Religiosity as a Factor in Young Women's Knowledge and Motivation to Avoid Early Pregnancy

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Abstract

Religion is thought to be an important protector against unplanned, nonmarital pregnancy among young adults. We use data from the Relationship Dynamics and Social Life (RDSL) study to investigate how different dimensions of religiosity of young, unmarried women (ages 18 -19) may influence their knowledge regarding pregnancy risk and their pregnancy motivations. Preliminary results suggest that religiosity can offer both risks and protections against pregnancy, depending on the dimension of religiosity. Specifically, we find that young women who believe the Bible is the literal word of God know less about pregnancy risk, are more consistent and less ambivalent in their pregnancy motivations, and are more motivated to avoid pregnancy than their counterparts. Measures of personal religiosity—importance of religion and frequency of prayer—are also associated with less ambivalence about pregnancy motivations. But, the motivations of young women who attend religious services more frequently are less consistent and more ambivalent.

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In the United States, a full 67 percent of pregnancies among women who are 18-24 years old are unintended (Finer and Zolna 2013), and unintended births are associated with adverse health and well-being for mothers and children (Logan et al. 2007). Hence, the prevention of unplanned pregnancies remains an important public health goal. Religion is often thought to be a protective social institution when it comes to unintended (especially nonmarital) births, but evidence of its protective role is mixed. Studies show that youth who are religiously involved tend to initiate sexual behaviors later, but they are less likely to use contraception effectively (Bearman and Bruckner 2001; Burdette and Hill 2009; Burdette et al. 2014). Also, contrary to what would be expected based on conservative Protestant teachings, Pearce (2010) finds that conservative Protestant women are at *higher* risk for a nonmarital birth than women with other religious affiliations. This suggests the importance of understanding the underlying mechanisms through which different dimensions of religion (e.g., religious service attendance or type of religious affiliation) relate to unintended pregnancy.

Two key distal determinants of fertility thought to work through contraceptive behaviors are knowledge regarding pregnancy risk and the motivation to avoid pregnancy. Research on the correlates of knowledge and attitudes about pregnancy often includes a measure of religious service attendance and rarely find statistically significant results (Guzzo and Hayford 2012; Hayford and Guzzo 2013). However, religion is a multidimensional social institution, so a full investigation of religion's relationship to

knowledge and motivation to prevent pregnancy should consider a range of religious variables.

In this paper, we examine relationships between four dimensions of religiosity and knowledge regarding pregnancy risk as well as motivation to avoid pregnancy. Using data from the Relationship Dynamics and Social Life (RDSL) study, we show evidence that 18 to 19 year old women in the United States who view the Bible as the literal word of God know less about reproductive behaviors and contraception than their counterparts, but are highly motivated to avoid pregnancy. Also, higher levels of religious service attendance are not related to different levels of knowledge, but they do create more ambivalence around how bad it would be to get pregnant at the time of the survey. Personal religiosity (a combination of the importance of religion and frequency of prayer) was related to lower levels of ambivalence about whether pregnancy now would be a good or bad thing. Religious affiliation showed no relationship to either knowledge or motivation. These results suggest there are both risks and protections against pregnancy depending on which features of religiosity are examined.

Theoretical Framework

Religion is a multidimensional social and cultural institution with at least three different yet related core dimensions—content (ideological tenets), centrality (a personal importance associated with religion), and conduct (practices) (Pearce and Denton 2011). All three of these dimensions of religiosity produce and reinforce what Johnson-Hanks et al. 2011 call schema, or mental maps, for how the world operates and preferable lines of action. We argue that the knowledge and motivation necessary to prevent pregnancy are

schema that, in association with the resources of everyday life, shape behavior in primarily undetectable ways. Key forms of knowledge that relate to the risk someone will unintentionally become pregnant include knowledge about fecundity and effective contraceptive behavior. We refer to this kind of knowledge as "knowledge regarding pregnancy risk". The motivation to not become pregnant combined with the motivation to become pregnant can create prenatal, anti-natal, or ambivalent overall motivation (Miller, Barber, Gatny 2013). Both knowledge and motivation are likely related to different dimensions of religiosity in conflicting ways.

Religious content, or the beliefs and ideas conveyed by and within religious institutions are the first dimension of religiosity we explore. An often studied ideology of religions or religious groups is the degree to which they believe their religious texts are divine in nature and to be interpreted literally (e.g., Zigrell 2012). In the United States, conservative Protestants (many of whom are Biblical literalists) believe that the Bible teaches nonmarital sex is a sin and should be avoided at all costs (Regnerus 2007). Following this line of thinking, Biblical literalists also tend to strongly promote abstinence-only education, and discounting the need for any reproductive or contraceptive education or preparation (Irvine 2004). For these reasons, we expect that those who believe the Bible is the word of God and/or are associated with a conservative Protestant denomination (e.g., Southern Baptist or Pentecostal) will be less knowledgeable about pregnancy risk. On the other hand, because premarital pregnancy is a very public acknowledgement that one has had premarital sex, we predict that among Biblical literalists and conservative Protestants there will be strong motivation to avoid becoming pregnant before marriage and very little ambivalence.

The other two dimensions of religiosity we discuss (centrality and conduct), together comprise the concept of "religiousness," or the degree to which one is religiously active or engaged. This can be in public or private ways or expressed through the importance one places on religion in his/her life. Because almost all religious groups (regardless of their views on the Bible) do believe premarital sexual behavior is wrong, it is likely that general religiousness will be associated with a desire to avoid sexual behavior and therefore, perhaps, less exposure to or interest in the facts about sexual behavior, fecundity, or effective contraceptive use. There may also be strong motivation to avoid pregnancy (through abstinence or other means) given that pregnancy would be an obvious sign of disobeying religious teachings.

We also consider religious service attendance, a public form of religious conduct to have unique social properties that centrality or private religious practices do not. Religious institutions are very pro-family organizations with strong messages about the importance of getting married and having children and clear disapproval of abortion. Also, families within religious organizations often have small children, and religious institutions regularly organize activities for families, promoting the joys and value of parenting, and generally exuding hyper-natalism—a strong value on childbearing. Therefore, although religious service attenders clearly get the message that childbearing is preferred within marriage, they may also get the message that having a baby instead of getting an abortion and becoming a mother (even if not married) are laudable actions in the context of unintended pregnancy. This may lead to some ambivalence among frequent attenders in the motivation to avoid pregnancy and create ambivalence about whether a pregnancy right now would be the worst thing or not so bad.

Data

Our analyses employ data from the Relationship Dynamics and Social Life (RDSL) study, conducted among a sample of 1,003 young women between the ages of 18 and 19 (at baseline) from a county in Michigan. Young women were sampled using the Michigan Department of State driver's license and Personal Identification Card (PID) data. Although the age and geographic restrictions limit the generalizability of the sample, the county chosen for this study closely mimics the demographic and income distributions of the State of Michigan, placing the population near the median for the United States. This sampling frame has high coverage of this age group, with 96% agreement between the frame count and Census-based population projections. The frame was updated every six months, and replicate samples were drawn quarterly, with recruitment taking place between March 2008 and March 2009. Eligible women were initially contacted via mail, with a letter that informed them of the upcoming baseline interview and included a $5 incentive to participate. Following the baseline interview, the women were each invited to participate in the weekly journal portion of the study.

We use data from the 60 minute face-to-face baseline interviews. These individual interviews gathered information on family background; education and career plans; attitudes, values, beliefs, and knowledge regarding pregnancy risk; romantic relationships; and sexual experiences. A total of 1,418 women were sampled from the database; of these women 218 were found to be ineligible. The baseline interview yielded a response rate of 83.6% (AAPOR 2011), for a sample of 1,003. We restrict our analytic sample to respondents who had never been married and who had responses on each

independent, dependent, and control measure. This leaves us with a sample of 971 young women.

Measures

Dependent. We investigate the influences of young women's religiosity on two pregnancy-related outcomes: knowledge regarding pregnancy risk, and pregnancy motivations. The knowledge measure is coded as the sum of true or false statements, out of a total of six statements, that respondents answered correctly. These statements included the following:

- Most women's periods are regular, that is, they ovulate or are fertile fourteen days after their periods begin.
- When putting on a condom, it is important to have it fit tightly, leaving no space at the tip.
- The most likely time for a woman to get pregnant is right before her period starts.
- Even if the man pulls out before he ejaculates, even if ejaculation occurs outside of the woman's body, it is still possible for the woman to become pregnant.
- In general, a woman is most likely to get pregnant if she has sex during her period, as compared with other times of the month.
- When a woman misses more than two days of birth control pills, she should use another birth control method.

The knowledge variable, then, ranges on a scale from 0 (if the respondent answered none of the above true or false statements correctly) to 6 (if the respondent answered each of the statements correctly).

We code a series of measures to indicate pregnancy motivations using the responses to two survey items. The first survey item is an indicator of "negative" pregnancy motivations, and reads "Getting pregnant at this time in your life is one of the worst things that could happen to you." The second is an indicator of "positive" pregnancy motivations, and reads "It wouldn't be all that bad if you got pregnant at this time in your life." The two items appear in the survey with 21 items—focused on attitudes about sex, contraceptive use, single parenthood, pregnancy, cohabitation, marriage, and work—between them. Response options for each of these items are strongly agree, agree, disagree, and strongly disagree, with the option of "neither agree nor disagree" if the respondent insisted. We have coded these items on a scale from 1 to 5, with 1 indicates strong disagreement, 2 indicating disagreement, 3 indicating neither agreement nor disagreement, 4 indicating agreement, and 5 indicating strong agreement.

We then created four measures to indicate different types of pregnancy motivations. We borrow these coding schemes from Miller, Barber, and Gatny (2012), who created similar measures in their investigation of how pregnancy desires predict risk of pregnancy. First, we coded a measure of the *signed difference* of the two pregnancy motivation measures, in which we subtracted the negative pregnancy motivation from the positive pregnancy motivation. The resultant measure is indicative of how highly valued respondents' positive motivation to become pregnant is over their negative motivation to become pregnant. In other words, a more positive value on this measure indicates that respondents' positive motivation to become pregnant outweighs their negative motivation to become pregnant. Second, we created a measure that is the *absolute value of the difference* between respondents' positive and negative pregnancy motivations. This

measure is indicative of the degree of conflict between the two opposing motivations, with a higher value indicating a greater amount of consistency between respondents' positive motivation to become pregnant and negative motivation to become pregnant. Third, we create a measure that is a continuous variable and reflects respondents' ambivalence in their pregnancy motivations. We created this measure by multiplying the positive and negative motivation measures. A high value on this *ambivalent continuous* measure indicates that the respondent reported more positive pregnancy motivations, but also more negative pregnancy motivations. Thus, we call these girls more "ambivalent". Fourth, we code a measure to indicate *antinatal continuous* pregnancy motivations. This measure was created by reverse coding the positive motivation measure so that a high code now indicates greater disagreement with the statement "It wouldn't be all that bad if you got pregnant at this time in your life". We then multiplied this measure with the negative pregnancy motivation measure. A higher code on the resultant measure, then, reflects a lower motivation to get pregnant.

Independent. We code three measures to indicate respondents' religiosity. As an indicator of the dimension of religious content we use a measure of Biblical literalism. This measure is a dummy variable coded 1 if respondents strongly agreed with the statement "The Bible is God's word and everything happened or will happen pretty much as it says" and 0 if they responded otherwise.

The next religiosity indicators reflect the dimensions of religious centrality and private religious conduct: the importance that the respondent places on religion and the frequency with which they pray. The variable indicating frequency of prayer comes from a survey item asking "About how often do you pray alone, if ever? Would you say you

usually pray several times a day, about once a day, several times a week, about once a week, less than once a week, or never?" The variable indicating religious importance comes from a survey item that reads "How important if at all is your religious faith to you - would you say not important, somewhat important, very important, or more important than anything else?" These two variables were coded so that a high value indicated a greater frequency of prayer and greater importance of religion, respectively. Because the items are highly correlated (rho=0.64 at $p<.0001$), we created a measure that is the average of these two variables.

We also code a measure of frequency of attendance of religious services to reflect the dimension of public religious conduct. The measure comes from a survey item, asking "How often do you usually attend religious services - would you say several times a week, once a week, a few times a month, once a month, less than once a month, or never?" The measure is coded on a scale from 1 to 6, with a higher code indicating a greater frequency of attendance.

In addition to these three measures of the dimension of religiosity, we also account for religious affiliation. We code religious affiliation into 5 dummy variables to indicate respondents' identification as Mainline Protestant, Conservative Protestant, Catholic, other, and no religion. We treat Mainline protestant as the reference category in our analyses.

Controls. We account for sociodemographic characteristics that could also influence our dependent measures or the relationship between religiosity and the dependent measures. First, we control for respondents' age at the time of the baseline interview, with three dummy variables to indicate that the respondent was 18 years old, 19 years old, or 20

years old, with of age 18 years treated as the reference category. We also account for the influence of race, with a dummy measure coded 1 for Black and 0 for other races (95% of the non-Black respondents in our sample are White). Next, we control for respondents' educational attainment, coded into 5 dummy variables to indicate whether they are (1) enrolled in a four year college, (2) not enrolled and did not graduate from high school, (3) not enrolled and did graduate from high school, (4) enrolled in high school, (5) enrolled in two-year college, a vocational, technical, or trade school, or any other type of education. We treat enrollment in a four-year college as the reference category in our analyses. We also account for whether respondents were receiving public assistance at the time of the baseline interview.

Lastly, we control for family background characteristics. We control for a dummy measure indicating whether the respondent's biological mother was under 20 years old when she had her first child. We also account for a measure of respondents' family structure, coded as three dummy variables to indicate whether the respondent grew up in a home with (1) two-parents (either biological or step), (2) single biological parent, or (3) another family structure. Next, we control for respondents' mothers' educational attainment with a dummy variable indicating whether their mother attained less than a high school level of education. Finally, we control for parental income with three dummy variables, indicating that (1) the respondents' parents earn $15,000 or more annually, (2) the respondents' parents earn $14,999 or less annually, or (3) the respondent did not know what their parents' earned or refused to answer the question.

Analysis

We use Ordinary Least Squares (OLS) regression to estimate the association between religiosity and our dependent variables because these dependent measures are interval measures that approximate continuous measures. The resulting coefficients reflect the amount of change in the dependent measure that is associated with a one-unit change in the independent measure. We use two-tailed tests of to determine the significance of the coefficients.

Preliminary Results

Table 1 displays the descriptive statistics for each variable included in our analyses. On average, the young women in our sample correctly answered 3.87 of the six true/false items about contraception and pregnancy risk. The original variables from which we coded the four dependent measures of pregnancy motivations reveal a tendency for these women to agree that getting pregnant now would be one of the worst things that could happen to them (average of 3.92 on a scale from 1 to 5), and to disagree that it wouldn't be all that bad if they got pregnant at this time in their life (average of 2.17 on a scale from 1 to 5). A value of -1.75 on the mean of the signed difference between these two measures indicates that these young women tend to lean more toward a negative motivation to become pregnant than toward a positive motivation to become pregnant. With a mean of 2.38 on the absolute value of the difference between these positive and negative motivation measures, on a possible scale from 0 to 4, these girls tend to hold consistent pregnancy motivations. Similarly, on average, these young women tend to hold relatively low levels of ambivalence about becoming pregnant, with a value of 7.76 on the measure of ambivalent continuous, which can range from 1 to 25. The mean of their

antinatal continuous motivations is much higher, at 19.68, with a range from 2 to 30, indicating a tendency toward antinatal motivations, on average.

About a quarter of the sample of young women strongly agree that the Bible is the literal word of God. The measure indicating frequency of prayer and religious importance averages to a value of 3.28 for this sample, indicating a relatively high amount of importance and relatively frequent prayer. On average, these young women attend religious services about once a month, as reflected in the mean value of 3.10.

Table 2 displays results from OLS regression, treating knowledge regarding pregnancy risk as the dependent measure. In Model 1, the measure of Biblical literalism is revealed to be negatively and significantly associated with young women's knowledge. The other indicators of religiosity are not significantly associated with knowledge, as revealed in Models 2 through 4. However, in Model 4, the association between Biblical literalism and knowledge is revealed to be independent of the other indicators of religiosity. In none of these models do the indicators of affiliation exert a significant influence on knowledge across the models.

Table 3 displays results of the associations between religiosity and the signed difference of the young women's pregnancy motivations. In Model 1, we find that Biblical literalism is negatively associated with this measure of pregnancy motivations. In other words, young women who believe that the Bible is the literal word of God tend to have stronger negative pregnancy motivations than positive pregnancy motivations. In Models 2 through 4, the other indicators of religiosity are not significantly associated with this signed difference measure, and the association with Biblical literalism is not independent of the other measures of religiosity (Model 4). In each model, religious

affiliation is not significantly associated with the signed difference between positive and negative pregnancy motivations.

Table 4 sheds more light on the associations between religiosity and the differences between positive and negative pregnancy motivations. Model 1 reveals that young women who believe that the Bible as the literal word of God tend to have more consistency in their positive and negative motivations to become pregnant (i.e., they tend to have a higher value on the measure of the absolute value of the difference). Although the indicator of prayer and religious importance and the indicator of religious attendance are not significantly associated with this measure of the absolute value in Models 2 and 3, both Biblical literalism and religious attendance are significant in the full model (Model 4). Biblical literalism maintains a positive association, while religious attendance is revealed to be negatively associated with this absolute value measure. In other words, a greater frequency of attendance of religious services is associated with lower consistency in negative and positive motivations to become pregnant. Once again, no significant association is revealed between religious affiliation and this measure of pregnancy motivations.

In Table 5, we investigate the associations between religiosity and ambivalent pregnancy motivations. In Model 1, again, Biblical literalism is significantly associated with the outcome measure. The association is negative, indicating that young women who believe that the Bible as the literal word of God tend to have less ambivalent motivations to become pregnant. Additionally, in Model 2 of Table 5, we find a negative association between the measure of prayer and religious importance and ambivalent pregnancy motivations. In Model 3, frequency of attendance is not significantly associated with

ambivalent motivations, but all three measures of religiosity are significantly associated with ambivalent motivations in the full model (i.e., independent of each other measure of religiosity). Biblical literalism and the measure of prayer and importance both maintain negative associations, while frequency of attendance is revealed to be positively associated with ambivalent motivations to become pregnant. This finding complements the finding in Table 4: Taken together, results from the two tables suggest that Biblical literalists are more consistent and less ambivalent; while the reverse is true for more frequent attenders. Religious affiliation is not significantly associated with this measure of ambivalence.

Finally, in Table 6, we treat antinatal pregnancy motivations as the outcome measure. We find that Biblical literalism is positively associated with antinatal pregnancy motivations in both Model 1 and the full model (Model 4). Young women who believe that the Bible as the literal word of God tend toward more antinatal pregnancy motivations. Neither other two measures of religiosity, however, nor the indicators of religious affiliation are significantly associated with this measure of antinatal motivations.

Next Steps

In the coming weeks, in addition to expanding upon the interpretation of our results, we plan to analyze the influence of religiosity on the odds that these young women experience a non-marital pregnancy. To do this, we will employ data from the weekly journal portion of the RDSL. Over 99% of respondents who completed the baseline survey enrolled in the weekly surveys (N=992) (Barber et al., 2012). These weekly

surveys lasted for the next 2.5 years, during which the women were asked to complete the surveys either online or by phone (92% chose online and 8% chose phone). The surveys collected information on whether respondents became pregnant or thought they were pregnant in each week. Specifically, our goal will be to determine (a) whether religiosity influences the risk of pregnancy among this sample of young women and, if so, (b) to what extent contraceptive knowledge and pregnancy motivations explain that relationship.

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Tables

Table 1: Descriptive Statistics for Sample of Never Married Young Women (N=971)

	Mean	SD	Min	Max
Dependent Measures				
Knowledge regarding pregnancy risk (total number correct)	3.87	1.32	0.00	6.00
Pregnant now would be the worst thing	3.92	1.24	1.00	5.00
Pregnant now would not be so bad	2.17	1.08	1.00	5.00
Signed difference between pregnancy motivations	-1.75	2.05	-4.00	4.00
Absolute value of the difference	2.38	1.27	0.00	4.00
Ambivalent continuous	7.76	3.71	1.00	25.00
Antinatal continuous	19.68	8.49	2.00	30.00
Religiosity				
Biblical literalism	0.24	0.43	0.00	1.00
Religious importance and frequency of prayer (average)	3.28	1.20	1.00	5.00
Frequency of attendance	3.10	1.68	1.00	6.00
Religious Affiliation				
Mainline Protestant	0.07	0.26	0.00	1.00
Conservative Protestant	0.50	0.50	0.00	1.00
Catholic	0.17	0.38	0.00	1.00
Other	0.05	0.22	0.00	1.00
No religion	0.21	0.41	0.00	1.00
Sociodemographic Characteristics				
Age				
18 years	0.41	0.49	0.00	1.00
19 years	0.50	0.50	0.00	1.00
20 years	0.09	0.28	0.00	1.00
Race				
Black	0.34	0.47	0.00	1.00
School enrollment and type				
4 year college	0.28	0.45	0.00	1.00
Not enrolled and did not graduate	0.08	0.27	0.00	1.00
Not enrolled and did graduate high school	0.21	0.41	0.00	1.00
High school	0.13	0.34	0.00	1.00
2 year college/vocational/technical/other	0.29	0.46	0.00	1.00
Receiving public assistance	0.26	0.44	0.00	1.00
Family Background				
Biological mother <20 years old at first birth	0.37	0.48	0.00	1.00
Family Structure				
Two parent family	0.53	0.50	0.00	1.00
Single biological parent only	0.39	0.49	0.00	1.00
Other	0.08	0.27	0.00	1.00
Mother's education <high school graduate	0.09	0.28	0.00	1.00
Parental income				
$15,000 or more	0.65	0.48	0.00	1.00
$14,999 or less	0.14	0.35	0.00	1.00
Don't know/refused	0.21	0.41	0.00	1.00

Table 2: OLS Regression of the Association between Religiosity and Knowledge Regarding Pregnancy Risk

	Model 1	Model 2	Model 3	Model 4
Biblical literalism	-0.288**			-0.241*
	(0.102)			(0.108)
Religious importance and frequency of prayer (average)		-0.074		-0.026
		(0.041)		(0.047)
Frequency of attendance			-0.056	-0.031
			(0.029)	(0.032)
Religious Affiliation (reference: Mainline Protestant)				
Conservative Protestant	-0.090	-0.103	-0.092	-0.084
	(0.167)	(0.168)	(0.168)	(0.168)
Catholic	-0.131	-0.123	-0.108	-0.142
	(0.182)	(0.183)	(0.182)	(0.182)
Other	-0.216	-0.202	-0.200	-0.236
	(0.238)	(0.239)	(0.239)	(0.239)
No religion	-0.076	-0.118	-0.102	-0.143
	(0.179)	(0.186)	(0.182)	(0.186)
Sociodemographic Characteristics				
Age (Reference: 18 years)				
19 years	-0.041	-0.047	-0.050	-0.045
	(0.089)	(0.089)	(0.089)	(0.089)
20 years	-0.082	-0.076	-0.086	-0.086
	(0.154)	(0.154)	(0.154)	(0.154)
Race (Reference: non-Black)				
Black	-0.349***	-0.363***	-0.354***	-0.310**
	(0.105)	(0.107)	(0.108)	(0.109)
School enrollment and type (Reference: 4 year college)				
Not enrolled and did not graduate	-0.218	-0.199	-0.229	-0.227
	(0.174)	(0.174)	(0.174)	(0.174)
Not enrolled and did graduate high school	0.079	0.068	0.058	0.063
	(0.120)	(0.121)	(0.121)	(0.121)
High school	-0.279*	-0.297*	-0.296*	-0.289*
	(0.142)	(0.142)	(0.142)	(0.142)
2 year college/vocational/technical/other	0.135	0.129	0.124	0.129
	(0.110)	(0.110)	(0.110)	(0.110)
Receiving public assistance	-0.114	-0.102	-0.106	-0.111
	(0.106)	(0.106)	(0.106)	(0.106)
Biological mother <20 years old at first birth	-0.185*	-0.161	-0.167	-0.181*
	(0.091)	(0.091)	(0.091)	(0.091)
Family Structure (Reference: Two parent family)				
Single biological parent only	-0.119	-0.111	-0.123	-0.130
	(0.095)	(0.095)	(0.095)	(0.095)
Other	-0.098	-0.073	-0.084	-0.097
	(0.160)	(0.161)	(0.161)	(0.161)
Mother's education <high school graduate	-0.372*	-0.387*	-0.395**	-0.374*
	(0.152)	(0.152)	(0.152)	(0.152)
Parental income (Reference: $15,000 or more)				
$14,999 or less	-0.158	-0.181	-0.186	-0.171
	(0.131)	(0.132)	(0.132)	(0.132)
Don't know/refused	-0.336**	-0.337**	-0.348**	-0.338**
	(0.110)	(0.111)	(0.111)	(0.110)
Observations	971	971	971	971

Standard errors in parentheses
Two-tailed tests, *p<.05 **p<.01 ***p<.001

Table 3: OLS Regression of the Association between Religiosity and Signed Difference of Pregnancy Motivations

	Model 1	Model 2	Model 3	Model 4
Biblical literalism	-0.326*			-0.314
	(0.156)			(0.166)
Religious importance and frequency of prayer (average)		-0.058		-0.025
		(0.063)		(0.072)
Frequency of attendance			-0.023	0.008
			(0.044)	(0.050)
Religious Affiliation (reference: Mainline Protestant)				
Conservative Protestant	0.228	0.212	0.215	0.226
	(0.256)	(0.257)	(0.257)	(0.257)
Catholic	-0.211	-0.192	-0.175	-0.217
	(0.278)	(0.279)	(0.279)	(0.279)
Other	0.067	0.093	0.106	0.062
	(0.365)	(0.365)	(0.365)	(0.366)
No religion	-0.256	-0.271	-0.229	-0.275
	(0.274)	(0.284)	(0.280)	(0.286)
Sociodemographic Characteristics				
Age (Reference: 18 years)				
19 years	0.090	0.083	0.083	0.090
	(0.136)	(0.136)	(0.136)	(0.136)
20 years	-0.132	-0.126	-0.131	-0.131
	(0.236)	(0.236)	(0.236)	(0.236)
Race (Reference: non-Black)				
Black	-0.085	-0.118	-0.133	-0.079
	(0.161)	(0.163)	(0.165)	(0.167)
School enrollment and type (Reference: 4 year college)				
Not enrolled and did not graduate	0.871***	0.891***	0.877***	0.877***
	(0.265)	(0.266)	(0.267)	(0.267)
Not enrolled and did graduate high school	0.852***	0.845***	0.845***	0.851***
	(0.184)	(0.185)	(0.185)	(0.185)
High school	0.058	0.041	0.046	0.055
	(0.217)	(0.217)	(0.217)	(0.217)
2 year college/vocational/technical/other	0.465**	0.459**	0.458**	0.465**
	(0.168)	(0.168)	(0.169)	(0.168)
Receiving public assistance	1.022***	1.034***	1.031***	1.024***
	(0.162)	(0.162)	(0.162)	(0.162)
Biological mother <20 years old at first birth	0.348*	0.373**	0.369**	0.351*
	(0.139)	(0.139)	(0.139)	(0.139)
Family Structure (Reference: Two parent family)				
Single biological parent only	0.136	0.147	0.146	0.136
	(0.145)	(0.145)	(0.146)	(0.145)
Other	0.532*	0.558*	0.552*	0.535*
	(0.245)	(0.246)	(0.246)	(0.246)
Mother's education <high school graduate	-0.093	-0.112	-0.118	-0.092
	(0.233)	(0.233)	(0.233)	(0.233)
Parental income (Reference: $15,000 or more)				
$14,999 or less	-0.038	-0.062	-0.060	-0.040
	(0.201)	(0.201)	(0.201)	(0.202)
Don't know/refused	0.018	0.015	0.008	0.020
	(0.169)	(0.169)	(0.169)	(0.169)
Observations	971	971	971	971

Standard errors in parentheses
Two-tailed tests, *p<.05 **p<.01 ***p<.001

Table 4: OLS Regression of the Association between Religiosity and Absolute Value of the Difference in Pregnancy Motivations

	Model 1	Model 2	Model 3	Model 4
Biblical literalism	0.273**			0.291**
	(0.099)			(0.105)
Religious importance and frequency of prayer (average)		0.059		0.075
		(0.040)		(0.045)
Frequency of attendance			-0.038	-0.081**
			(0.028)	(0.031)
Religious Affiliation (reference: Mainline Protestant)				
Conservative Protestant	-0.200	-0.187	-0.176	-0.185
	(0.162)	(0.163)	(0.163)	(0.162)
Catholic	(0.031	0.019	-0.012	0.043
	(0.176)	(0.177)	(0.177)	(0.176)
Other	-0.292	-0.310	-0.354	-0.300
	(0.231)	(0.232)	(0.232)	(0.231)
No religion	-0.007	0.019	-0.109	-0.024
	(0.173)	(0.180)	(0.177)	(0.180)
Sociodemographic Characteristics				
Age (Reference: 18 years)				
19 years	-0.139	-0.134	-0.139	-0.145
	(0.086)	(0.086)	(0.086)	(0.086)
20 years	-0.131	-0.136	-0.142	-0.145
	(0.149)	(0.150)	(0.150)	(0.149)
Race (Reference: non-Black)				
Black	-0.003	0.017	0.097	0.029
	(0.102)	(0.104)	(0.104)	(0.106)
School enrollment and type (Reference: 4 year college)				
Not enrolled and did not graduate	-0.717***	-0.734***	-0.746***	-0.757***
	(0.168)	(0.169)	(0.169)	(0.168)
Not enrolled and did graduate high school	-0.369**	-0.361**	-0.385***	-0.389***
	(0.117)	(0.117)	(0.118)	(0.117)
High school	-0.169	-0.154	-0.170	-0.174
	(0.137)	(0.138)	(0.138)	(0.137)
2 year college/vocational/technical/other	-0.158	-0.152	-0.160	-0.166
	(0.107)	(0.107)	(0.107)	(0.106)
Receiving public assistance	-0.281**	-0.291**	-0.288**	-0.284**
	(0.102)	(0.103)	(0.103)	(0.102)
Biological mother <20 years old at first birth	-0.280**	-0.302***	-0.299***	-0.287**
	(0.088)	(0.088)	(0.088)	(0.088)
Family Structure (Reference: Two parent family)				
Single biological parent only	-0.017	-0.025	-0.045	-0.036
	(0.092)	(0.092)	(0.092)	(0.092)
Other	-0.161	-0.184	-0.185	-0.174
	(0.156)	(0.156)	(0.156)	(0.155)
Mother's education <high school graduate	0.039	0.054	0.057	0.028
	(0.147)	(0.148)	(0.148)	(0.147)
Parental income (Reference: $15,000 or more)				
$14,999 or less	-0.251*	-0.230	-0.245*	-0.262*
	(0.127)	(0.128)	(0.128)	(0.127)
Don't know/refused	-0.033	-0.031	-0.031	-0.047
	(0.107)	(0.107)	(0.107)	(0.107)
Observations	971	971	971	971

Standard errors in parentheses
Two-tailed tests, *p<.05 **p<.01 ***p<.001

Table 5: OLS Regression of the Association between Religiosity and Ambivalent Continuous Pregnancy Motivations

	Model 1	Model 2	Model 3	Model 4
Biblical literalism	-0.681*			-0.639*
	(0.299)			(0.317)
Religious importance and frequency of prayer (average)		-0.252*		-0.297*
		(0.120)		(0.137)
Frequency of attendance			0.060	0.197*
			(0.085)	(0.095)
Religious Affiliation (reference: Mainline Protestant)				
Conservative Protestant	0.513	0.485	0.461	0.477
	(0.491)	(0.491)	(0.492)	(0.490)
Catholic	-0.227	-0.236	-0.127	-0.288
	(0.533)	(0.534)	(0.534)	(0.533)
Other	0.415	0.416	0.553	0.400
	(0.698)	(0.699)	(0.700)	(0.698)
No religion	-0.167	-0.364	0.040	-0.260
	(0.524)	(0.544)	(0.536)	(0.545)
Sociodemographic Characteristics				
Age (Reference: 18 years)				
19 years	0.172	0.154	0.167	0.181
	(0.259)	(0.260)	(0.260)	(0.259)
20 years	0.364	0.378	0.386	0.401
	(0.451)	(0.451)	(0.452)	(0.450)
Race (Reference: non-Black)				
Black	0.323	0.342	0.110	0.305
	(0.309)	(0.312)	(0.315)	(0.319)
School enrollment and type (Reference: 4 year college)				
Not enrolled and did not graduate	0.294	0.344	0.352	0.403
	(0.508)	(0.508)	(0.511)	(0.509)
Not enrolled and did graduate high school	0.594	0.557	0.622	0.626
	(0.353)	(0.353)	(0.355)	(0.354)
High school	0.899*	0.845*	0.895*	0.890*
	(0.415)	(0.415)	(0.416)	(0.415)
2 year college/vocational/technical/other	0.320	0.301	0.320	0.334
	(0.322)	(0.322)	(0.323)	(0.321)
Receiving public assistance	-0.377	-0.346	-0.359	-0.361
	(0.309)	(0.310)	(0.310)	(0.309)
Biological mother <20 years old at first birth	0.436	0.497	0.483	0.465
	(0.266)	(0.265)	(0.266)	(0.266)
Family Structure (Reference: Two parent family)				
Single biological parent only	0.073	0.082	0l.132	0.112
	(0.277)	(0.277)	(0.279)	(0.278)
Other	0.207	0.268	0.262	0.249
	(0.470)	(0.470)	(0.471)	(0.469)
Mother's education <high school graduate	0.472	0.442	0.424	0.501
	(0.445)	(0.445)	(0.446)	(0.444)
Parental income (Reference: $15,000 or more)				
$14,999 or less	0.647	0.584	0.626	0.657
	(0.385)	(0.385)	(0.386)	(0.385)
Don't know/refused	0.061	0.063	0.052	0.1001
	(0.323)	(0.323)	(0.324)	(0.323)
Observations	971	971	971	971

Standard errors in parentheses
Two-tailed tests, *p<.05 **p<.01 ***p<.001

Table 6: OLS Regression of the Association between Religiosity and Antinatal Continuous Pregnancy Motivations

	Model 1	Model 2	Model 3	Model 4
Biblical literalism	1.50*			1.504*
	(0.645)			(0.684)
Religious importance and frequency of prayer (average)		0.262		0.172
		(0.260)		(0.295)
Frequency of attendance			0.013	-0.149
			(0.182)	(0.204)
Religious Affiliation (reference: Mainline Protestant)				
Conservative Protestant	-1.026	-0.952	-0.944	-0.999
	(1.057)	(1.059)	(1.060)	(1.058)
Catholic	0.829	0.740	0.644	0.861
	(1.149)	(1.153)	(1.150)	(1.152)
Other	-0.519	-0.643	-0.747	-0.523
	(1.504)	(1.508)	(1.508)	(1.508)
No religion	0.927	0.990	0.675	0.938
	(1.129)	(1.173)	(1.155)	(1.178)
Sociodemographic Characteristics				
Age (Reference: 18 years)				
19 years	-0.495	-0.464	-0.471	-0.503
	(0.559)	(0.560)	(0.561)	(0.560)
20 years	0.362	0.334	0.338	0.335
	(0.972)	(0.974)	(0.975)	(0.973)
Race (Reference: non-Black)				
Black	0.241	0.396	0.557	0.280
	(0.665)	(0.674)	(0.679)	(0.689)
School enrollment and type (Reference: 4 year college)				
Not enrolled and did not graduate	-4.033***	-4.123***	-4.098***	-4.110***
	(1.095)	(1.097)	(1.101)	(1.100)
Not enrolled and did graduate high school	-3.516***	-3.483***	-3.519***	-3.549***
	(0.760)	(0.763)	(0.765)	(0.764)
High school	-0.429	-0.354	-0.392	-0.432
	(0.894)	(0.897)	(0.897)	(0.896)
2 year college/vocational/technical/other	-1.942**	-1.913**	-1.922**	-1.956**
	(0.693)	(0.695)	(0.696)	(0.695)
Receiving public assistance	-4.065***	-4.119***	-4.105***	-4.073***
	(0.667)	(0.668)	(0.668)	(0.667)
Biological mother <20 years old at first birth	-1.570**	-1.686**	-1.669**	-1.586**
	(0.573)	(0.573)	(0.573)	(0.574)
Family Structure (Reference: Two parent family)				
Single biological parent only	-0.513	-0.565	-0.590	-0.545
	(0.597)	(0.598)	(0.601)	(0.600)
Other	-2.029*	-2.148*	-2.133*	-2.055*
	(1.013)	(1.014)	(1.015)	(1.014)
Mother's education <high school graduate	0.420	0.509	0.531	0.400
	(0.959)	(0.960)	(0.961)	(0.960)
Parental income (Reference: $15,000 or more)				
$14,999 or less	-0.181	-0.074	-0.101	-0.196
	(0.828)	(0.830)	(0.831)	(0.831)
Don't know/refused	-0.168	-0.153	-0.134	-0.195
	(0.696)	(0.698)	(0.699)	(0.698)
Observations	971	971	971	971

Standard errors in parentheses
Two-tailed tests, *p<.05 **p<.01 ***p<.001