

Implications of Sex and Education on Abortion Attitudes: A Cross-Sectional Analysis

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Abstract: Abortion has and continues to be a prominent social issue. The mixed beliefs over abortion originate from numerous factors that affect attitudes towards abortion. This study sought to understand if and how sex and education determine abortion attitudes. Using a sample of 1111 females and 828 males acquired from the 2006 General Social Survey with a response rate of 71%, respondents were asked of their highest educational degree and approval of abortion. The results here replicate what other studies have found, that no significant relationship exists between sex and abortion attitudes and also that education has a positive effect on abortion attitudes of males and females. The findings in this study indicate that education has a stronger effect on support for abortion for females than for males.

Introduction

Abortion has been practiced for centuries and its legality has become a center point of intense debate and policy making in the United States for the past four decades. The inability for society to come to a consensus over the policies of abortion stems from the many different variables that affect attitudes of the morality and legality of abortion (Basow and Esposito 1995). One such central variable that divides society is sex. Examination of sex differences may help explain and clarify why society does not converge on this sensitive issue.

Furthermore, seeing as though the largest proportion of policymakers is male (Walzer 1994), it would be interesting and useful to find out if sex differences are a determinant on what abortion policies are adopted in the U.S.. Knowledge gained from this area of inquiry can inform and guide the development and implementation of justified public policies that impact abortion. The findings can then be extended to assess how well abortion policies are reflecting women's rights in the U.S. as reproductive choices are particularly symbolic of women's rights and roles (Finlay 1981; Walzer 1994; Wang 2003). For example, those who are supportive of abortion typically support women's economic independence and political and social rights (Wang 2003).

A good deal of research has been published regarding the effect of sex on abortion attitudes but very few of these studies focus on sex as the only independent variable (Basow and Esposito 1995; Finlay 1981; Walzer 1994; Wan 2003). Thus far, findings of whether sex affects abortion attitudes are inconsistent (Johns and Patel 2009; Wang 2003).

This study will retest and seek to clarify if and what relationship may exist between sex and abortion attitudes. The anticipated result is that a concise conclusion regarding the relationship will be made apparent. Moreover, previous studies have had relative success in

finding sex differences regarding abortion attitudes when education was controlled for. Thus, education will be the sole control variable used to help predict and explain the differentiation of attitudes towards abortion.

Literature Review

Previous efforts have been made to understand where people stand in the issue of legalized abortion in the United States and on what grounds individuals come to their conclusions. The findings of such studies are valuable in that they can help lay the groundwork in the development of abortion policies that accurately represent the views of the population. The findings may also indicate if progress is being made in the advancement of women's rights.

The majority of studies done on the variance and predictors of abortion attitudes have used one main approach. This popular method was to examine multiple variables concurrently, as opposed to focusing on a single variable that could affect abortion attitudes. Fewer studies had the latter, narrower approach, where multiple factors were not considered. The most frequently cited and utilized variables in the studies included, in no particular order: sex, education, religious affiliation and religiosity, marital status, gender role attitudes, family income, sex role conventionality, race, and knowledge on the issue of abortion. Sex has been found to be an insignificant predictor of women's and men's abortion attitudes when included in multivariate analysis (Walzer 1994). As such, this study will use sex as the primary independent variable.

As stated previously, many variables have been extensively investigated as possible predictors of abortion attitudes; among the major ones is sex (Basow and Esposito 1995). Overall, the findings of whether sex affects abortion attitudes are inconsistent and they yield diverse results.

One previous study found sex to have an effect on abortion attitudes, with males tending to have more liberal attitudes toward abortion than do females (Rogers 1987). Thus, in this particular study males were more pro-choice than females and more likely to support abortion. Rogers (1987) theorized that women take abortion more seriously than men since they have the final responsibility, and therefore tend to be more liberal in their abortion attitudes. Among the reviewed literature, no other theories were presented except by Rogers to explain the relationship between sex and abortion attitudes.

While Rogers found a relationship between sex and abortion attitudes other researchers have found very weak or no associations at all. What makes this research topic complicated is that past studies have shown that males and females agree and disagree on different reasons for abortion, with men tending to favor abortion for soft reasons (Johns and Patel 2009). Still, "...males and females exhibit little difference in their overall degree of opposition or favorability toward abortion" (Finlay 1981, p. 573). Finlay was one of the many researchers whose studies revealed the same conclusion. Basow and Esposito (1995) and Wang (2003) found no statistically significant sex differences as well.

The review of the current literature makes it is clear that there is no reliable answer. However, consistencies begin to become noticeable when education is added to the analysis though a few discrepancies still remain. For example, while some studies found significant sex differences among those who are highly educated, others found none. Among these are Carlton, Nelson and Coleman (2000) and Esposito and Basow (1995), who did not find any significant differences in attitudes toward abortion between male and female college students. Thus, the zero order relationship was replicated when education was controlled for.

Conversely, other studies have found that education has an effect on the abortion attitudes of men and women. “The positive association between levels of education and abortion attitudes is a regular finding” (Patel and Johns 2009, p. 496). Likewise, higher education has been a consistent predictor of support for reproductive choice (Walzer 1994). In fact, in her review of past research, Finlay (1981) noticed that the most important factor in explaining a person’s attitude towards abortion was educational attainment. Researchers that have studied this area of interest agree that education has a profound impact on general abortion attitudes, but only a few studies provided information on exactly how education affects abortion attitudes of males and females separately.

There were two studies that did find education to have a different effect on the abortion attitudes of both sexes. In one study the effect of education had a stronger positive relationship with women’s abortion attitudes than with men (Walzer 1994). Education has proven to be a key control variable, as the next discussion will illustrate.

When Finlay (1981) compared male and female college students’ responses on whether abortions should be legal for any reason, a division between the sexes was clear. In fact, the percentage difference was 13.7, a moderate degree of association. She puts forth a solid argument why this difference exists. She theorized that male and female college students considered different factors when deciding their position on abortion and these differences explain the division in their abortion attitudes. Her results indicated that males’ attitudes toward abortion are less humanitarian, simpler in structure, and seen less as a women’s right issue than with females. They are also unlike females in that are less likely to take into account philosophical and moral questions about when human life begins and if a human has the right to end the life of another human. Therefore, females are related to a broader set of “attitudinal

variables” and didn’t base their abortion attitudes primarily on sexual and non-sexual conventionality like the males did (Finlay 1981). It is important to note here that it was not very clear in Finlay’s analysis how education changes the way women and men come to decisions regarding abortion nor does it account for why women are more supportive of abortion.

Overall, based on the diverse results of past research, there is no clearly established link between sex and abortion attitudes. It has not been determined that there is an association between the two variables except by one study noted earlier. However, many of the studies used sex as only one of several, and sometimes many, independent variables in a multivariate analysis. To reiterate what was suggested earlier, studies examining only sex as the independent variable may generate different results.

In my research I expect to find that sex has no noteworthy effect on abortion attitudes. In other words, my research will simply replicate the results that were found by the majority of past studies previously discussed. However, when I examine the relationship between the two variables under the control variable, education, I anticipate finding education to have a positive effect on support for abortions for both males and females, with females being more greatly affected than males. Lastly, it would not be surprising to learn that the effect gains strength as the degrees of education increase. I propose that this social trend will occur because of an inverse relationship between education and the desire to have children. Education affects the social role of a woman more than it does for a man. Whereas the socially expected roles of men are generally the same whether or not they are educated, education provides women with more choices in what roles to adopt. Instead of having no other choices but those of domestic roles, educated women have the skills and knowledge acquired through schooling to pursue a career

and/or further their education. The more education women has, the better the career opportunities.

When educated women choose take the career route they will desire children less because raising children can interfere with career goals. When men have children it typically doesn't interfere with career goals as much as it impacts a woman's career because they aren't socially expected to be the primary caretakers of children. Therefore, education will produce a gap between women and men's positive support for abortion, with women having higher levels of support than men.

Data and Methods

I. The Data/Subjects

The data for the analysis are extracted from the 2006 subset of the General Social Survey. The GSS is a cumulative file of various surveys collected from 1972 and onwards regarding respondents' opinions on numerous social issues. The GSS is conducted by the National Opinion Research Center using a national probability sample. The sample is generalizable to all non-institutionalized, English- and Spanish-speaking persons 18 years of age or older living in the United States. The response rate for the survey was approximately 71 percent. The total sample size for the 2006 GSS was 4,510 respondents.

Subsample Characteristics: The subsample used in this study was formed from the 2006 GSS. The subsample excludes respondent which did not answer all three questions pertaining to their sex, abortion attitude, and educational degree. If at least one survey question was not answered then that respondent was discarded from the subsample and not considered in the analysis. The total size of the subsample is 1939 consisting of 828 males and 1,111 females.

II. The Measures

Dependent Variable: The conceptual dependent variable used in this analysis is abortion attitudes. The operational definition of abortion attitudes is the approval/disapproval of legal abortion for any reason. The exact phrase of this measure is: “Please tell me whether or not you think it should be possible for a pregnant woman to obtain a legal abortion if the woman wants it for any reason”. The indication that a person does support legal abortion for any reason is the response “yes” and a “no” indicates disapproval of legal abortion for any reason. This simple, broad measure will encapsulate the general attitudes towards abortion which can be very useful if one is not interested in knowing all the specific attitudes that exist in the long continuum of abortion attitudes.

Coding the dependent variable: The response answer “yes” is coded as “1” and “no” is coded as “2”.

Independent Variable: The conceptual independent variable used in this analysis is sex. The exact question that will be used to measure the sex of survey respondents is “sex” in which respondents indicate whether they are male or female.

Coding the independent variable: The response answer “male” is coded as “1” and female is coded as “2”.

Control Variable: The conceptual control variable used in this analysis is education. The operational definition of education is degrees obtained. Specifically, the exact survey question to be asked of respondents is: “Degree”. The response categories are: “less than high school, high school, associate/junior college, bachelors, graduate, don’t know, and no answer”. Education is justifiable as acting as the control variable because it has been found to have an effect on the

relationship between sex and abortion attitudes in published studies, such as Finlay's (1981).

Therefore, it has proven to be a useful and valid control variable in understanding what link there is between the independent and dependent variable.

Coding the control variable: "Less than high school" and "high school" are combined to form "High school or less" and is coded as "1". The remaining education measures are coded as such: associate/junior college are "2", bachelors is "3", and "graduate" will be coded as "4". Finally, the answers "No Answer Provided", "Don't know", and "Not Applicable" are discarded and not configured into the analysis as they do not provide useful data.

III. Hypotheses

H1: There is no significant difference in abortion attitudes of males and females.

H2: Education has an effect on the abortion attitudes of males and females

H3: Education has a stronger effect on support for abortion for females than for males.

Results

Tables 1, 2, and 3 provide the data used for the testing of the three hypotheses that this study is focused on and attempting to support:

Table 1: The Relationship Between Sex and Abortion Attitudes

Approval Of Abortion If A Woman Wants It For Any Reason	Respondent's Sex		Total
	Male	Female	
Yes	42.3%	39.1%	40.4%
No	57.7%	60.9%	59.6%
Total Count	828	1111	1939

Table 1 Description: The data in Table 1 represents the zero order relationship between sex and abortion attitudes. It shows the percentages of men and women that do and do not support abortion for any reason. Out of the 828 male respondents, 42.3 percent support abortion and 39.1 percent of the 1111 female respondents are supportive.

Table 1 Discussion: Table 1 shows that the percentage difference between males and females in support of abortion is 3.2. This finding suggests that the level of association between sex and abortion attitudes is low. The results of the chi-square for this data indicate the same conclusion. The chi-square value for Table 1 with one degree of freedom is 2.025 which represents a significance level of .155. Thus, it can be safely claimed that sex does not have an effect on abortion attitudes based off the data which showed an almost equal percentage of men and women supporting abortion and a confidence level of only 85%.

As follows, hypothesis one is supported. Thus, the finding in this portion of the analysis confirms those in the reviewed social science literature that examined the relationship between sex and abortion attitudes.

Table 2: The Relationship Between Education and Abortion Attitudes

Approval Of Abortion If A Woman Wants It For Any Reason	Educational Degree				Total
	High School or Less	Associate/Junior College	Bachelors	Graduate	
Yes	34.7%	45.5%	48.2%	62.6%	62.6%
No	65.3%	54.5%	51.8%	37.4%	37.4%
Total Count	1266	165	334	174	1939

Table 2 Description: Table 2 illustrates the percentage differences in abortion attitudes of males and females across the four categories of education. The data in this table show that 34.7

percent of respondents in the subsample that have a high school degree or less approve abortion for any reason. Among those who indicated they have an associate or junior college degree, 45.5 percent support abortion. Among those with bachelor degrees, 50.3 percent support abortion and for the final degree category of graduates, 62.6 percent agree that women should get abortion for any reason.

Table 2 Discussion: Table 2 reveals that the amount of support for abortion increases as the educational degrees increases, even though it does not do so at even intervals. With those that support abortion, one percentage jump of 10.8 occurs between “High School or Less” and “Associate/Junior College”, and then another jump of 14.4 percent between “Bachelors” and “Graduate”. These jumps suggest that within college education particular degrees affect abortion attitudes to different extents. None the less, support for abortion does gradually increase with higher educational degrees for both males and females.

Table 2 also shows that 34.7 percent of respondents with high school or less supported abortion while 62.6 percent of respondents with graduate degrees support abortion. Just between high school or less and graduate degrees the difference in support for abortion is 27.9, implying a high-moderate degree of association between the two educational degrees and abortion support. The results of the chi-square for this data also provide an example as to the strength of the relationship between the two variables. The chi-square value for Table 2 with three degrees of freedom is 63.161 which indicates a statistically significant difference at the 100 percent confidence level ($p < 0.000$).

Based off the percentage comparisons and the significance of the chi-square value, the second hypothesis is supported. The results also confirm what previous studies have found, that education does have an effect on abortion attitudes of males and females. As just demonstrated,

the effect is a positive one: as the level of degrees increase so does the level of support for abortion.

While the first two tables provide important information for our analysis it is Table 3 that is most revealing of the dynamics in the relationship between sex, education, and abortion attitudes.

Table 3: The Relationship Between Education and Abortion Attitudes Controlling for Sex

Respondents Sex	Approval of Abortion if A Woman wants it for any reason	Educational Degree				Total
		High School or Less	Associate/Junior College	Bachelors	Graduate	
Male	Yes	37.1%	42.9%	50.3%	61.5%	42.3%
	No	62.9%	57.1%	49.7%	38.5%	57.7%
Total Count		533	70	147	78	828
Female	Yes	32.9%	47.4%	46.5%	63.5%	39.1%
	No	67.1%	52.6%	53.5%	36.5%	60.9%
Total Count		733	95	187	96	1111

Table 3 Description: Table 3 displays the multivariate distribution of the independent, dependent, and control variables. Its purpose is to reflect the partial relationship of sex and abortion attitudes under the influence of education. Simply, it demonstrates how education affects the individual sexes in their support for abortion. As discussed in the literature review, past studies have demonstrated that education is a useful control variable in that it produces a clear relationship between sex and abortion attitudes. Within the confines of education males and females have exhibited different attitudes towards abortion and so sex has been selected to be part of the analysis in this study. According to the data in Table 3 the percentages of male respondents that support abortion for any reason, in accord with the chronological order of the

degrees beginning with high school or less, are: 37.1, 42.9, 50.3, and 61.5. Using the same strategy for females, the percentages of respondents that support abortion are: 32.9, 47.4, 46.5, and 63.5.

Table 3 Discussion: The data in Table 3 show that for males and females support for abortion increases as educational degrees increase. There is clearly a positive effect on abortion attitudes for both sexes when education is controlled for. The effect is different for the distinct sexes, however. Looking at males, between the lowest degree and highest degree, support by males increases 24.4 percent whereas for females the amount is 30.6 percent, which is 6.3 percent greater than the increase for males. Thus, education has a stronger effect on abortion attitudes for females than for males.

Accordingly, hypothesis three is supported by this observation. An additional support mechanism for H3 was provided by running a Pearson's chi-square¹. For females a chi-square value calculated for three degrees of freedom was 43.069, corresponding to a significance of 0.000. For males, the chi-square value for three degrees of freedom was 21.530, corresponding to a significance of 0.000 as well. It can be concluded that with almost 100 percent confidence any variation in the data which represents the relationship between sex, education, and abortion attitudes was not due to sampling error.

Summary

The findings in this study lead to unreasonable doubt as to the effect of sex on abortion attitudes and the effect of education on abortion attitudes of males and females. Sex was found to have no significant effect on abortion attitudes. Education was found to produce a difference in abortion attitudes of males and female, with education having a stronger effect on support for abortion with females. However, support for abortion increased as educational degrees increased

for both sexes. The findings supported all three hypotheses of this study. Furthermore, they mirror the results of prior studies which have examined the same relationships. The findings may indicate that education is related to how people perceive women's rights as abortion attitudes are particularly reflective of women's rights. This study only uses one measurement of abortion attitude and does not take into account the numerous factors that affect one's abortion attitude. Thus, a study that looks at more variables and measures of abortion attitudes may result in a more thorough analysis and accurate conclusions.

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ⁱ Due to the nature of the statistical software (SPSS) used to calculate the chi-square values, in order to obtain the correct significance of the data, the independent and control variables were switched when the chi-square test was run.