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The Influence of Religiosity on Contraceptive Use and Abortion in the United States

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ABSTRACT

The CDC has conducted the National Survey of Family Growth (NSFG) every three to seven years between 1973 and 2002 to describe contraceptive use among women in the U.S. The data from these surveys are available to researchers to examine trends in contraceptive use and sexual behaviors. The purpose of this study was to examine data from the 2002 NSFG in order to determine the influence of religiosity on abortion and abortifacient contraceptive use, i.e., the use of the oral contraceptive pill (OC), the injected hormone Depoprovera (IC), the IUD, and hormonal emergency contraception (EC), among American women between the ages of 15-44. The NSFG is a population-based selection of 7,676 women. The 2002 data set contains variables on whether the woman had ever used abortion, the above methods of family planning, and variables on the importance of religion, church attendance, and attitudes on sexuality. We found (based on statistical odds ratios) that those women who viewed religion as very important attended church frequently (i.e., at least once a week) and held traditional attitudes on religion were less likely to have had an abortion in the past twelve months and less likely to use OCs, ICs, and ECs. There was no difference in the likelihood of ever having used IUDs. We concluded that religiosity has a suppressing effect on abortion and abortifacient contraceptive use.

EVERY FIVE TO SEVEN YEARS, the National Center for Health Statistics conducts a large population-based survey called the National Survey of Family Growth (NSFG) for the purpose of describing reproductive health practices among women in the United

States.¹ The U.S. Government uses the data to plan programs and set policies related to contraception use and sexual and reproductive health. The NSFG data is made available to researchers and scholars, who analyze it to determine trends in family size and makeup, contraceptive choices, and contraceptive effectiveness.

The NSFG is conducted using a nationally representative, randomly selected sample of women aged 15-44 in the U.S. Interviews are conducted in person and take approximately eighty minutes to complete. The response rates in these surveys range from 75% to 80%. In the 2002 NSFG (Cycle 6) there were 7,635 women in the sample and 3,675 variables, including variables on religion, church attendance, and sexual attitudes.² The purpose of this paper is to analyze the variables in this data set that reflect the religiosity of the women respondents and to determine the influence that religiosity has on their use of abortion and potentially abortifacient type methods of contraception.

ABORTIFACIENT METHODS OF BIRTH CONTROL

Besides abortion, the methods of birth control that were analyzed in this paper are those that some experts consider as potential causes of abortion, i.e., hormonal birth control methods, including oral contraception (OC) and injectable methods such as Depoprovera (IC), emergency hormonal contraception (EC), and the intrauterine device (IUD).³ The authors recognize that there is controversy as to whether these methods of birth control truly act as abortifacients. We also recognize that in 1965 the American College of Obstetricians and Gynecologists declared that pregnancy does not begin until implantation of the human embryo into the

¹ W. D. Mosher, "Use of Contraception and Use of Family Planning Services in the United States: 1982-2002," *Adv Data* 10/350 (2004):1-36.

² See Mosher (2004), cited above. See also L.J. Piccinino & W.E. Mosher, "Trends in Contraceptive Use in the United States: 1982-1995," *Family Planning Perspectives* 30/1 (1998):4-10,46.

³ See C.Y. Valenzuela, "Postovulatory Effects of Levonorgestrel in Emergency Contraception," *Contraception* 75 (2007): 401-02. See also H. Croxatta, "Response to Letter to Editor" (regarding "Postovulatory Effects of Levonorgestrel in Emergency Contraception"), *Contraception* 73 (2006): 402.

uterus.⁴ The American Medical Association recently confirmed this definition in its claim that EC does not act as an abortifacient. However, for those who believe that human life begins at the moment of fertilization, there is serious evidence that the above methods of birth control do cause abortions.

To act as an abortifacient, a method of birth control must fail to suppress ovulation, fail to interfere with the fertilization process, and then in some way either destroy the embryo or disrupt the transportation and implantation of the embryo into the uterus. Recent studies using indirect evidence have concluded that hormonal contraception,⁵ inert and hormonally active IUDs,⁶ and EC⁷ have both pre- and post-fertilization mechanisms of action. There is some new evidence based on ultrasound measurement of the follicles to indicate that non-continuous use of hormonal contraception will result in follicular growth that ends in ovulation.⁸ In other words, at times the use of OCs does not effectively prevent ovulation. Furthermore, there has been admission by contraception advocates that EC and OC and other hormonal birth control methods can act by making the uterine lining unacceptable for implantation of a

⁴ "Terms Used in Reference to the Fetus," *American College of Obstetricians and Gynecologists Terminology Bulletin* 1 (Sept. 1965).

⁵ W.K. Larimore & J.B. Stanford, "Postfertilization Effects of Oral Contraceptives and Their Relationship to Informed Consent," *Archives of Family Medicine* 9 (2000): 126-33.

⁶ J.B. Stanford & R.T. Mikolajczyk, "Mechanism of Action of Intrauterine Devices: Update and Estimation of Postfertilization Effects," *American Journal of Obstetrics and Gynecology* 18 (2002): 1-15.

⁷ See C. Kahlenborn, J.B. Stanford, W.L. Larimore, "Postfertilization Effect of Hormonal Emergency Contraception," *Annals of Pharmacotherapy* 36 (2002): 465-70. See also R.T. Mikolajczk & J.B. Stanford, "Levonogestrel Emergency Contraception: A Joint Analysis of Effectiveness and Mechanism of Action," *Fertility and Sterility* (Feb. 21, 2007), E-publication ahead of print.

⁸ R.L. Birtch, O.A. Olatunbosun, & R.A. Pierson, "Ovarian Follicular Dynamics during Conventional vs. Continuous Oral Contraceptive Use," *Contraception* 73 (2006): 235-43.

fertilized ovum.⁹ Authors of a recent comprehensive review of the mechanism involved in the IUD admit that use of the IUD might produce non-viable embryos¹⁰ even though the main mechanism of action is not the destruction of the embryo in the uterus. The authors of two recent pilot studies on the mechanisms of action of EC concluded that EC works by delaying or preventing ovulation when taken immediately before ovulation, but they admit that retardation of the endometrium is another plausible mechanism.¹¹

RELIGIOSITY, CONTRACEPTION, AND ABORTION

For the purposes of this paper, religiosity is conceptually defined as religious beliefs, practices, moral values and guidance, and involvement in a faith community.¹² As part of that moral guidance, most mainline religions, traditionally have taught that sexual intercourse is to take place between a man and woman within the context of marriage. Some mainline religions teach that abortion and artificial means of contraception (in particular, the potentially abortifacient types) are morally unacceptable.¹³ At the same time, many of the world's religions have become more liberal

⁹ J. Trussel, "Mechanism of Action of Emergency Contraceptive Pills," *Contraception* 74/2 (2006): 87-89.

¹⁰ M.E. Ortiz & H.B. Croxatto, "Copper-T Intrauterine Device and Levonorgestrel Intrauterine System: Biological Bases of Their Mechanism of Action," *Contraception* 75/6 (2007): S16-30.

¹¹ See N. Novikova, E. Weisbert, F.Z. Stanczyk, H.B. Croxatto & I.S. Frasier, "Effectiveness of Levonorgestrel Emergency Contraception Given before or after Ovulation—A Pilot Study," *Contraception* 75 (2007): 112-18. See also I.A. Okewole, A.O. Arowojolu, O.L. Odusoga, O.A. Oloyede, O.A. Adeleye OA, J. Salu, & O.A. Dada, "Effect of Single Administration of Levonorgestrel on the Menstrual Cycle," *Contraception* 75/5 (2007): 372-77.

¹² See H.G. Koenig, "Spirituality, Wellness, and Quality of Life," *Sexuality, Reproduction & Menopause* 2 (2004): 76-82. See also D.W. Haffner, "Faith Matters: Communicating Sexual and Reproductive Health Values," *Contraception* 75 (2007): 1-3.

¹³ R.O. Schamp, A.L. McGaughran, S. Lang, & P.F. Doughty, "The Case against the Use of Oral Contraceptives," *Journal of Biblical Ethics in Medicine* 7 (1994): 22-24.

on sexual issues during the twentieth century. Some major religions do not maintain that use of contraception, or even abortion, is morally wrong. Even within those religions that condemn contraception and abortion, there are dissenting members. Furthermore, women do not all internalize their beliefs and carry them out in their daily lives to the same degree.

However, we assume that the more important religion is in a woman's life and the more she practices her faith, the less likely it is that she will have an abortion or use abortifacient methods of contraception. In addition, women who feel their religious beliefs are very important will probably receive support for their beliefs from other members and religious leaders. Hopefully, these women also receive strength in their beliefs from their prayer life, a sense of purpose, attending religious services, and their involvement in a faith community.

BACKGROUND RESEARCH STUDIES

Research with adults regarding their religiosity and abortion attitudes suggests that attitudes toward abortion are directly affected not only by religiosity but also by other factors. Granberg¹⁴ found that Catholics were more likely to oppose abortion if their spouse were also Catholic, which suggests that the need for agreement between spouses is more influential on that attitude than are religious beliefs. Emerson¹⁵ determined that opposition to abortion was directly affected by aspects of public religiosity (service attendance, religious affiliation, and involvement in church activities), but that personal aspects of religiosity (frequency of prayer, frequency of Bible reading, closeness to God, and having a faith free of doubts) and public and private orthodoxy influenced opposition to abortion only indirectly through personal worldview and moral reasoning. Gay and Lynxwiler¹⁶ found that attitudes toward abortion are mitigated by race, with African American Protestants more likely to be pro-choice than their White counterparts, even after controlling for church attendance and orthodoxy of beliefs.

The effect of religiosity on adult sexual behavior in general has scarcely been studied, but does show that, as religiosity is stronger, sexual relations outside of the marital bond are less likely. Cochran, Chamlin,

¹⁴ D. Granberg, "Conformity to Religious Norms regarding Abortion," *The Sociological Quarterly* 32/2 (1991): 267-75.

¹⁵ M.O. Emerson, "Through Tinted Glasses: Religion, Worldviews, and Abortion Attitudes," *Journal for the Scientific Study of Religion* 35/1 (1996): 41-55.

¹⁶ D. Gay & J. Lynxwiler, "The Impact of Religiosity on Race Variations in Abortion Attitudes," *Sociological Spectator* 19/3 (1999): 359-77.

Beeghley, and Fenwick¹⁷ found that the effects of religiosity varied across religious groups. They also discovered aspects of religiosity that were most important in regards to affecting sexual behavior. For those identified as Catholic, a self-identification of religion as important and frequency of church attendance were significantly associated with a lower incidence of premarital sex. For conservative Protestants, only increased church attendance was associated with a lower incidence of premarital sex; and for liberal Protestants, self-identification of church membership was associated with a lower incidence of premarital sex.

There is a growing body of research that examines the effect of religiosity on adolescent sexual behavior. The research on adolescents shows that a higher level of religiosity (defined as more frequent church attendance and self-report of religious importance) is associated with a delay in the onset of sexual activity¹⁸ a lower number of lifetime partners,¹⁹ more conservative sexual attitudes,²⁰ and a decreased likelihood of having an abortion among pregnant adolescents.²¹ Parental religiosity has also been linked to adolescent behavior. Adolescents whose parents

¹⁷ J.K. Cochran, M.B. Chamlin, L. Beeghley, & M. Fenwick, "Religion, Religiosity, and Nonmarital Sexual Conduct: Application of Reference Group Theory," *Sociological Inquiry* 74/1 (2004): 102-27.

¹⁸ See: J.K. Davidson, N.B. Moore, & K.M. Ullstrup, "Religiosity and Sexual Responsibility: Relationships of Choice," *American Journal of Health Behaviors* 28/4 (2004): 335-46; M.P. Dunne, R. Edwards, J. Lucke, M. Donald, & B. Raphael, "Religiosity, Sexual Intercourse and Condom Use among University Students," *Australian Journal of Public Health* 18/3 (1994): 339-41; E.S. Lefkowitz, M.M. Gillen, C.L. Shearer, & T.L. Boone, "Religiosity, Sexual Behaviors, and Sexual Attitudes during Emerging Adulthood," *Journal of Sex Research* 41/2 (2004): 150-59; Hubbard, D. McCree, G.M. Wingood, R. DiClemente, S. Davies, & K.F. Harrington, "Sexuality and Risky Sexual Behavior in African-American Adolescent Females," *Journal of Adolescent Health* 33 (2003): 2-8; S.S. Rostosky, M.D. Regenerus, & M.L. Comer Wright, "Coital Debut: The Role of Religiosity and Sex Attitudes in the Add Health Survey," *Journal of Sex Research* 40/4 (2003): 358-67; L.B. Whitbeck, D.R. Hoyt, & K.A. Yoder, "A Risk-Amplification Model of Victimization and Depressive Symptoms among Runaway and Homeless Adolescents," *American Journal of Community Psychology* 27/2 (1999): 273-96.

¹⁹ See Davidson et al. (2004), cited above.

²⁰ See Lefkowitz et al. (2004), cited above.

²¹ See: L.K. Stevans, C.A. Register, & D.N. Sessions, "The Abortion Decision: A Qualitative Choice Approach," *Social Indicators Research* 27/4 (1992): 327-5; A. Tomal, "The Effect of Religious Membership on Teen Abortion Rates," *Journal of Youth and Adolescence* 30/1 (2001): 103-17.

reported higher church attendance or who had daily religious activities (such as prayer or bible study) had a later coital debut.²²

In summary, the research that is available on these topics does support the theory that a person with a higher level of religiosity is less likely to have an abortion. In addition, while the research review did not reveal any other studies looking directly at religiosity's effect on the use of abortifacient contraceptives, it does support the theory that religiosity affects other sexual behavior and attitudes: the higher the degree of religiosity, the more traditional the sexual attitudes and behaviors.

TRADITIONAL ATTITUDES ON HUMAN SEXUALITY

Although Roman Catholicism is the only mainline faith system that is clear on its opposition to both the use of contraception and abortion, other faith systems, such as conservative Lutherans, Evangelicals, conservative Jews, and Muslims do prohibit the use of abortion and have limits on the use of contraception; conservative Lutherans, for instance, are restrictive on some methods of birth control and, in particular, on those methods that might cause an abortion.²³ Furthermore, most of the traditional faith systems hold that human sexuality (i.e., sexual relations and intercourse) should happen only between a man and woman and should only occur within the context of a covenanted relationship, i.e., marriage.

Along with this restriction is the belief that human sexuality is connected to human procreation and that sexuality and procreation should not be separated but should remain whole, in a way that is integrated within the individual and within human relationships. There is the belief that the separation of human sexuality from procreation or fertility is a dualism that is destructive to human relationships and objectifies the man and woman. We theorize that those women who have traditional beliefs in regards to human sexuality, e.g., that sexual relations should only occur between a man and woman and only within the bonds of marriage, will resist the use of abortion and dualistic attitudes on birth control.

Therefore, in line with the research findings that religiosity, particularly in adolescents, is associated with other traditional sexual values (decreased premarital sex, delayed initiation of sex) we hypothesized that American women who believe that their religion is very important, who frequently attend church services, and who hold tradi-

²² See Whitbeck et al. (1999), cited above; and J.S. Manlove, E. Terry-Humen, E.N. Ikramullah, & K.A. Moore, "The Role of Parent Religiosity in Teens' Transitions to Sex and Contraception," *Journal of Adolescent Health* 39 (2006): 578-87.

²³ J.G. Schenker & V. Rabenou, "Contraception: Traditional and Religious Attitudes," *European Journal of Obstetrics, Gynecology, and Reproductive Biology* 49 (1993): 15-18.

tional beliefs about human sexuality will report a lower use of abortion and contraceptive methods that might induce an abortion.

METHOD

There were 7,365 women participants in the 2002 (Cycle 6) study by the NSFG and 3,456 variables in the data set. The authors analyzed the following dependent variables from this data set: (1) the number of abortions experienced, (2) the number of abortions in the past twelve months, (3) whether OC was ever used, (4) whether IC was ever used, (5) whether EC was ever used, (6) the number of times that EC was used, and (7) whether the IUD was ever used.

The independent variable of religiosity was measured by two variables from the NSFG data set (i.e., importance of religion and frequency of attendance at religious services) and by a combination of six variables that reflect traditional attitudes on human sexuality. Importance of religion in the respondent's daily life was originally recorded as: (1) very important, (2) somewhat important, and (3) not important. For analysis purposes these responses were dichotomized into two categories: (1) very important and (2) not important.

For the frequency in religious attendance question respondents could choose 1 of 5 items for a response: (1) more than once a week, (2) once a week, (3) one to three times per month, (4) less than once a month, and (5) never. For analysis purposes the responses were collapsed into two categories: (1) frequent church attendance (i.e., more than once a week and once a week), and (2) not frequent church attendance (i.e., one to three times per month, less than once a month, and never).

The independent variable of Traditional Attitudes on Sexuality (TAS) was measured by combining six items from the data set and summing a total score. Each of the six items could be classified as "strongly agree" or "agree," "not sure," "disagree" or "strongly disagree." The highest score obtained was 30 when the respondent strongly agreed with the six traditional attitudes and the lowest score of 6 when she strongly disagreed with the six traditional attitudes. The six traditional sexual attitude questions were: (1) "Same sex relationships between two adults are always wrong," (2) "Sexual acts between two consenting adults are (not) OK," (3) "it is (not) OK for unmarried 16 year olds to have sex if there is a strong affection," (4) "it is (not) OK for unmarried 18 year olds to have sex if there is a strong affection," (5) "it is (not) OK for an unmarried female to have a child," and (6) "it is not OK for a young couple to live together unless married."

Descriptive statistics were used to determine the demographic makeup of the sample, including age, religion, marital status, parity, education, and income level. Chi square and relative risk odds ratios (OR), i.e., the likelihood of having had an abortion or having used a method of

contraception (based on 95% confident intervals and a significant probability of 0.05 or less) were calculated with the sample dichotomized by: (1) frequent church attendance versus not frequent attendance, (2) religion as important versus not important, and (3) traditional versus non-traditional views on human sexuality. Independent student T-tests were calculated on the mean levels of number of abortions and number of times that EC was used, with the same dichotomized groupings listed above. Statistical significance was set at the 0.01 probability level. Statistical analysis was performed by use of the Statistical Package for Social Sciences (SPSS version 15).

The NSFG (Cycle 6) data set is available through the National Center for Health Statistics, either through the mail or downloadable through the Internet into SPSS files. The data set does not contain any identifying variables and is intended for public use. This research was reviewed and approved by the Marquette University Office of Research Compliance.

RESULTS

There were 7,635 U.S. women who answered the questions about abortion and contraceptive practices and whose data were included in this analysis (see Table 1). The mean age of these women was 29.50 (range = 15-44; SD = 8.43), the mean parity was 1.24 living children (range 0-22; 1.77). Only 40.1% of the women in the sample were currently married, 46% were never married, but 51% were currently cohabiting. Most (80%) belonged to a Christian denomination, with Catholics (29.4%) being the most predominant. There was a fairly high percentage that listed no religion (14.5%). Over 73% of the women respondents used OC in the past, 17.4% used Depo (IC) in the past, 4.6% used EC in the past, and close to 25% admitted to having had an abortion (see Table 2).

The OR (with 95% confidence intervals) of having had an abortion or having used an abortifacient method of contraception (OC, IC, EC, or IUD) among U.S. women based on importance of religion, frequency of attendance at religious services, and TAS can be found in Table 3.

Importance of Religion

When compared to those who reported religion as not very important, those women who reported religion as very important were 41% less likely to have had an abortion in the last twelve months, 3.7% less likely to have used OC, 12.6% less likely to use IC, and 36% less likely to ever have used EC. However, these women were 26% more likely ever to have used the IUD. Those women who reported religion as very important had a mean lifetime total abortions of 0.33 (SD=0.803) compared with a mean of 0.44 (SD=0.818) for those women who viewed religion as less important. This was statistically significant by student t-test ($t= 4.78$, $p < 0.001$). However, women who reported religion as very important had a

mean number of use of EC of 1.68 (SD=1.70) compared with a mean of 1.34 (SD=0.730) for women who viewed religion as less important. This was also a statistically significant difference ($t=2.416$, $p < 0.016$).

Church Attendance

When compared to those with less frequent church attendance, women with high frequency church attendance were 64% less likely to have had an abortion in the last twelve months, 10.3% less likely ever to have used OC, 28.7% less likely ever to have used IC, and 44.2% less likely ever to have used EC. There was no difference in whether they had ever used the IUD. There was, however, a significant difference in the mean number of induced abortions. The women with high frequency of church attendance had a mean number of induced abortions of 0.27 (SD=.709) compared to a mean of 0.49 (SD=0.898) with low-church attendance women (t -test = 9.40, $p < 0.001$). There was no difference in the mean number of times using EC.

Traditional Attitudes on Sexuality

Those women who strongly agreed or agreed with TAS were 79.8% less likely ever to have had an abortion, 9.6% less likely ever to have used OC, 46.2% less likely ever to have used IC, and 89.6% less likely ever to have used EC compared to women who disagreed or strongly disagreed with TAS. There was no difference in use of the IUD. There was a statistical significant differences in frequency of abortion and the use of EC, with the women who held TAS having on average fewer abortions (t -test = 4.56, $p < 0.001$) and less use of EC (t -test = 3.45, $p < 0.01$) than those women who did not hold TAS.

DISCUSSION

The overall findings from the 2002 NSFG indicate that religiosity influences patterns of abortion and contraceptive use among U.S. women. In general, the more religious the women are, the less frequent is the use of abortion and abortifacient methods of contraception. Furthermore, the more U.S. women practice their religion in terms of church attendance and hold traditional attitudes towards human sexuality, the less is their use of abortion and abortifacient contraceptives. This is in line with previous research findings that indicated a strong, positive relationship between religiosity and traditional sexual attitudes and behaviors, as well as between religiosity and fewer abortions. However, for some reason there was no difference in the frequency of having ever used the IUD.

An earlier study by these authors found that religiosity influenced the use of contraceptives among the subset of 2,250 Roman Catholic women

of the total group of women in the 2002 NSFG.²⁴ In that study we found that Catholic women were more likely to have used NFP, and less likely to have used condoms and the pill, if they attended church services frequently, believe that their Catholic faith is very important, and are orthodox in their sexual ethics. However, they also used female sterilization more frequently. So, even though these women seemed to be influenced by their religion, many of them were not able to integrate nor live with their fertility. An analysis of this subgroup for the current study, did show that there was statistically less use of abortion (both total and in the past twelve months), but no difference in the frequency of use of EC or the IUD compared with U.S. women in general.

One reason that religious U.S. women (i.e., those who frequent church and believe that their religion is very important and hold TAS) showed no statistical difference in the use of the IUD than less-religious women might be due to a lack of understanding of their religion's teaching on family planning and sexual ethics and/or to a lack of understanding that the IUD is potentially abortifacient. Another possible reason is that, although U.S. women know their Church's teachings on abortion and contraception, they view themselves as "autonomous" adults, and downplay or ignore the role of their religion's official teachings in forming their consciences on the issue of family planning.²⁵ Furthermore, there is evidence that Americans have a profound ignorance of their religion²⁶ and either ignore or reject the teaching authority of the Church.²⁷

Although the NSFG data is probably the best and largest data set on contraceptive use among a representative sample of women in the U.S., there are limits to this study and to the data set. The NSFG data set focused on all women between the ages of 15-44, not only married women. Approximately 27% of the respondents were not using any method of family planning in the month of interview (i.e., the most frequent method was no method of contraception). Some of these women were not sexually active, some were trying to achieve a pregnancy, and some were currently pregnant.

²⁴ R. Fehring & J.M. Ohlendorf, "The Relationship between Religiosity and Contraceptive Use among Roman Catholic Women in the United States," *The Linacre Quarterly* 74 (2007): 135-44.

²⁵ L.W. Tentler, *Catholics and Contraception: An American History* (Ithaca NY: Cornell Univ. Press, 2004).

²⁶ S. Prothero, "Worshipping in Ignorance," *The Chronicle Review* (March 16, 2007), p. B6-B7.

²⁷ W.V. D'Antonio, D. Hoge, M. Gautier, & J. Davidson, *American Catholics Today: New Realities of Their Faith and Their Church* (Lanham MD: Roman and Littlefield, 2007).

Another limit was that the use of the variable of abortion (in the past twelve months and over a lifetime) is not recommended as a true reflection of abortion frequency. There is some evidence that there is an under-reporting of abortion.²⁸ One could speculate that women who are more religious might be more reluctant to report having an abortion even to an anonymous survey.

Finally, another limitation is the difficulty of trying to measure religiosity among women using a retrospective data set. Religiosity has multiple dimensions that include belief, intrinsic religiosity, religious well-being, and participation in organized religious activity.²⁹ The measure of religiosity in this study was limited to the items used in the 2002 NSFG. A very important component of religiosity that is missing is whether faith is intrinsic (or extrinsic) to the individual respondent. We hoped that the items in the TAS could reflect somehow an (intrinsic) internalization of the sexual teaching of most of the faith systems represented in the NSFG.

Recommendations for future research include comparing the findings from the 2002 NSFG data set with the data from the 1995 (Cycle 5) data set. The 1995 NSFG had a greater number of US women (10,847) and Catholic women respondents (over 3,000). Comparing results would help to determine trends in contraceptive use, abortion practices, and religiosity. A unique and new feature of the 2002 NSFG is the inclusion of 4,928 randomly selected male respondents. Therefore, another analysis that could be made would be to compare the answers from the male respondents to the answers from the female respondents in the 2002 NSFG, using the same variables. Another important area would be to analyze the influence of religiosity on important cultural groups, particularly the Hispanic subgroup.

Although there seems to be some influence of religion on the family planning choices and the use of abortion among U.S. women, it is still quite apparent that U.S. women and couples have difficulty in either living with or accepting their fertility. This is evident from the fact that their most frequent ways of managing fertility are to suppress it with the hormonal pill, to block it with condoms, to destroy it with surgery, or to abort a developing baby. Another implication is that although women and couples view their faith as very important, they may not have a good

²⁸ R. Jagannathan, "Relying on Surveys to Understand Abortion Behavior: Some Cautionary Evidence," *American Journal of Public Health* 91 (2001): 1825-31. L.B. Smith, N.E. Adler, & J.M. Tschann, "Underreporting of Sensitive Behaviors: The Case of Young Women's Willingness to Report Abortion," *Health Psychology* 18/1 (1999): 37-43.

²⁹ H.G. Koenig, M. Smiley, J.A.P. Gonzales, *Religion, Health, and Aging. A Review and Theoretical Integration* (Westport CT: Greenwood Press, 1988).

understanding of the faith and what it teaches, especially in the area of sexuality, contraception, and abortion. This is further exacerbated by the lack of support from clergy, health professionals, and health institutions in the area of family planning. Relatively few physicians, advanced practice nurses, and health facilities offer and promote the use of NFP.³⁰

Perhaps the most important finding from our analysis of this large data set is that there is a mixed influence of religion on women's abortion and contraceptive practices. It is encouraging that there is less use of abortion and abortifacient methods of contraception among women who attend church services frequently and in those who report religion as very important. However, there is also a frequent use of the IUD among this group. This would seem to indicate a need for better catechesis, perhaps at a younger age, for men and women. However, further research would be helpful in determining whether religious beliefs enter into the decision of women who are choosing a method of family planning or who are contemplating an abortion. Perhaps more discussion of God's true design for marriage, the Theology of the Body, and strategies for living with one's fertility would lead more women to reconsider their use of abortion and contraceptive practices and to encourage a newfound interest in living with fertility in accordance with God's plan.

³⁰ R. Fehring, "Physicians' and Nurses' Knowledge and Use of Natural Family Planning," *The Linacre Quarterly* 62 (1995): 22-28; R. Fehring, L. Hanson, & J. Stanford, "Nurse-Midwives' Knowledge and Promotion of Lactational Amenorrhea and Other Natural Family Planning Methods for Child Spacing," *Journal of Midwifery & Women's Health* 46/2 (2001): 68-73; J.B. Stanford, P.B. Thurman, & J.S. Lemaire, "Physicians' Knowledge and Practice regarding Natural Family Planning," *Obstetrics and Gynecology* 94 (1999): 672-78; R. Fehring & C. Werner, "Natural Family Planning and Catholic Hospitals: A National Survey," *The Linacre Quarterly* 60/4 (1993): 29-34.

Table 1: Demographics of all Women Respondents in Cycle 6 of the Natural Survey of Family Growth (NSFG)

	<u>Mean</u>	<u>Range</u>	<u>Standard Deviation</u>
Age	29.50	15-44	8.43
Parity	1.22	0-22	1.77

	<u>Frequency</u>	<u>Percent</u>
<u>Marital Status</u>		
Never Married	3517	46.0%
Married	3080	40.3%
Divorced	686	9.0%
Separated	309	4.0%
<u>Religion</u>		
Catholic	2250	29.4%
Baptist	1396	18.3%
Protestant	1001	13.1%
Other Protestant	994	13.1%
Fund Protestant	493	6.5%
Non-Christian	448	5.9%
No Religion	1107	14.5%

Table 2: Frequency (and percentage) of Having Ever Used a Method of Contraceptive and Abortion among U.S. between the age of 15-44.

<u>Method</u>	<u>Frequency*</u>	<u>Percentage</u>
Pill (OC)	5589	73.3%
Depo-Provera (IC)	1330	17.4%
Emergency Contraception (EC)	312	4.6%
IUD	384	5.7%
Abortion Last 12 months**	96	1.3%
Abortion Ever**	1227	24.8%

* To extrapolate the approximate number in the U.S., multiply by 10,000

** There is an under-reporting of abortion in the NSFG

Table 3: Odds Ratios of abortion or contraception among U.S. women based on importance of religion, church attendance, and traditional attitudes on sexuality.

Importance of Religion: women who view religion as very important

<u>Method of Family Planning</u>	<u>Odds Ratio</u>	<u>95% Confident Interval</u>	<u>Significance</u>
Use of Pill (OC)	0.963	0.937 – 0.989	0.006
Use of Depo (IC)	0.874	0.793 – 0.964	0.007
Use of EC	0.642	0.514 – 0.802	0.000
Use of IUD	1.259	1.035 – 1.531	0.021
Abortion	0.588	0.390 – 0.886	0.010

Church Attendance:

women with high church attendance

Use of Pill (OC)	0.897	0.870 – 0.925	0.000
Use of Depo (IC)	0.713	0.638 – 0.798	0.000
Use of EC	0.558	0.427 – 0.730	0.000
Use of IUD	1.000	0.812 – 1.231	1.000
Abortion	0.363	0.209 – 0.628	0.000

Traditional Attitudes Sexuality:

women who hold traditional attitudes on sexuality

Use of Pill (OC)	0.904	0.857 – 0.953	0.000
Use of Depo (IC)	0.538	0.429 – 0.674	0.000
Use of EC	0.104	0.034 – 0.324	0.000
Use of IUD	1.110	0.796 – 1.548	0.539
Abortion	0.202	0.050 – 0.819	0.013
