	-0.152* (0.070)	-0.233** (0.082)	-0.091 (0.070)	-0.122 (0.081)	0.095 (0.070)	0.088 (0.082)	0.029 (0.070)	-0.073 (0.083)	0.006 (0.070)	-0.075 (0.080)	-0.027 (0.070)	-0.080 (0.082)
	Previously married	0.138 (0.123)	0.181 (0.124)	0.080 (0.123)	0.116 (0.124)	0.307* (0.122)	0.307* (0.125)	0.110 (0.123)	0.174 (0.126)	0.002 (0.123)	0.073 (0.122)	-0.004 (0.123)	-0.032 (0.126)

	Childless married	-0.248* (0.111)	-0.231* (0.111)	-0.240* (0.111)	-0.207† (0.111)	-0.051 (0.11)	-0.066 (0.112)	-0.247* (0.111)	-0.273* (0.113)	-0.094 (0.111)	-0.098 (0.109)	-0.146 (0.111)	-0.198† (0.112)
	Married 1child	Ref	ref	ref	ref	ref	ref	ref	ref	ref	ref	ref	ref
	Married 2children	-0.085 (0.075)	-0.034 (0.077)	0.052 (0.075)	0.093 (0.077)	0.208** (0.075)	0.208** (0.077)	0.091 (0.075)	0.139 (0.078)	-0.077 (0.075)	-0.031 (0.075)	0.071 (0.075)	0.034 (0.078)
	Married 3children	-0.142 (0.079)	-0.001 (0.086)	0.012 (0.079)	0.127 (0.086)	0.275*** (0.079)	0.223** (0.086)	0.088 (0.079)	0.146 (0.087)	-0.094 (0.079)	0.084 (0.084)	0.086 (0.079)	-0.007 (0.087)
Age	18-24	0.141* (0.059)	0.329*** (0.078)	0.025 (0.059)	0.212** (0.077)	0.022 (0.059)	0.124 (0.078)	0.096 (0.059)	0.251*** (0.079)	0.118* (0.059)	0.195** (0.076)	0.035 (0.059)	0.123 (0.078)
	25-29	0.110 (0.065)	0.191** (0.068)	-0.055 (0.065)	0.041 (0.068)	0.077 (0.065)	0.154* (0.068)	0.039 (0.065)	0.126† (0.069)	0.025 (0.065)	0.063 (0.067)	0.061 (0.065)	0.105 (0.069)
	30-39	Ref	ref	ref	ref	ref	ref	ref	ref	ref	ref	ref	ref
	40-49	0.132* (0.059)	0.095 (0.061)	-0.006 (0.060)	-0.062 (0.061)	0.090 (0.060)	0.021 (0.061)	0.002 (0.060)	-0.053 (0.062)	0.047 (0.060)	0.032 (0.059)	0.070 (0.060)	0.022 (0.061)
Gender	Male	Ref	ref	ref	ref	ref	ref	ref	ref	ref	ref	ref	ref
	Female	0.133** (0.044)	0.114* (0.047)	0.242*** (0.044)	0.210*** (0.046)	0.218*** (0.044)	0.175*** (0.047)	0.033 (0.044)	0.001 (0.047)	-0.248*** (0.044)	-0.263*** (0.046)	0.032 (0.044)	-0.013 (0.047)
Secularism	Religious	Ref	ref	ref	ref	ref	ref	ref	ref	ref	ref	ref	ref
	Secular	0.296* (0.143)	0.372** (0.145)	0.382** (0.143)	0.468*** (0.144)	0.094 (0.143)	0.217 (0.145)	0.182 (0.143)	0.231 (0.147)	0.118 (0.143)	0.015 (0.142)	-0.151 (0.143)	-0.015 (0.146)

*Standard errors are presented in parentheses under the coefficients.

* $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$

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