

What difference does it make? women's autonomy and power and use of contraception in Mexico

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1. INTRODUCTION

The main purpose of this work is to analyze the relationships between two indicators of women's empowerment -women's decision-making power and women's autonomy- and the use of contraception among Mexican women.

During the last four decades the spread of contraception use in Mexico has occurred in a very accelerated way, mainly after important changes in the population policies and the expansion of family programs during the seventies. By 1976 only 30% of married women used a contraceptive method. In 1999 the estimated percentage of married women using contraception was estimated at about 70% (Mojarro and Zúñiga, 1999).

Many processes have influenced today's relatively general use of contraception in Mexico. But what role are women's decision-making power and their autonomy within the household playing in their use of contraception? Women's empowerment process has proved to be a central factor in the achievement of many demographic and social desirable goals, such as enhancement of women's control of their own lives, improved women's and child health and fertility reduction in numerous countries (Riley, 1997; Jejeebhoy, 1995; Caldwell & Caldwell, 1993; Mason, 1993, Das Gupta, 1990). In the particular case of the relationship between women's empowerment and use of contraception, previous studies in other countries have documented a positive relationship (Kishor, 1995; Kishor, 1999; Kritz, et al, 1997; Mason, 1999). However, in the Mexican case, this is still an unexplored dimension.

This paper intends to fill this gap in Mexican research and to contribute to the understanding of the numerous interconnections between women's empowerment and population change.

2. DATA AND METHODS

The data used in this paper comes from the Mexican 1995 National Survey of Family Planning (*Encuesta Nacional de Planificación Familiar 1995*, ENAPLAF 95). This survey included questions related to wife's autonomy and decision-making power in the family along with information on women's fertility and use of contraceptives, that allows us to explore the relationship between women's empowerment and contraception in the Mexican case.

The 1995 National Survey of Family Planning includes data for 19 of the 32 Mexican states, but it was mainly concentrated in 9 poor states: Chiapas, Guanajuato, Guerrero, Hidalgo, México, Michoacán, Oaxaca, Puebla and Veracruz. The final sample of households includes information on about 55,268 individuals and, of them, 12,720 women, between the ages of 15 and 54, who were interviewed in more detail, with a second questionnaire. Additionally, the composition of this sample is mainly rural (60%).

The analysis put forth in this work refers exclusively to the nine poor states mentioned above since they account for 90% of the sample size, and the samples corresponding to each of the other states are very small. We refer our analysis only to married women surveyed in those nine poor states: 7,010 individuals. Their basic characteristics are summarized in Table 1.

Table 1 about here

The main purpose of this work is to analyze the relationships among women's decision-making power, women's autonomy and use of contraception among Mexican women. In order to do this we first define women's probability of being in need of contraception, and the effects that women's empowerment indicators have on it. Following that we estimate for those women in need of contraception, their probabilities of using contraception, and the effects of women's decision-making power and women's autonomy indicators on it. Logistic regression analysis was used in both estimations. Finally, some additional aspects of the use of contraceptives (reasons for using it and type of method used), as well as the reasons for which some women in need do not use contraception, are also explored looking always for the relationships among these aspects and women's empowerment.

By wife's decision-making we refer here to women's ability to express their opinion and influence on family decision processes, while the indicators for wife's autonomy are in reference to married women's capacity of taking initiatives and actions without asking for their partners' approval.

It is important to mention that women's decision-making power and women's autonomy are two intrinsically linked dimensions of what is called women's empowerment. Both share some responsiveness to certain common micro and macro determinants, like

female paid work, education or region of residence. Yet they may also demonstrate differentiated grades of responsiveness to those determinants as well as differentiated paces of change (Casique, 1999). According to that, it is reasonable to expect that women's autonomy and women's power might have differentiated effects on women's contraceptive use. For that reason, throughout the analysis we intend not only to identify the effects that these two indicators of women's empowerment may have on the dependent variable, but also to distinguish any possible difference occurring between their independent effects.

3. WOMEN'S DECISION-MAKING POWER AND WOMEN'S AUTONOMY INDICATORS.

As an indicator of wife's power, we refer to her role in the family decision-making processes. The survey included five questions regarding who in the couple (the husband, the wife or both) makes decisions about some family-life issues: 1) how many children to have; 2) how to rear them; 3) what daily expenses should be performed; 4) what relatives or friends should be visited and 5) when the couple would have sex. (see table 2).

Table 2 about here

Both members appear as responsible for the decisions made in about 70% of the cases. This figure suggests that the family decision-making process is largely a couple process, in the sense that mostly the decisions appear as made conjointly for both members¹. The frequency distribution also illustrates that a woman's decision-making power differ across topics (table 2), with more wife's influence regarding children and daily expenses and she being less influential regarding relatives/ friends to visit or when having sex.

Assuming that each answer category represents a different level of wife's power, it was assigned a value of 1 if it is the husband alone who makes such a decision, a value of 2 when the couple together makes the decision, and a value of 3 when it is only the wife who makes the decision. The assumption here is that a woman deciding solely is more powerful than a woman deciding conjointly with her husband. Such presumption is highly debatable,

¹ The questions about decision-making power in this survey were formulated in terms of "Who decides about..." A different picture would probably appear if the questions were made in terms of "Who has the last word about..." (Casique, 1999).

but given the high concentration of answers in the category of “both” (around 70%), the attribution of an intermediate level of power to those women looks more realistic than assuming that this category represents a high level of power. Additionally, it seemed important to distinguish between women deciding solely and women deciding conjointly, not only because it allows more variability in the decision-making power variable, but mainly because some qualitative evidence for the Mexican case points out that shared decisions most of the time refer to a shared expression of opinion but very unequal capacity of influencing the final decision (Casique, 1999).

Once the validity of grouping the five indicators of women’s power in a global measure was checked (Cronbach-alpha value = 0.7808), a Decision-making Power Index was estimated by simply adding the values of each of the five variables about decision making power to each woman. This Decision-making Power Index ranges from 5 to 15: 5 for women whose husbands make all decisions alone and 15 for women who decide solely about the five issues. The distribution of the sample on that index is shown in Table 3. The reduction of sample size stems from exclusion of those cases that had no information for one or more of the five variables examined.

Table 3. Distribution of Married Women by Decision-making Power-Index Value.

- Power	Index-Value	Frequency	Percent	Cum. Percent
	5	312	5.0	5.0
	6	122	1.9	6.9
	7	256	4.1	11.0
	8	452	7.2	18.1
	9	805	12.8	30.9
	10	3364	53.4	84.3
	11	613	9.7	94.1
	12	224	3.6	97.6
	13	92	1.5	99.1
	14	32	0.5	99.6
	15	26	0.4	100.0
+ Power	Total	6298	100.0	

Most women scored 10 points, an intermediate value in the Decision-making Power Index, which is a direct result of the fact that on average most women reported making decisions jointly with their husbands. However, it should be noted that just a few women

scored more than 11 points. In other words, women are more concentrated in the first tail of the power distribution, with 24.10% of them having a low level of power (5 to 8 in the index), while only 5.44% of them scored values corresponding to high power (12 to 15 in the index).

The 1995 National Survey of Family Planning included nine questions referring to whether or not the wife needs her husband's permission to do some specific activities: going outside alone, going outside with children, deciding about daily expenses, visiting friends, visiting relatives, working, studying, using contraceptives and participating in community activities.

For each of these variables there are two possible values: 0 if the woman asks for her husband permission and 1 if she does not. The assumption is that those women who do not require their husband's authorization for a particular activity are autonomous in that area, while those who require it are not autonomous. A first look at Mexican married women's autonomy is presented in Table 4. In general, women's level of autonomy is quite low, considering that the percentage of women asking for their husband's authorization varies from 61 to 77 percent.

Table 4 about here

There are important variations in wife's autonomy by type of activity. Going out alone appears as the activity for which wives are less autonomous, given that a 77 % of them require their husband's permission, while making daily expenditures appears to be the activity in which wives are more autonomous. For the purpose of this paper, let's note that a 68% can not use contraceptive methods without asking for their husband's authorization.

By adding the information concerning women's autonomy in each of the nine dimensions we created an index of women's autonomy, which provides a proxy of her global level of autonomy relative to her husband. This index values range from 0 to 9, representing 0 the case of a woman who needs her husband's authorization to perform each of the nine activities, while 9 represents the case of a woman who does not ask her husband's permission for any of the nine activities. The nine variables used in the autonomy index have a high level of cohesiveness (Cronbach-alpha value =0.77).

Women's distribution in this index shows that in general, Mexican married women do very poorly in terms of autonomy. As can be seen in Table 45% of the women scored 0, and two thirds of them scored 3 or less. The total number of cases was reduced to less than half (from 7,010 to 2,928), since those cases that had missing information in any of the nine variables involved were deleted.

Table 5. Distribution of Married Women by Autonomy-Index Value.

	Index-Value	Frequency	Percent	Cum. Percent
- Autonomy	0	1327	45.32	45.32
	1	260	8.88	54.20
	2	199	6.80	61.00
	3	176	6.01	67.01
	4	139	4.75	71.76
	5	140	4.78	76.54
	6	134	4.58	81.11
	7	93	3.18	84.29
	8	90	3.07	87.36
	9	370	12.64	100.00
+ Autonomy	Total	2928	100.00	

4. WOMEN'S DECISION-MAKING POWER AND AUTONOMY AND THE NEED FOR USE OF CONTRACEPTIVE METHODS.

The use of contraception by itself does not necessarily mean a benefit or increase in women's control of their own lives: its benefits are in direct connection to the need for using them. In other words, the estimation of the use (or not use) of contraceptive methods is meaningful as long as it is in reference to a population in need of them (Kishor, 2000; Westoff and Ochoa, 1991; Boulier, 1984; Bongaarts, 1994).

Which women can be defined as in need of contraception? The criteria for defining women in this status is given by their current fecund status, their fertility desires, and the timing wanted for childbirth (see Kishor, 2000; Westoff and Ochoa, 1991). Among those women who are not currently pregnant or amenorrheic, those who do not want another child (or are undecided), and those who want another child but at least after two years are considered in need of contraception. Those women wanting a child within two years are defined as not in need. Referring to pregnant women, we defined their need status in terms of their desire of having more children after the one they are currently expecting (the

survey does not provide information about the wantedness of the current pregnancy). Finally, for those amenorrheic women, their need status is determined by the intended (or not) character of their last pregnancy. Infecund and menopausal women are assumed as not in need and were excluded of the regression analysis. Figure 1 summarizes all these criteria.

Figure 1 about here

Relevant to distinguishing contraception use by women's need status, we estimate, as a first step, women's probability of being in need of using contraception. Following that we estimate, for those women identified as in need of contraception, their probability of being currently using any contraceptive method. In both regression analyses some individual variables are used as control variables: woman's age, woman's education, husband's education, number of children, years of marriage, woman's work and region of residence. In the regression for use of contraception, an indicator of the husband's agreement with contraceptive use is added as a control variable. The mean values of these independent variables for the different groups of women, defined by their potential need status and their use of contraceptives, are presented in table 6.

TABLE 6. MEAN VALUES OF VARIABLES INCLUDED IN THE REGRESSIONS BY POTENTIAL NEED STATUS AND USE OF CONTRACEPTION

	Potential need status		Met Need	
	Not in need	In need	No using contraception	Using contraception
CONTROL VARIABLES				
Woman's age	33.50	33.10	32.16	33.59
Woman's education (years)	4.92	5.03	3.89	5.62
Husband's education (years)	5.70	5.95	4.71	6.59
Number of children	3.78	4.09	4.34	3.96
Ideal number of children	4.06	3.84	4.65	3.44
Years of marriage	13.14	13.50	12.94	13.79
Work	0.26	0.29	0.24	0.32
Urban	0.35	0.40	0.26	0.47
Husband agrees with contraception	0.55	0.69	0.45	0.82
EXPLANATORY VARIABLES				
Index of decision-making power	9.10	9.42	9.07	9.60
Index of autonomy	1.94	2.36	1.49	2.82

Table 7 presents the results of the logit regression analysis estimating variations in women's need status by effect of their decision-making power and autonomy levels. Both dimensions of women's empowerment produce significant variations in the need status of women. When added separately to the models, both indicators of women's empowerment produce a significant improvement in the base model, being greater the improvement -in terms of reduction of $-2 \text{ Log_Likelihood}$ value- when the index of power is added to the model (model 2) than when the index of autonomy is added (model 3). Nevertheless, when both indicators are added together to the base model (model 4), the effect of the decision-making power index is no longer significant. In attention to that we tested for the significance of an interaction between the two indexes in this regression but it showed to be non-significant. Therefore we simply interpret these results to indicate that, for this sample of women, the autonomy indicator has a more consistent and definite effect on their probability of being in need for use of contraceptives and accounting for the possible effects of women's decision-making power on this aspect.

Table 7 about here

A peculiar result found is that it is not women's education but husband's education (7 years or more of education) which has a significant effect on women's probabilities of being in need of contraception (model 1 and model 2). However, such significance disappears when the autonomy index is added to the models (model 3 and model 4). This finding suggests that the women's autonomy indicator captures the effect that otherwise husbands' education would have on the dependent variable.

Urban residence and number of children have also positive and significant effects on the probability of being in need of contraception. Woman's age (particularly after 45 years) is also a significant predictor of women's probabilities of being in need.

Whether the woman works or not, and the marriage duration appear as not affecting significantly woman's probability of being in need of contraception.

5. WOMEN'S DECISION-MAKING POWER, WOMEN'S AUTONOMY AND USE OF CONTRACEPTIVE METHODS: MET NEED.

Among women who are in need of contraception, those currently using contraceptives are considered to have met need, while those who are in need of contraceptives but are not currently using them are considered to have unmet need (Kishor, 2000; Westoff & Ochoa, 1991).

Table 8 about here

Table 8 presents the results for the estimation of women's probability of current use of contraceptives (among women in need), and the effects of their autonomy and their decision-making power on that. It can be observed that both indicators of women's empowerment, the index of decision-making power and the index of autonomy appear as positive and significant factors increasing women's probabilities of using contraception. The improvement in the value of -2 Log Likelihood from model 1 is larger when the autonomy indicator is added to the model (model 3) than when the indicator of decision-making power is included (model 2). Additionally, the effect of the index of decision-making power shows some reduction in its level of significance and magnitude when the indicator for women's autonomy is added too (model 2 vs model 4). These results suggest us that it is autonomy the dimension of women's empowerment that shows a more robust effect on the probability of women using contraceptive methods, but both aspects would be significant. The interaction term between these two indexes was tested, but it was not significant.

The results also indicate that women's age has a significant effect on the use of contraception for women younger than 25, who are 33% less likely to use contraceptives than women between 25 and 34 years (reference category). Women's years of education has a positive and highly significant effect: women with 7 or more years of education are about 71% more likely to use contraception than women with only 1 to 3 years of education (model 4). Husband's education is also significant, but only when it is 7 or more years of education. An education level of 4 to 6 years of education is significant in the first three models, but when both indicators of women's empowerment are included in the model it is not longer significant (model 4).

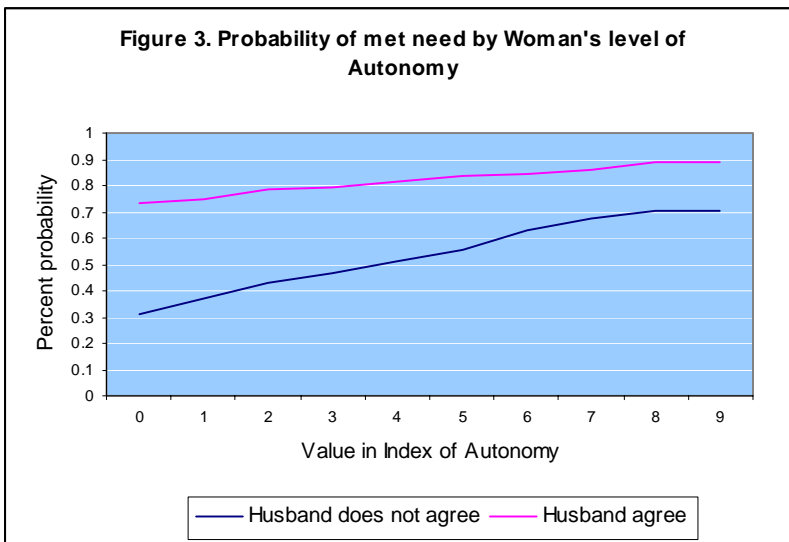
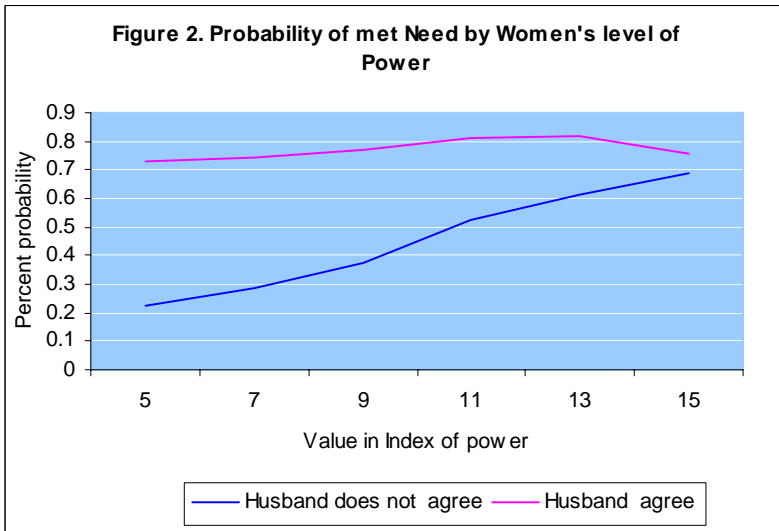
In contrast to predicting women's potential need status, the use of contraceptives appears not to be significantly affected by number of children, but instead, by years of marriage. Each additional year of marriage would increase the likelihood of current use of contraceptives by 3%.

Women's economic activity does not have a direct effect on their current use of contraception. However, residence in an urban area has a robust effect on women's likelihood of using contraception: urban women are 64% more likely than rural women to be currently using some contraception.

Finally, the most striking effect corresponds to the indicator of whether or not the husband agrees with the use of contraceptive methods. This variable arises as the most significant one included in the regression: women whose husbands agree with contraception are about 5 times more likely of using contraceptives than those women whose husbands do not agree with contraception. In fact, the effect of this variable is substantially larger than the ones corresponding to the indicators of women's empowerment.

However, the effect of husband's agreement with contraception varies depending on women's level of autonomy and women's level of decision-making power, as both interactions were tested and found to be significant. The effect of husband's agreement with contraception is stronger among women with low autonomy and low decision-making power. When husbands do not agree with contraception but women's autonomy and decision-making power are higher, women's probabilities of having a met need substantially increases, as figure 2 and figure 3 show.

In sum, the above analysis point out that women's probability of being in need of using contraceptives is particularly affected by their level of autonomy, while women's probability of using contraceptives (when in need) is affected positively and significantly by the two dimensions of women's empowerment analyzed: their decision-making power and their level of autonomy



6. REASONS AND PREFERENCES. WOMEN'S DECISION MAKING POWER, WOMEN'S AUTONOMY AND THE RATIONALITY OF USING OR NOT CONTRACEPTIVES.

In general, for women in this sample, a higher level of autonomy increases their probability of being in need for contraception and a higher level of decision-making power and a higher level of autonomy increases their probability of using contraception (when in

need). But, could we then assume that those women who do not use contraception have a lower 'status' than those who use it?

On one hand the use of contraceptives does not have a universal meaning. That is, we could not conclude that all women using contraceptives are better off than all women who do not use them, in terms of decision-making power and autonomy, without exploring the rationality of each behavior. On the other hand, we understand that the meaning of a given level of autonomy and power varies across contexts, cultures and circumstances, and therefore it might be translated into differentiated attitudes and behaviors.

In terms of having a more complete picture of the relationships that are established between women's empowerment and their met (or unmet) needs of contraception, this section explores some additional aspects of women's use of contraception: their intentions when using contraception, their reasons for not using it (among those who are currently in need but not using any method) and their preferences for one type of method or another.

6.1 Reasons for using contraception.

In our sample of 7,010 women, 75% of them (5,282) were defined as in need of contraception. Of those women in need, 65.67% (3,468) are currently using some contraceptive. But why are they using contraceptives? Is there a difference in their motivation for using contraception by their levels of autonomy and decision-making power?

In general, women's use of contraception is motivated by two major factors: limiting the number of children to have or spacing of births. In our sample, limiting represents the reason for using contraceptives for 74.22% of women in need of contraception who are currently using it, while spacing stands as the reason for the other 25.78% of women in need who are currently using contraception.

If we check for differences in the distribution by women's decision-making power, it is possible to observe a general tendency: the percentage of women using contraceptives for limiting is larger among women with a high level of decision-making power (index power value 12 to 15) than among women with low level of power (index power value 5 to 8): 85.45% and 75.71% respectively (table 9). Similarly, the desire of limiting the family size as a motivation for using contraception increases as women's level of autonomy

increases, representing the reason for 72.63% of women with low level of autonomy (autonomy index value 0 to 2) and 77.32% of women with high level of power (autonomy index value 7 to 9) (table 10)

Table 9 and table 10 about here

These differences in the relative importance of one reason or another by women's level of power and women's level of autonomy are statistically significant. They suggest that the desire of limiting the family size is comparatively more important among women with high decision-making power and high autonomy than among those women with low autonomy and low decision-making power. But, limiting it at what size? Is there a difference in terms of ideal number of children by women's level of decision-making power and autonomy? The data point out that there are some significant differences when comparing the ideal number of children by women's level of decision-making power: it goes from a mean of 4.41 among women with a low level of power to 3.65 among women with a high level of power. Comparing the ideal number of children among women with different levels of autonomy shows the same tendency: the number goes from a mean of 4.23 among women with low autonomy to a mean value of 3.07 among women with high autonomy (tabulates not included). Therefore, we could say that more empowered women (higher level of decision-making power and higher level of autonomy) tend to use contraceptives in order to limit their number of children in a larger proportion than less empowered women. And they tend to limit this number of children at a smaller figure.

6.2. Reasons for not using contraception

We also analyze the reasons of those women who are in need of contraception but are not currently using any method, and the relationships among these reasons and women's level of power and level of autonomy. The bottom line is our understanding that the "illogical" situation of being –theoretically- in need of contraception but not using it might be, in certain situations, not illogical at all. In other words, it is important to distinguish those reasons that go against women rights of controlling their fertility and those other reasons that redefine women's potential need status or indicate a balance established by women between their fertility rights and other rights. And it will be basically

in the first group of reasons that increases in women's decision-making power and autonomy could make a difference, in terms of enlarging women's probability of meeting their needs of contraception.

Tables 11 and 12 summarize the different reasons given by women for not using contraception across different levels of women's decision-making power and autonomy. Although the trends suggested for the figures in both tables are similar, the differences in the percent distribution of reasons given among women with different levels of decision-making power were found as non-significant but those among women with different levels of autonomy are significant.

Table 11 and table 12 about here

Among the reasons given by women for not using contraception, there are two that appear to us as clearly limiting women's right to control their fertility: the lack of knowledge about contraceptive methods (what are they, how to use them or where to get them) and husbands' will against fertility control. As women have higher levels of autonomy, the percentage of them who do not use contraception because of these reasons reduces steadily.

At the same time, the percentage of women who do not use contraception because believe they don't need it (because never have sex, because husbands are temporarily away or because don't get pregnant easily) increases as autonomy level increases. These numbers might be suggesting that more awareness about the conditions on which women can omit the use of contraception might be associated with women's increases in autonomy.

6.3 Type of contraceptive method used.

Finally, let us examine the effects of women's level of power and women's level of autonomy on the type of method used by women. Among those women currently using contraceptive methods we can differentiate two main type of methods: traditional contraceptive methods (abstinence, withdrawal, and rhythm) and what we could call modern contraceptive methods, which accounts for all the other methods that reach higher levels of efficacy (condom, norplant, shots, pills, IUD, female sterilization or male sterilization). In our sample of women currently using contraception the modern methods represent 85% of methods used. This high figure results from the use of female

sterilization, which represents 45% of total methods used (53% of modern methods used). Therefore we find it necessary to distinguish additionally between the use of temporal modern methods and definitive modern methods.

In order to examine the effects that women's decision-making power and women's autonomy might have on the use of one of the three types of contraceptives defined above, we developed a multinomial regression model, in which the dependent variable is the type of method used, distinguishing three categories: traditional methods, modern-temporal methods and modern-definitive methods. The category of traditional methods is used as reference category.

Table 13 about here

Women's autonomy only has a significant effect on the likelihood of using modern-temporary methods, with an increase of 5% in the likelihood for each additional unit increase in the autonomy index. But women's autonomy has no significant effect on women's probabilities of using modern-definitive methods. Additionally, women's decision-making power does not affect significantly women's likelihood of using temporary-modern methods nor women's likelihood of using definitive methods.

The likelihood of using modern-temporary methods is higher as the number of children increases, the woman wants to space the births and the husband agrees with use of contraception. In fact, the effect of this last factor appears as highly significant, with a woman's likelihood of using this type of method being about 7 times higher compared to a woman whose husband does not agree with contraception use. Years of marriage reduces women's likelihood of using modern-temporary methods by about 5% for each additional year.

Finally, a very peculiar finding is that urban women are 30% less likely to use this type of method than rural women. Searching for an explanation of what we thought initially was an anomalous result, a quite extended practice was detected: the collocation of the IUD right after the birth of a child without previous solicitation of it by the women. Additionally this situation was more prevalent among rural women. In our sample, 843 women received an IUD right after the birth of their last child. Only 37.8% of them solicited this before the birth, while 15% accepted it during labor and 46% of them were told of it later or never

told. Of those that were told later, 56% were rural women. Here we are simply mentioning this apparently extended practice as a possible explanation for the particular finding in our regression, but evidently this problem requires a more profound investigation.

Only three factors show a significant effect on women's likelihood of using modern-definitive methods (sterilization): 4 to 6 years of education, using contraceptives for spacing births (which would reduce the likelihood of using this type of method as would be expected) and husband's agreement with contraception. This last variable again has a highly significant effect on the likelihood but its magnitude is not as high as it was on women's likelihood of using modern-temporary methods.

Originally we intended to examine one final aspect: the relationship that may exist among women's risk of having an unwanted pregnancy and women's power and autonomy. However, given the fact that we did not find a significant association between women's decision-making power and autonomy and the use of modern contraceptive methods, we do not have evidence to expect a differentiated risk of having an unwanted pregnancy by women's empowerment, associated to the type of contraceptive used. Two regression models were tested, one predicting the probability of an unwanted pregnancy while using contraception and another predicting this event without controlling by contraceptive use, yet neither of them pointed out a significant relationship between women's autonomy and women's power and the risk of having an unwanted pregnancy (estimation not showed).

7. CONCLUSIONS.

This paper confirms that women's empowerment is positively associated to women's need status of contraception and to women's use of contraception in Mexico. The two dimensions of women's empowerment analyzed in this work –women's decision-making power and women's autonomy- show significant effects in most of the diverse aspects of contraceptive use revisited here. Our results also confirm that the effects of the two indicators of women's empowerment on women's potential need status, on women's use of contraception and on type of contraceptive used are in fact different. In general women's autonomy shows a stronger effect on women's likelihood of being in need of contraception

as well as on women's likelihood of using a modern-temporal method than their decision-making power does.

Regarding women's likelihood of being in need of contraception, it is the indicator for women's autonomy the one that shows a more consistent and definitive effect, increasing the likelihood as women's autonomy is higher. The effect of women's decision-making power is only just significant when included alone, but such significance is faded when women's autonomy is included too, suggesting that concerning women's need status of contraception their autonomy indicator accounts for the effects of women's decision-making power.

For those women in need of contraception, both indicators of women's empowerment affect the likelihood of using contraception significantly, being the effect of women's autonomy slightly more robust. In the regression analysis another variable, included as control variable, emerged as having a quite heavy effect on women's likelihood of using contraception: husband agreement with contraception. Nevertheless the effect of this variable is substantially affected by women's level of decision-making power and level of autonomy: for women with high decision-making power and high autonomy the effect of husband agreement (or disagreement) with contraception is significantly smaller.

Among women in need of contraception currently using it, the desire of limiting the number of children (instead of spacing them) as the main reason for using contraception is shown in a larger proportion as women's decision-making power and women's autonomy are larger. Additionally, regarding the type of method used, only women's autonomy shows a significant effect on the likelihood of women using modern-temporal contraceptive methods, while their decision-making power doesn't seem to affect significantly. Women's likelihood of using a definitive method (sterilization) does not show a significant relationship with any of the women's empowerment indicators included.

Finally, among those women in need of contraception but not using any contraceptive methods, we find that those reasons given that apparently are opposed to women's exercise of their fertility rights -husbands' will against fertility control and women's lack of knowledge regarding contraceptive methods- show a significantly reduced prevalence among more empowered women.

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Table 1. Mexico (a), 1995. Married Women Characteristics.

Background Characteristics	Total (n=6,999)
Age Distribution	
15-19	5.8
20-29	34.3
30-39	33.0
40-49	20.7
50-54	6.2
Total	100.0
Mean Age	33.19
Education	
None	18.2
Primary	55.8
High School	23.2
University	2.8
Mas/PhD	0.0
Total	100.0
Mean Schooling	5.0
Marital Status	
Married	81.8
Cohabiting	18.2
Total	100.0
Children	
None	6.3
1-2	30.8
3-4	30.1
5 +	32.8
Total	100.0
Mean Children	4.0
Labor Force Participation	
Working	28.3
Non-working	71.7
Zone	
Rural	61.3
Urban	38.7
Total	100.0

Source: Encuesta Nacional de Planificación Familiar 95.

(a) Refers only to nine states: Chiapas, Guanajuato, Guerrero, Hidalgo, México, Michoacán, Oaxaca, Puebla and Veracruz

Table 2. Mexico(a), 1995. Women's Decision-Making Power

Who in the couple takes decisions about	
How many children to have	
Husband	15.74
Wife	5.85
Both	78.41
Total	100.0
How to Rear Children	
Husband	9.46
Wife	11.66
Both	78.89
Total	100.0
Daily expenditures	
Husband	19.47
Wife	16.36
Both	64.17
Total	100.0
Relatives/friends to visit	
Husband	19.58
Wife	5.66
Both	74.76
Total	100.0
When having sex	
Husband	24.07
Wife	2.41
Both	73.51
Total	100.0

Source: Encuesta Nacional de Planificación Familiar 95.

(a) Refers only to nine states: Chiapas, Guanajuato, Guerrero, Hidalgo, México, Michoacán, Oaxaca, Puebla and Veracruz

Table 4. Mexico (a), 1995. Women's Autonomy by activity.

Wife requires husband's permission to:	
Going outside alone	
Yes	76.75
No	23.25
Total	100.0
Going outside w/children	
Yes	71.73
No	28.27
Total	100.0
Making daily expenses	
Yes	60.53
No	39.47
Total	100.0
Visiting friends	
Yes	68.06
No	31.94
Total	100.0
Visiting relatives	
Yes	69.41
No	30.59
Total	100.0
Working	
Yes	69.62
No	30.38
Total	100.0
Studying	
Yes	72.03
No	27.37
Total	100.0
Using contraceptives	
Yes	68.11
No	31.89
Total	100.0
Participating in comm. act.	
Yes	75.99
No	24.01
Total	100.0

Source: Encuesta Nacional de Planificación Familiar 95.

(a) Refers only to nine states: Chiapas, Guanajuato, Guerrero, Hidalgo, México, Michoacán, Oaxaca, Puebla and Veracruz.

Note: these frequencies were estimated after deleting the missing cases, which represented a high proportion of the original total answers in the cases of working (39.9%), studying (47.9%) and using contraception (24.3%). Because of that, the total number of cases varies across activity.

FIGURE 1. GROUPS OF WOMEN IN NEED OF CONTRACEPTIVE USE

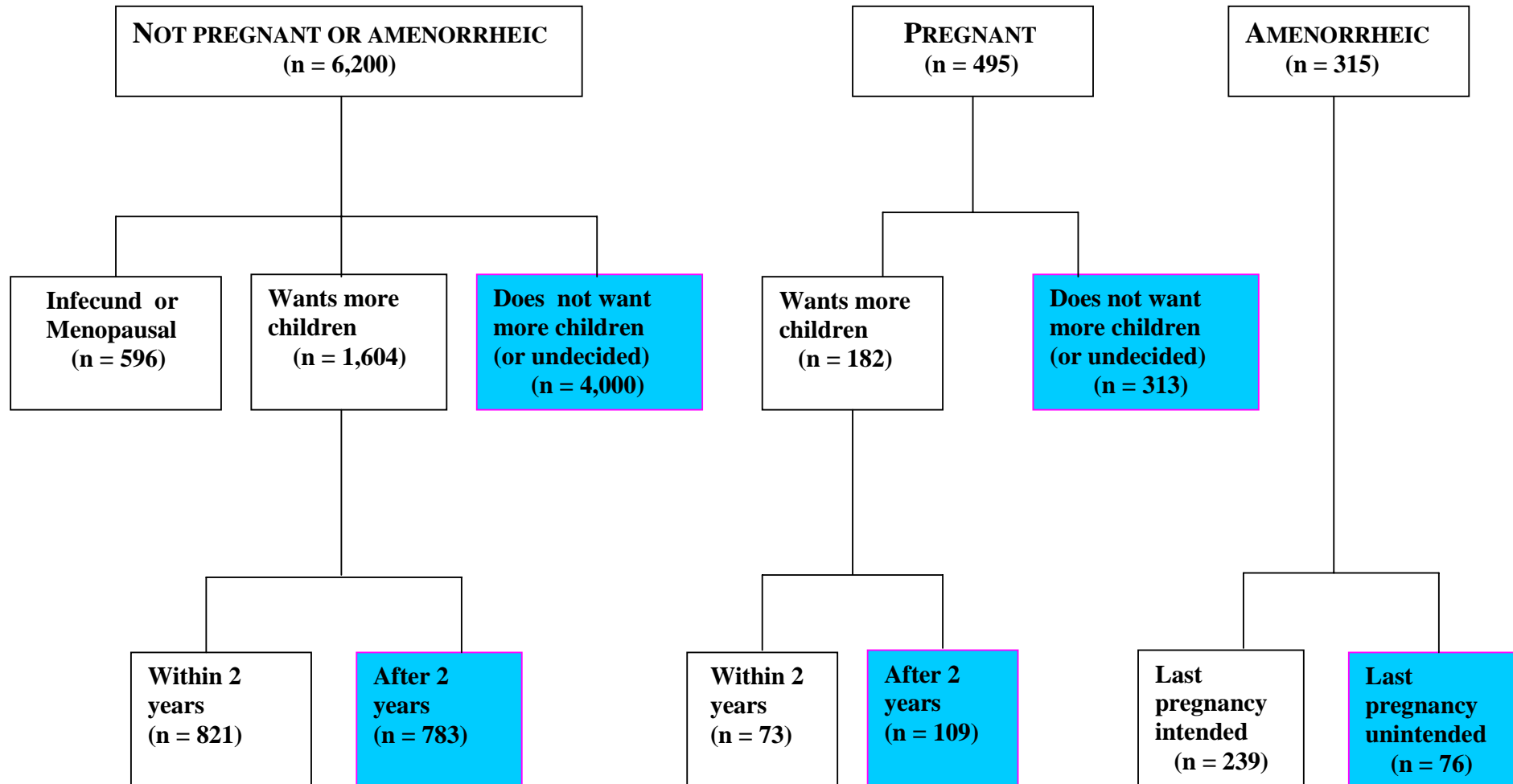


TABLE 7. LOGIT REGRESSION ANALYSIS: POTENTIAL NEED STATUS

Dependent Variable: Need Status				
	Model 1	Model 2	Model 3	Model 4
CONTROL VARIABLES				
Woman's age				
Less than 25	0.8122 *	0.8181 *	0.8389 *	0.8392 *
25 -34 (ref)				
35 -44	1.2972 **	1.3210 **	1.2739 *	1.3000 **
45 +	0.2481 ***	0.2572 ***	0.2403 ***	0.2499 ***
Woman's years of education				
None	0.9052	0.9280	0.9206	0.9399
1 - 3 (ref)				
4 - 6	1.0830	1.0596	1.0642	1.0468
7 +	1.0831	1.0397	1.0213	0.9949
Husband's years of education				
None	0.9379	0.9728	0.9359	0.9679
1 - 3 (ref)				
4 - 6	0.9668	0.9582	0.9572	0.9518
7 +	1.2300 *	1.2252 *	1.179	1.1844
Number of children	1.1484 ***	1.1447 ***	1.1526 ***	1.1486 ***
Years of marriage	1.0044	1.0027	1.0042	1.0029
Woman's work	1.0151	1.0201	0.9838	0.9936
Urban residence	1.2684 ***	1.2633 **	1.2021 **	1.2065 **
EXPLANATORY VARIABLES				
Index of Decision-making Power		1.0424 *		1.0318
Index of Autonomy			1.0468 ***	1.0404 **
N	6,675	6,624	6,675	6624
Df	13	14	14	15
-2LL	-3385.97	-3349.96	-3379.14	-3345.07
Difference in -2LL from Model 1	-	36.01 ***	6.83 **	40.9 ***
Difference in -2LL from Model 4	40.9 ***	4.89 *	34.07 ***	-

TABLE 8. LOGIT REGRESSION ANALYSIS: CONTRACEPTIVE USE AMONG THOSE IN NEED

	Dependent Variable: Contraceptive use			
	Model 1	Model 2	Model 3	Model 4
CONTROL VARIABLES				
Woman's age				
Less than 25	0.6401 ***	0.6484 ***	0.6682 ***	0.6710 ***
25 -34 (ref)				
35 -44	1.1845	1.1844	1.153	1.1562
45 +	0.8665	0.8654	0.8193	0.8228
Woman's years of education				
None	0.7431 **	0.7378 **	0.7657 *	0.7553 **
1 - 3 (ref)				
4 - 6	1.3260 **	1.2956 **	1.2948 **	1.2713 *
7 +	1.9327 ***	1.8421 ***	1.7681 ***	1.7149 ***
Husband's years of education				
None	0.9629	1.0013	0.9582	0.9939
1 - 3 (ref)				
4 - 6	1.2234 *	1.2111 *	1.2029 *	1.1985
7 +	1.4332 **	1.4024 **	1.3389 **	1.3281 *
Husband agree with contraception	4.8787 ***	4.8039 ***	4.8258 ***	4.7708 ***
Number of children	0.9935	0.9934	0.9976	0.9973
Years of marriage	1.0336 ***	1.0330 ***	1.0337 ***	1.0331 ***
Woman's work	1.1566	1.1413	1.0964	1.0897
Urban residence	1.7929 ***	1.7826 ***	1.6353 ***	1.6377 ***
EXPLANATORY VARIABLES				
Index of Decision-making Power		1.0698 **		1.0479 *
Index of Autonomy			1.0836 ***	1.0769 ***
N	5,140	5,123	5,140	5,123
Df	14	15	15	16
-2LL	-2736.76	-2721.99	-2720.28	-2708.59
Difference in -2LL from Model 1	-	14.77 ***	16.48 ***	28.17 ***
Difference in -2LL from Model 4	28.17 ***	13.4 ***	11.69 ***	-

TABLE 9. REASONS FOR USING CONTRACEPTIVES BY WOMEN'S LEVEL OF DECISION-MAKING POWER

Reasons for using contraceptives	Low power (Index value 5 - 8)	Medium power (Index value 9 -11)	High power (Index value 12 - 15)	Total Women
Spacing	24.29	27.06	14.55	25.78
Limiting	75.71	72.94	85.45	74.22

Pearson Chi2 (2)= 16.98

Pr= 0.000

TABLE 10. REASONS FOR USING CONTRACEPTIVES BY WOMEN'S LEVEL OF AUTONOMY

Reason for using contraception	Low autonomy (Index value 0 -2)	Medium autonomy (Index value 3 - 6)	High autonomy (Index value 7 -9)	Total Women
Spacing	27.37	24.47	22.68	25.84
Limiting	72.63	75.53	77.32	74.16

Pearson Chi2 (2)= 6.4190

Pr= 0.040

TABLE 11. REASONS FOR NOT USING CONTRACEPTIVES BY WOMEN'S LEVEL OF DECISION-MAKING POWER

Reason for not using contraceptives	Low level power (Index value 5 - 8)	Medium level power (Index value 9 -11)	High level power (Index value 12 - 15)	Total Women
Against own ideas	7.26	9.65	11.43	9.02
Against husband's will	7.05	4.14	1.43	4.88
Don't know methods	21.78	17.1	12.86	18.29
Wants more children	4.15	4.23	2.86	4.15
Health concerns	14.32	17.37	17.14	16.46
Pregnant/ amenorrheic	27.59	26.84	28.57	27.13
Don't need	17.84	20.68	25.71	20.06

Pearson Chi2 (14)= 20.24

Pr= 0.063

TABLE 12. REASONS FOR NOT USING CONTRACEPTIVES BY WOMEN'S LEVEL OF AUTONOMY

Reason for not using contraceptives	Low autonomy (Index value 0 -2)	Medium autonomy (Index value 3 - 6)	High autonomy (Index value 7 -9)	Total Women
Against own ideas	9.13	9.39	5.83	8.97
Against husband's will	5.66	2.45	1.94	4.96
Don't know methods	21.43	8.16	4.85	18.47
Wants more children	3.92	4.90	3.88	4.06
Health concerns	15.85	18.37	17.48	16.32
Pregnant/ amenorrheic	24.98	34.29	33.98	26.9
Don't need	19.02	22.45	32.04	20.32

Pearson Chi2 (14)= 56.97

Pr= 0.000

TABLE 13
MULTINOMIAL LOGISTIC REGRESSION: TYPE OF CONTRACEPTIVE USED

Dependent Variable: Type of contraceptive currently used.		
Comparison group: traditional methods		
	Modern-temporary	Modern -definitive
CONTROL VARIABLES		
Woman's age		
Less than 25	1.1791	0.6766
25 -34 (ref)		
35 -44	0.8434	1.0223
45 +	1.1887	2.2387 **
Woman's years of education		
None	1.1792	1.2737
1 - 3 (ref)		
4 - 6	0.9604	1.3831 *
7 +	1.1566	1.3184
Number of children	1.1283 **	1.0709
Years of marriage	0.9543 ***	0.9993
Woman's work	0.8062	0.9975
Urban residence	0.7100 **	0.8057
Reason for using contraception		
Spacing	1.2374	0.0067 ***
Stopping (ref)		
Husband agree with use of method	6.6974 ***	2.9158 ***
Index of Decision-making Power	1.0116	1.0088
Index of Autonomy	1.0505 *	1.0258
N = 3814		
Df = 28		
-2LL= 2744.42		
Pseudo R² = 0.2959		