Inter-Spousal Communication in Consanguineous Marriages: Evidence from Egypt

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Abstract: This paper examines the relationship between consanguinity and frequency of communication between spouses using a nationally representative sample of young married respondents in Egypt. Using a variety of estimation techniques, the results suggest that being related to one's spouse does not influence inter-spousal communication. The paper presents first empirical evidence which links consanguinity and communication dynamics in the household. In terms of policy implication, communication plays a critical role in marriage as it helps maintain quality relationship between spouses and directly contributes to marital satisfaction and hence divorce rates. In our model, we also control for other factors which determine spousal communication.

Introduction

Consanguineous marriages refer to unions between individuals with blood relationship. Often, such marriages include first cousins or second cousins (Hamamy 2012, Bittles & Black 2011). Approximately 991 million people live in countries where consanguineous marriages account for 20% to over 50% of total marriages (Bittles & Black 2015). Countries that report the highest rates of consanguineous marriages are primarily located in the Middle East, North Africa and Western Asia. There is great variation in reported rates and trends of consanguinity due to regional disparity and varied methods of measurement. Analysis of time-series exhibits declining trends of consanguineous marriages in Jordan (Hamamy *et al.* 2005), Oman (Islam 2012), Palestine (Assaf & Khwaja 2009) and Lebanon (Khlat 1988). However, traditionally rooted belief in kin-marriages continues to be persistent in Qatar (Bener & Alali 2006), Yemen (Jurdi & Saxena 2003) and United Arab Emirates (Al-Gazali *et al.* 1997). Consanguinity rates in Sudan (44-49%), Saudi Arabia (25-42%), Qatar (27-35%) Jordan (19-39%), Egypt (14-24%), United Arab Emirates (20-30%), Morocco (9-10%), India (7-42%) show varying but significant values (Hamamy *et al*. 2011).

Marriage within family is preferred for both economic and social reasons. Economic incentives in favor of consanguineous marriages operate in two forms. Such marriages potentially help preserve family assets by preventing disintegration of family wealth (Bittles 1994, Barth 1954). Further, intra-family marriages are associated with lower financial costs due to pre-existing affiliation between the couple's families (Reddy 1988, Salem & Shah 2016). Previous studies also cite that kin marriages are prevalent in communities in which parents play a critical role in marriage decisions and such unions are believed to contribute to better compatibility between couples, avoid uncertainty about family background resulting from exogamous marriages, and afford women better treatment and authority in the married household (Dronamraju & Khan 1963, Salem & Shah 2016, Hussain 1999, Khlat *et al.* 1986).

The topic of consanguinity has been extensively studied in context of sociodemographic variables that are highly correlated with such marriages and the potential adverse health outcomes affecting offspring resulting from such unions. However, the literature on impact of consanguineous marriages on interpersonal spousal relationship is almost non-existent. Previous studies on the topic are limited to the examination of relation between consanguineous marriage and incidence of divorce. This paper studies the impact of consanguineous marriage on communication between spouses using a nationally representative sample of survey responses from young married couples in Egypt. We contribute to the literature in two ways. Firstly, our research seeks to investigate if intra-family marriage affects interaction between couples. This is relevant because communication plays a critical role in marriage as it helps maintain quality relationship between spouses and also directly contributes to marital satisfaction (Fincham 2004, Montgomery 1981). Secondly, the dataset allows to develop insight into married life dynamics of youth which make up near or over 30% of population in Middle East and North Africa (MENA) (Hassan 2016). The results are key to understanding if communication in marriage is impacted by family relation between couples, especially among related youth couples who are critical to the demographic character of the MENA region where kin-marriages are highly preferred.

In terms of expectations of the results, being in a consanguineous marriage can have either a negative or a positive effect on the level of communication in the marriage. There are a number of reason for this. First, consanguineous marriages are more prevalent in conservative societies (such as tribal and close-knit communities) with low education levels and early age marriages

which often marginalize independent decision making and communication within the household. Second, being married to one's relative (often first cousin) could play a role in taking the spouse for granted and dismissing spousal needs due to the high cost of a break up. However, this rationale could also play an opposite role in nurturing a better household environment to avoid the potential of a family break up. Finally, an incentive to pursue consanguineous marriage is due to the belief that it contributes to better compatibility between couples (due to family connection and history), and affords women better treatment and authority in the married household, all of which could affect inter-spousal communication

Literature Review

Marriage among blood relatives remains a highly prevalent feature of communities in MENA countries and certain parts of Asia. This topic has been of great interest to researchers as the custom of consanguineous unions is intricately tied to the social fabric and family dynamics of practicing communities. Previous literature on this topic abounds in the investigation of social determinants and health impacts of such unions. Education is an important factor that influences choice of spouse. Educated individuals make informed decisions based on knowledge of adverse health impacts resulting from kin marriage. However, the literature finds that although women's education level is inversely related with consanguineous marriages, men with higher education are more likely to be partners in such unions. Country-specific studies using data from Yemen (Jurdi & Saxena 2003), Turkey (Koc 2008) and Tunisia (Kerkeni *et al.* 2006) all confirm this relationship. Khoury & Massad (1992) assert that highly educated males may be under intense familial pressure to marry within the family probably due to their ability to support the family financially. Consanguineous couples are also more likely to get married at an earlier age (Shami *et al*. 1990, Givens & Hirschman 1994). Studies analyzing data from Lebanon (Khlat 1988), Kuwait (Radovanovic & Behbejani 1999) and Saudi Arabia (Saedi-Wong *et al.*1989) have also found low socio-economic status as an important determinant of high incidence of consanguineous marriages. Analysis of regional characteristics provides insight into geographical variation in occurrence of such marriages. The cases of Egypt (Hafez *et al.* 1983), Syria (Othman & Saadat 2009), Jordan (Khoury & Massad 1992), United Arab Emirates (Al-Gazali *et al.* 1997), Turkey (Koc 2008) and India (Rao *et al*. 1972) reveal that higher rates of consanguineous marriages are often observed in rural areas. This is expected as rural areas are characterized by close-knit communities with stronger family and tribal relations, low education levels and early age of marriage (Shawky *et al*. 2011).

Beyond the discussion of social correlates, the literature on consanguineous marriages is also heavily focused on its effect on reproductive outcomes and offspring health. Consanguineous marriages are positively associated with higher rates of fertility, prenatal loss, neo-natal and post-neonatal deaths, abortions and stillbirths (Bittles *et al.* 1993, Mokhtar *et al.* 2001, Kerkeni *et al*. 2007, Pederson 2002, Tuncbilek & Koc 1994). However, there are some studies that challenge these findings. Study of data from Kuwait (Al Awadi 1989), Saudi Arabia (Al-Abdulkareen & Ballal 1998, Husain & Bunyan 1997) and Lebanon (Khlat 1988) reveal no difference in reproductive wastage resulting from consanguineous and non-consanguineous unions. Evidence from Jordan reveals no impact of consanguinity on fertility (Khoury & Massad 2000). The health impacts of marriages between relatives goes beyond reproductive health. The progeny of related couples are at a higher risk of adverse health outcomes due to expression of autosomal recessive disorders. A multi-population meta –analysis conducted by Bittles & Black (2010) finds an excess death rate of 1.1% in offspring of first cousins. Children of consanguineous couples are also at a

greater risk of congenital malformations and illnesses (Abdulrazzaq *et al.* 1997, Hamamy & Al-Hakkak 1989, Stoltenberg *et al.* 1997, Bener & Hussain 2006).

The literature on the determinants of consanguineous marriages, social correlates and health effects is large and rich. However, the impact of consanguineous marriage on intra-marriage dynamics is relatively under-studied. There has been some attempt to study the impact of consanguinity on survival of marriages with conflicting results. Hussien (1971) and Saadat (2015) find low divorce rates among such marriages in Egypt and Iran respectively while Mutharayappa (1993) documents high divorce rates among inter-tribal marriages in India. This research paper focuses on exploring the effect of consanguineous marriage on spousal communication. This allows to develop a multi-dimensional approach to studying stresses in marital relationship rather than simply examining separation.

We use data from 2009 and 2014 waves of Survey of Young People in Egypt (SYPE) as the survey asked respondents detailed questions on inter-spousal communication regarding family problems, work life, daily routine, children's future and sexual relations. The case of Egypt is suitable as incidence of consanguineous marriage is high (about 35%) (Shawky *et al.* 2011). Moreover, Egypt's Central Agency for Public Mobilization and Statistics (CAPMAS) reported the highest divorce rate, in over two decades, for the country in 2015, which is about 2.2 cases per 1,000 people (Egypt Independent, 2017). This points to the increasing prevalence of marital conflict in the society. Further, in line with the demographic transition in MENA region, Egypt is experiencing a "youth bulge" in that over 54% of its population is under 24 years of age (LaGraffe 2012). Therefore, we hope to study one aspect of the challenges faced by young people in the traditional setting of consanguineous marriage, still contemporarily relevant in conservative Egyptian society. Interpersonal communication between partners is a critical factor in marriage as it plays a role in family planning decisions (Lasee & Becker 1997, Sharan & Valente 2002), dissolution of conflict and management of distress (Markman *et al.* 2010, Billings 1979), influences power dynamics between the couple (Klinetob & Smith 1996, Babcock *et al.* 1973), and also informs adjustment, support and emotional well-being in marriage (Pasch & Bradbury 1998, Murphy & Mendelson 1973). This study offers the first empirical inquiry into the impact of consanguinity on intra-marriage dynamics as it operates through communication between spouses. This is relevant to gain understanding if and how family relation between couples influences partner exchanges and in turn, marital quality and satisfaction.

Data and Methodology

Data

The data for this study comes from two rounds of SYPE conducted in 2009 and 2014 to generate data on a wide range of topics related to youth such as education, health, family formation, migration, employment among others. The surveys are fielded by the Population Council, in partnership with CAPMAS. The initial sampling in 2009 consisted of 11,372 households with 20,200 young individuals in the eligible age groups of 10-29. A random selection of respondents was used to select a pool of 16,061 young people for interviews. The first round of face-to-face interviews in 2009 collected data from 15,029 young people, aged 10-29, of which 10,916 (72.6%), aged 13-35, were re-interviewed in 2014. This is a nationally representative sample that covers all governorates in Egypt, including the five Frontier governorates and informal urban areas or slums.

We use a subset of data from the sample that includes information about currently married respondents. For the year 2009, we restrict our sample set to married respondents aged 22-29 with spouse living in the household. This restricts the sample size in 2009 to 3,102 unique individuals and 2,510 unique households. For the year 2014, married respondents yield a sample set of 4,333 unique individuals. We also pool the two waves to obtain a balanced panel data with a sample size of 4,138 individuals. The data for our independent variable, consanguinity, comes from individual responses to a question in the survey that asked the respondents if they were related to their spouses prior to marriage. We define this as an indicator variable that takes a value of 1 if the response is "yes" and 0 for "no". The percentage of married respondents that answered affirmative to being related to their spouses is approximately 34% for 2009 and 29% for 2014.

The dependent variables regarding spousal communication are drawn from the following question: How often do you discuss this with your spouse- a) your plans for the future, b) problems in work/school, c) problems in daily life, and d) your marital sexual relations. The 2014 survey also asked about communication about children's future, but we omit those responses in order to obtain results that are comparable to 2009. The survey records three possible answers for the above question: almost never, often, daily which are assigned values on a scale of 1-3 with higher values corresponding to higher frequency of communication.

Methodology

To estimate the impact of consanguinity on spousal communication, we estimate an ordered Probit regression with the different measures of frequency of spousal communication as our dependent variable. An ordered Probit model is used due to the ordinal nature of the dependent variable. In our model, we also control for individual and marriage related characteristics. The individual control variables are: age, gender, indicator variables for respondent being the head of the household, urban/rural residence and employment status, education level measured by level of education institution attended and socio-economic status as measured by household wealth index. We also control for governorate of residence to account for any other systematic differences in demographics among respondents not accounted by individual characteristics. Additionally, we also control for years of marriage and include dummies for whether the decision to marry was made by respondent and if the respondent and his/her spouse lived with family after marriage as a newly married couple.

The equation of interest is of the following form:

$$HC_{ijt} = \beta_0 + \beta_1 Consang_{ijt} + \beta_2 X_{ijt} + \beta_3 HH_{ijt} + u_{ijt}$$

Where HC refers to household communication and is a variable measured through a variety of ways (listed above).

$Consang$ is a dummy variable that is 1 if the married couple are related

X is a vector of individual characteristics of the respondent

HH is a vector of characteristics of the household

i stands for individual, j for household, and t for time

We first estimate the above equation using ordered Probit regression for 2009 and 2014 responses separately. Then, we combine the two waves to obtain a balanced panel dataset using the longitudinal aspect of the data to estimate a panel data ordered Probit. We are not concerned about reverse causality in this model because communication with spouse post-marriage is not expected to be associated with pre-marriage decision about marrying within family. However, there is still a potential of endogeneity due to unobservable factors that are related to consanguineous marriages and forms of communications within those marriages. As discussed in the literature section above, kin marriages are believed to contribute to better compatibility between couples and afford women better treatment and authority in the married household. Communication skills could be jointly determined with consanguineous marriages. Poor in person social skills simultaneously drive the likelihood of marrying a relative and communication dynamics in the household. Unobservable dynamics of the tribal family (the patriarchy) to which both spouses belong could influence getting into a consanguineous marriage and also communication skills. Preliminary instrumental variable regressions, not shown here, seem to confirm the current results.

Results

Table 1. presents the descriptive statistics of the variables in our model for each wave of the survey and the pooled dataset. The data focuses on the youth in Egypt and hence the age is restricted to between 15 and 34. Female respondents comprise a majority of data accounting for about 75% of pooled data. Limiting the original samples to those married and the above age range, yields a sample set with majority female respondents. The head of the household has a higher mean for sample year 2014. As compared to 2009, the 2014 sample has a lower mean for preparatory education but higher mean for no education. There is not much difference between means for the employment variable among the sample sets. However, the mean of the employment variable is much higher when restricted to male respondents. There is also noticeable decrease in the average value of second wealth quintile from 0.24 in 2009 to 0.21in 2014. Conversely, the mean value of the lowest and the highest wealth quintile is higher for 2014 than 2009. Egypt has experienced tumultuous political events between 2009 and 2014 following the Arab Spring, waves of unrest, which could explain some of the changes in the distribution of wealth.

Table 2 presents the descriptive statistics of the sample by the consanguinity of marriage. There is not much difference between the respondents with related and non-related spouses up to vocational level of education. For secondary education, only 2.5% of respondents in consanguineous marriage report having attended secondary school as compared to 5% of respondents in non-consanguineous marriages. Similarly, on average, only 6% of respondent with related spouses report having attended a university as compared to 12% of respondents in non-consanguineous marriages. The percentage of respondents employed are lower among respondents with related spouses but only for 2009. The data also supports the previous literature that finds that consanguineous marriages are associated with low socio-economic status. For instance, 17% of respondents with non-related spouses were in the highest wealth quintile in 2009 as compared to 10% of respondents with related spouses. There is also a higher percentage of respondents with related spouses in lowest wealth quintile than respondents with non-related spouses in all three sample sets. These statistics also show that a higher percentage of respondents with consanguineous marriages lived with family post-marriage as compared to respondents in non-consanguineous marriage.

Figures 1, 2 and 3 show the distribution of percent value of dependent variables across different measures of communications by consanguinity for all three samples. The graphs suggest that 'often' is the most common response to all questions about communication in each sample set. They also show an approximately similar distribution both for respondents with related and unrelated spouses with few marginal differences.

Tables 3, 4 and 5 show the results of an ordered Probit regression for 2009, 2014 and panel data, respectively, with four variables that measure communication regarding following topics: plans for the future, problems in work/school, problems in daily life and sexual relations, as dependent variables. The primary variable of interest is related which is defined as a dummy variable. The coefficient on related is not statistically significant across all different dependent variables, different years, and estimations. Thus, the results suggest that being related to one's spouse does not impact communication with one's spouse. This result is hardly surprising as discussed earlier, being in a consanguineous marriage could influence household dynamics in a negative or positive manner.

However, the coefficient values of other variables provide interesting insights into the factors that impact communication. Table 3. shows the results of an ordered Probit regression for 2009 data. The results suggest that marriage decision made by respondent is positively associated with more frequent communication about plans for future, daily life and sexual relations. Living with family after marriage has a negative impact on communication about plans for future. The respondent's role as the head of the household is also negatively related to communication with spouses on all topics except problems at work/school. Employment status only affects communication about problems in work/school and daily life. Frequency of communication about plans for future is positively associated with preparatory, vocational and university education. All levels of education, except primary, positively affect communication about daily life. Respondents with vocational and secondary education are more likely to talk about sexual relations whereas communication about problems at work/school is only associated with university education. Urban residence is found to be positively related to communication about daily life and problems at work/school. There is no impact of wealth of household on communication between spouses for 2009 sample set.

Table 4 summarizes the results for 2014 sample which are quite similar to 2009. Respondents who make their own decision to marry communicate more frequently with their spouses about future plans, problems in work/school and sexual relations. Years of marriage is negatively related to communication on all topics except daily life. Male respondents communicate more frequently with their spouses, but frequency of communication is negatively associated with respondent's identification as the head of the household. Those with preparatory, secondary and university level of education communicate more frequently with their spouses. For 2014, urban residence is only associated with communication about problems. Unlike results for 2009 responses, spousal communication is positively related to, middle, fourth and highest values of household wealth quintile.

A summary of results for panel data in table 5. suggest that marriage decision by respondent and higher levels of education are positively related to communication between spouses. Consistent with results from 2014, respondents married for more years and living with family after marriage record lower frequency of communication with their spouse about plans for future and problems at work/school, respectively. The heads of the household are less likely to communicate

with their spouses. Employment status is only associated with communication about plans for future and problems at work/school. Preparatory, secondary and university level of education is also positively associated with communication about all topics. The panel dataset also reaffirms a positive relation between middle and highest wealth index quintile and communication.

Conclusion

This paper uses survey responses of young married couples in Egypt to study the relationship between consanguinity and inter-spousal communication. We examine this relationship using two waves of survey in 2009 and 2014. We estimate an ordered Probit regression with consanguinity as an independent variable and frequency of spousal communication as dependent variable. Results suggest that being related to one's spouse is not associated with inter-spousal communication. However, years of marriage, marriage decision by respondent, higher education, role as head of household and in some cases, household wealth index are significantly related to communication between spouses.

Table 1: Descriptive Statistics

Variable	Description	Year	Obs.	Mean	Std. Dev.	Min	Max
Age	Respondent's age	2009	2,069	25.84	2.22	22	29
		2014	2,069	30.85	2.22	27	34
		Pooled	4,138	28.35	3.34	22	34
Male	= 1 if respondent is male	2009	2,069	0.25	0.43	0	1
		2014	2,069	0.25	0.43	0	1
		Pooled	4,138	0.25	0.43	0	1
Head of Household	=1 if respondent is head of household	2009	2,069	0.21	0.41	0	1
		2014	2,069	0.23	0.42	0	1
		Pooled	4,138	0.22	0.41	0	1
Primary	= 1 if highest education institution attended is primary	2009	2,069	0.13	0.34	0	1
		2014	2,069	0.12	0.32	0	1
		Pooled	4,138	0.12	0.33	0	1
Preparatory	= 1 if highest education institution attended is preparatory	2009	2,069	0.13	0.33	0	1
		2014	2,069	0.09	0.29	0	1
		Pooled	4,138	0.11	0.31	0	1
Vocational	= 1 if highest education institution attended is vocational	2009	2,069	0.41	0.49	0	1
		2014	2,069	0.40	0.49	0	1
		Pooled	4,138	0.41	0.49	0	1
Secondary	= 1 if highest education institution attended is secondary	2009	2,069	0.05	0.22	0	1
		2014	2,069	0.04	0.20	0	1
		Pooled	4,138	0.04	0.21	0	1
University	= 1 if highest education institution attended is university	2009	2,069	0.10	0.30	0	1
		2014	2,069	0.10	0.30	0	1
		Pooled	4,138	0.10	0.30	0	1
No education	= 1 if no education institution attended	2009	2,069	0.18	0.38	0	1
		2014	2,069	0.25	0.43	0	1
		Pooled	4,138	0.21	0.41	0	1
Employed	=1 if the respondent was employed during the past 7 days	2009	2,069	0.29	0.45	0	1
		2014	2,069	0.31	0.46	0	1
		Pooled	4,138	0.30	0.46	0	1
Urban	= 1 if residence is urban	2009	2,069	0.24	0.43	0	1
		2014	2,069	0.24	0.43	0	1
		Pooled	4,138	0.24	0.43	0	1
Wealth1	= 1 if wealth quintile is lowest	2009	2,069	0.19	0.39	0	1
		2014	2,069	0.21	0.41	0	1
		Pooled	4,138	0.20	0.40	0	1
Wealth2	= 1 if wealth quintile is second	2009	2,069	0.24	0.43	0	1
		2014	2,069	0.21	0.41	0	1
		Pooled	4,138	0.22	0.42	0	1
Wealth3	= 1 if wealth quintile is middle	2009	2,069	0.21	0.41	0	1
		2014	2,069	0.21	0.41	0	1
		Pooled	4,138	0.21	0.41	0	1
Wealth4	= 1 if wealth quintile is fourth	2009	2,069	0.21	0.40	0	1
		2014	2,069	0.19	0.39	0	1
		Pooled	4,138	0.20	0.40	0	1
Wealth5	= 1 if wealth quintile is highest	2009	2,069	0.14	0.35	0	1
		2014	2,069	0.17	0.38	0	1
		Pooled	4,138	0.16	0.37	0	1
Marriage Decision	= 1 if decision to marry was made by respondent	2009	2,069	0.67	0.47	0	1
		2014	2,069	0.27	0.45	0	1

		Pooled	4,138	0.47	0.50	0	1
Years Married	No. of years spent with only/last husband	2009	2,069	5.55	3.28	0	17
		2014	2,069	9.84	3.82	0	24
		Pooled	4,131	7.70	4.15	0	24
Lived with Family	= 1 if respondent lived with family after marriage	2009	2,069	0.33	0.47	0	1
		2014	2,069	0.34	0.47	0	1
		Pooled	4,138	0.34	0.47	0	1

Table 2. Descriptive Statistics by Consanguinity (%)

Variable	Categories	2009		2014		Pooled	
		Related	Not Related	Related	Not Related	Related	Not Related
Gender	Male	25	26	26	25	25	25
Head of Household	Yes	21	21	23	22	22	22
Education Level	Primary	13	13	12	12	13	12
	Preparatory	14	12	9	9	12	11
	Vocational	41	41	41	40	41	41
	Secondary	3	6	2	5	3	5
	University	7	12	6	12	6	12
	No Education	22	15	29	23	26	19
Employment	Employed	26	31	31	31	29	31
Residence	Urban	22	26	23	25	22	25
Wealth Quintile	Lowest	24	16	28	19	26	18
	Second	25	23	22	21	23	22
	Middle	22	22	20	21	21	21
	Fourth	18	22	18	20	18	21
	Highest	10	17	12	20	11	18
Lived with family after marriage	Yes	40	30	48	29	44	30
Marriage decision by respondent	Yes	63	68	22	30	44	48

Fig 1. Distribution of Dependent Variables (%) for 2009
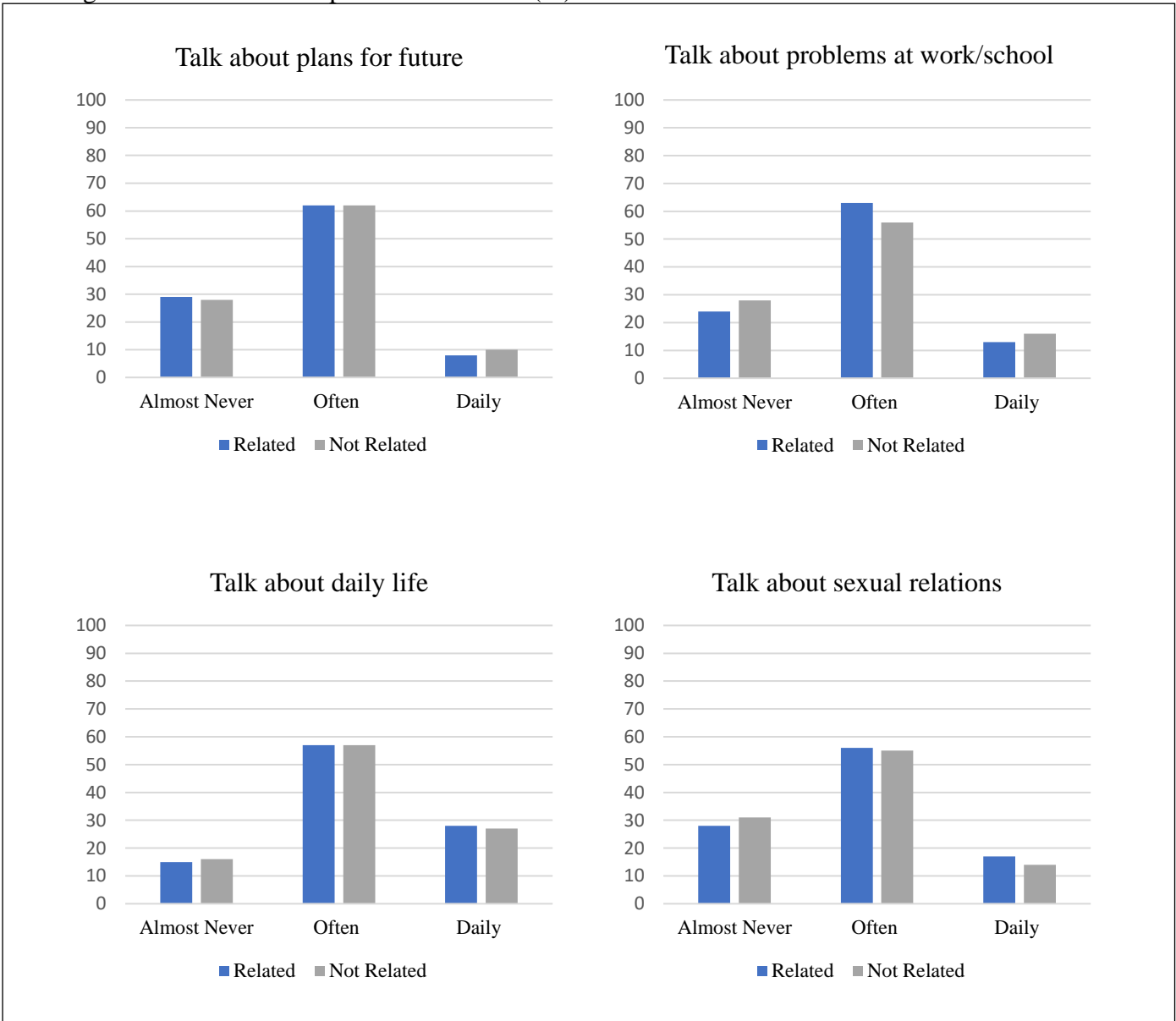
Fig 2. Distribution of Dependent Variables (%) for 2014

Talk about plans for future

Talk about problems at work/school

Talk about daily life
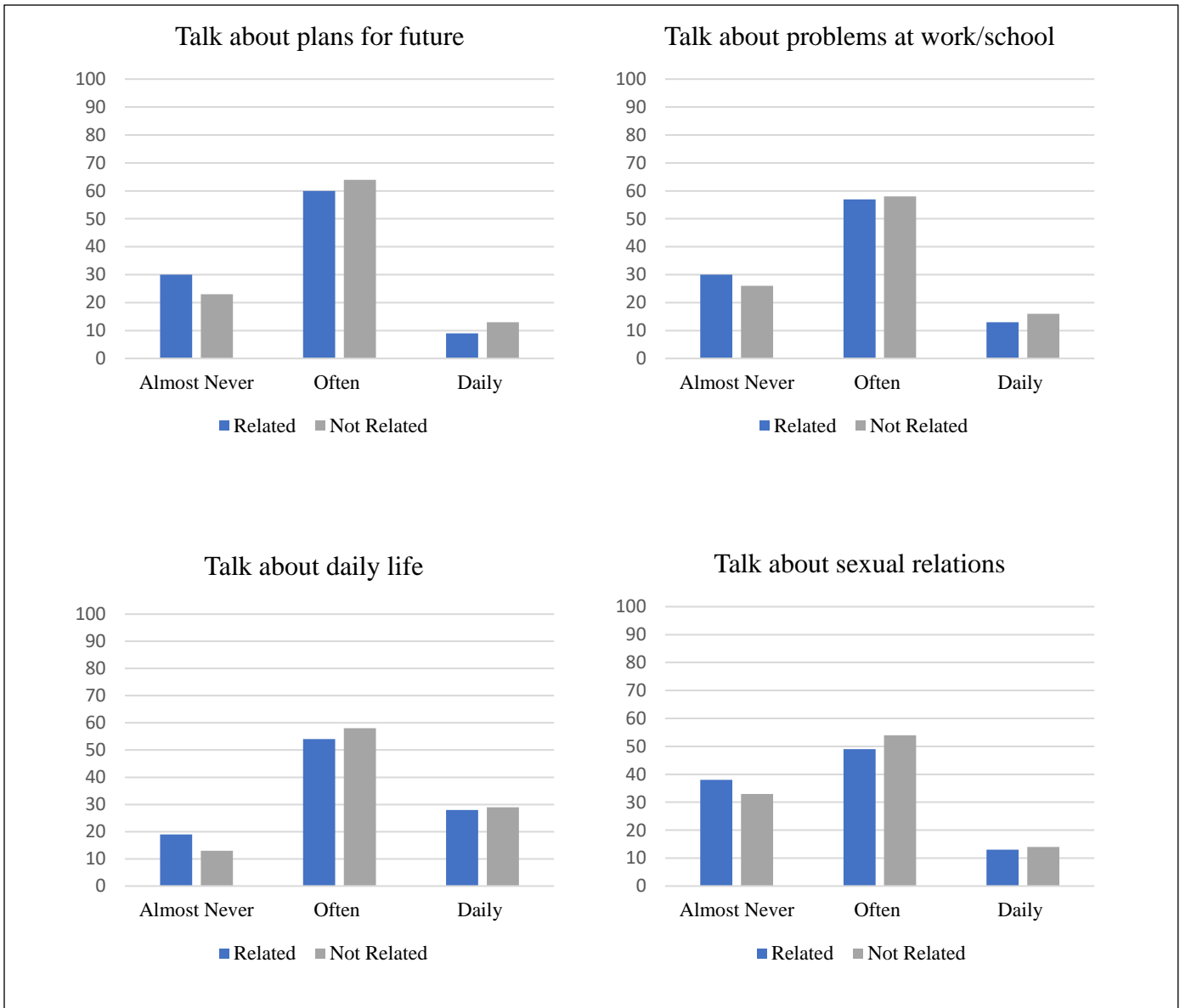
Talk about sexual relations

Fig 3. Distribution of Dependent Variables (%) for Pooled Data
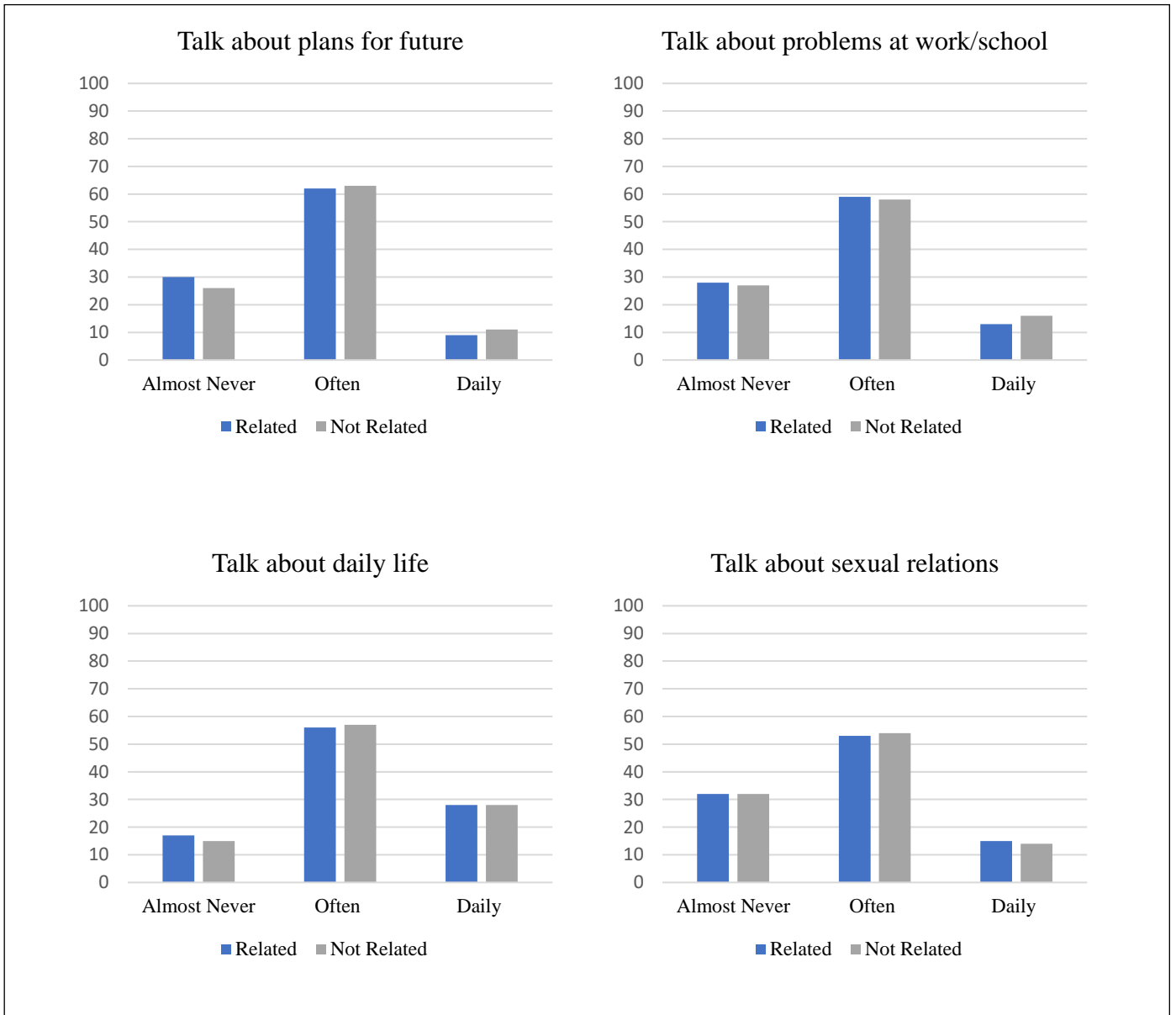
Table 3. Ordered Probit Estimates for 2009

	Plans for Future	Problems	Daily Life	Sexual Relations
Related	-0.056	0.057	0.026	0.024
	(0.060)	(0.074)	(0.055)	(0.057)
Marriage Decision	0.214***	-0.065	0.163***	0.326***
	(0.066)	(0.086)	(0.059)	(0.061)
Years Married	-0.015	0.026*	0.007	0.001
	(0.012)	(0.015)	(0.010)	(0.011)
Lived with Family	-0.196***	-0.070	-0.009	-0.015
	(0.064)	(0.084)	(0.057)	(0.060)
Age	-0.002	-0.021	-0.001	-0.020
	(0.015)	(0.019)	(0.014)	(0.014)
Male	0.264*	0.197	0.120	0.091
	(0.153)	(0.185)	(0.149)	(0.144)
Head of Household	-0.371***	-0.228	-0.355***	-0.259**
	(0.127)	(0.145)	(0.122)	(0.123)
Employed	0.144	0.343***	0.254***	0.110
	(0.104)	(0.125)	(0.098)	(0.092)
Primary	0.149	0.113	0.065	-0.005
	(0.099)	(0.130)	(0.096)	(0.096)
Preparatory	0.326***	0.182	0.335***	0.150
	(0.107)	(0.133)	(0.098)	(0.095)
Vocational	0.300***	0.091	0.196**	0.182**
	(0.086)	(0.112)	(0.080)	(0.081)
Secondary	0.190	0.135	0.328**	0.317**
	(0.158)	(0.193)	(0.136)	(0.150)
University	0.440***	0.391**	0.308**	0.186
	(0.127)	(0.156)	(0.120)	(0.119)
Urban	-0.003	0.229**	0.149*	0.065
	(0.097)	(0.115)	(0.083)	(0.080)
Wealth2	0.030	-0.054	-0.061	-0.092
	(0.087)	(0.111)	(0.080)	(0.080)
Wealth3	-0.005	0.049	0.083	0.000
	(0.091)	(0.119)	(0.084)	(0.086)
Wealth4	0.148	-0.040	0.042	-0.041
	(0.104)	(0.128)	(0.094)	(0.091)
Wealth5	-0.062	0.121	0.033	-0.036
	(0.125)	(0.156)	(0.113)	(0.115)
Governorate Dummies	Yes	Yes	Yes	Yes
Observations	2,034	1,243	2,162	2,143

Note: Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table 4. Ordered Probit Estimates for 2014

	Plans for Future	Problems	Daily Life	Sexual Relations
Related	-0.035	0.007	0.043	-0.011
	(0.069)	(0.067)	(0.066)	(0.066)
Marriage Decision	0.256***	0.182***	-0.018	0.161**
	(0.066)	(0.065)	(0.063)	(0.064)
Years Married	-0.022***	-0.019**	-0.003	-0.020**
	(0.008)	(0.008)	(0.008)	(0.008)
Lived with Family	-0.066	-0.109*	-0.076	-0.034
	(0.065)	(0.064)	(0.062)	(0.063)
Age	0.021	0.017	0.003	-0.002
	(0.013)	(0.013)	(0.013)	(0.013)
Male	0.247*	0.000	0.417***	0.382***
	(0.132)	(0.130)	(0.135)	(0.139)
Head of Household	-0.390***	-0.355***	-0.440***	-0.344***
	(0.106)	(0.107)	(0.113)	(0.115)
Employed	0.167*	0.339***	0.006	-0.133
	(0.090)	(0.090)	(0.089)	(0.087)
Primary	0.068	0.094	0.347***	0.056
	(0.098)	(0.092)	(0.088)	(0.092)
Preparatory	0.164	0.227**	0.238**	0.192*
	(0.107)	(0.106)	(0.100)	(0.104)
Vocational	0.133	-0.044	-0.152	-0.075
	(0.227)	(0.244)	(0.260)	(0.214)
Secondary	0.223***	0.191***	0.297***	0.272***
	(0.070)	(0.068)	(0.069)	(0.070)
University	0.452***	0.357***	0.488***	0.401***
	(0.120)	(0.116)	(0.120)	(0.119)
Urban	0.056	0.115	0.181**	0.028
	(0.080)	(0.079)	(0.082)	(0.086)
Wealth2	0.096	0.005	0.133	0.055
	(0.090)	(0.087)	(0.083)	(0.084)
Wealth3	0.302***	0.189**	0.186**	0.247***
	(0.092)	(0.085)	(0.085)	(0.088)
Wealth4	0.195**	0.151*	0.151*	0.132
	(0.093)	(0.090)	(0.085)	(0.090)
Wealth5	0.202*	0.165*	0.324***	0.129
	(0.105)	(0.099)	(0.098)	(0.103)
Governorates Dummies	Yes	Yes	Yes	Yes
Observations	2,172	2,172	2,172	2,172

Note: Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table 5. Longitudinal Ordered Probit Estimates

	Plans for Future	Problems	Daily Life	Sexual Relations
Related	-0.059	0.027	0.032	-0.004
	(0.044)	(0.050)	(0.042)	(0.042)
Marriage Decision	0.181***	0.099**	0.075*	0.201***
	(0.044)	(0.049)	(0.040)	(0.041)
Years Married	-0.017***	-0.008	0.000	-0.014**
	(0.007)	(0.007)	(0.006)	(0.006)
Lived with Family	-0.113**	-0.094*	-0.024	-0.031
	(0.044)	(0.049)	(0.042)	(0.042)
Age	0.030***	0.010	0.005	-0.007
	(0.008)	(0.009)	(0.008)	(0.008)
Male	0.225**	0.055	0.283***	0.263***
	(0.096)	(0.100)	(0.099)	(0.096)
Head of Household	-0.315***	-0.273***	-0.383***	-0.297***
	(0.081)	(0.081)	(0.084)	(0.081)
Employed	0.138**	0.300***	0.093	-0.045
	(0.063)	(0.069)	(0.064)	(0.061)
Primary	0.049	0.074	0.186***	0.004
	(0.066)	(0.071)	(0.064)	(0.064)
Preparatory	0.195***	0.181**	0.282***	0.149**
	(0.071)	(0.077)	(0.065)	(0.067)
Vocational	0.118*	-0.004	0.175***	0.154***
	(0.062)	(0.072)	(0.058)	(0.058)
Secondary	0.255***	0.181***	0.274***	0.232***
	(0.058)	(0.059)	(0.055)	(0.056)
University	0.338***	0.311***	0.359***	0.238***
	(0.082)	(0.089)	(0.079)	(0.077)
Urban	0.002	0.130**	0.146**	0.032
	(0.060)	(0.062)	(0.057)	(0.055)
Wealth2	0.085	0.003	0.048	0.020
	(0.061)	(0.067)	(0.056)	(0.057)
Wealth3	0.204***	0.162**	0.173***	0.170***
	(0.063)	(0.068)	(0.058)	(0.060)
Wealth4	0.238***	0.105	0.133**	0.085
	(0.067)	(0.071)	(0.061)	(0.063)
Wealth5	0.195**	0.170**	0.243***	0.136*
	(0.076)	(0.080)	(0.069)	(0.074)
Governorate Dummies	Yes	Yes	Yes	Yes
Observations	4,206	3,415	4,334	4,315
Number of individual ids	2,173	2,173	2,174	2,174

Note: Robust standard errors in parentheses *** $p<0.01$, ** $p<0.05$, * $p<0.1$

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