

The impact of unequal gender relations on sexual and reproductive behavior of young women from different social classes in Brazil¹

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Abstract

We investigated how unequal gender relations decreasing young women's autonomy in different spheres of live affect their sexual and reproductive behavior. Using data from a survey with a sample of 648 young women between 15 and 24 years of age (292 were living in middle class neighborhoods and 356 were living in slums), we identified how the presence of control and violence from a partner, a low level of access to financial resources and a low degree of control over their sexuality reduced young women's probability of condom use and increased their chance of getting pregnant before 19 year of age. Even when controlling for young women's age, income and education, lower levels of autonomy were associated with a smaller probability of condom use and also with a higher prevalence of teenage pregnancy. Our results reinforce the importance of to continue to explore the connection between gender inequality and women's sexual and reproductive behavior and health.

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1. Introduction

In this work we investigate how unequal gender relations affect autonomy levels in different dimensions of young women's lives influencing on their sexual and reproductive behavior. We built autonomy indicators to identify how the presence of control and violence from partners and women's lack of control over different dimensions of their sexuality can have a measurable impact on women's sexual and reproductive health. For our analysis we use data from a survey from 2007: "Autonomy and vulnerability in the lives trajectories of young women from middle and lower classes in Belo Horizonte (Brazil)". For this survey we interviewed 292 young women between 15 and 24 years old living in a middle class neighborhood and 356 young women of the same age group living in slums in the same region of the city of Belo Horizonte (located in Brazil's southeast region).

Gender is understood here as a social construct that gives meaning to sexual dimorphism. In a broader sense, it can be comprehended as "a system of social, symbolic and psychic relations, in which men and women are differently positioned" (Haraway, 2007:93). Gender systems comprise the socially constructed expectations for male and female behavior, prescribing the division of labor and responsibilities between women and men and granting different rights and obligations to them (Mason, 1997). Gender system produces inequality between the sexes in power, autonomy, and well-being, typically to the disadvantage of females. In this sense, the concept of gender, incorporating the dimensions of power, exposes the asymmetries and the hierarchies (hierarchies in which women occupy a subordinate position) in the relations between men and women (Scott, 2007).

However, gender as a relational concept means it can not be thought only limited to male and female relations but also how the social construction of masculinity and femininity intercepts with other social relations (Moore, 1994). Masculinity and femininity may mean different things in different social contexts within the same society, so, in this sense, gender does not refer to men and women as fixed, polar opposites, but as a continuum whereas there are degrees of masculinity and femininity varying within different social contexts. In other words, gender inequality very much matters, but it is as relevant to take in consideration that in some contexts, other

differences, such as those produced by class and racial inequalities are all related, can add to or even overcome gender differences (Jayme, Neves, Chacham, 2009).

In the sphere of sexuality specifically, an extensive body of literature has showed that unequal gender relations between men and women tend to make difficult, if not impossible sometimes, for women to negotiate the frequency of sex and the use of contraceptives and condoms to prevent pregnancies and HIV and other sexually transmitted infections (STIs). It is also very evident that poor young women and girls are in a particularly vulnerable position, as many of them are fully dependent on their partner, especially when they have unplanned pregnancies and/or an early marriage (Gage, 2000). In the context of economic deprivation, the ability of adolescent girls and young women to negotiate whether sex will occur and whether condoms and contraceptives will be used may be further reduced.

In Brazil, these added vulnerability of poor women means that teenage pregnancy now is almost an exclusively lower class phenomenon (AQUINO at al., 2003, Heilborn at al., 2006, Bassi, 2008, Fontoura, Pinheiro, 2009). According the 2006 DHS, both teen pregnancy and early marriage (or cohabitation) being much more common in poor rural areas and urban slums in Brazil largest cities (Ministério da Saúde, 2009).

The only age group we find more HIV infection among females than males is for those between 13 to 19 years old, among 20 to 24 years old the numbers of men and women infected are about the same and for all other we have more males than females infected in Brazil. Again, poorer and less educated women are among those more vulnerable (Ministério da Saúde, 2009).

In our research we pursued a strategy of analyses that allowed us to investigate this complex relationship between unequal gender relation and social class inequalities, analyzing their effects on the sexual and reproductive trajectory of young women from different social backgrounds in Brazil. In order to achieve this goal we built autonomy indicators to evaluate the impact of gender inequality in different dimensions of young women's life, seeking to built analytical tools that permitted us to go beyond the macro indicators of gender inequality (of income, occupations and educational levels) traditionally used in quantitative analysis on this subject.

The use of autonomy indicators has been showed very useful in researches done in different countries to measure the impact of gender inequality in different areas of women's lives for both micro and macro levels of analyses. As many studies have

indicated, the increasing control of women over their own lives and over their access to material and social resources has been a central factor to improve women's and children's health condition in numerous countries (Riley, 1997; Jejeebhoy, 1995; Mason, 1993, Das Gupta, 1990). Autonomy can be considered a key element for achieving sexual and reproductive health: no amount of education can protect a woman from exposure to the HIV virus if she cannot negotiate safe sex. If she lacks autonomy she will not feel empowered enough to refuse sex or demand the use of condoms.

Autonomy has been defined as: "The degree of women's access to, and control over, material resources (including food, income, land and other forms of wealth) and to social resources (including knowledge, power and prestige) within the family, community and society at large" (Jejeebhoy, 2000: 205). The concept of autonomy relates to the extent women exercise control over their own lives within the family in which they live (Jejeebhoy, 2000). Based on this definition, Jejeebhoy (2000) created five dimensions of autonomy and selected indicators for each. They are: economic and child-related decision-making; mobility; freedom from threat from husband/partner; access to economic/social resources; and control over economic resources. In regard specifically to the reproductive and sexual sphere autonomy means, according to Sen and Batliwala (2000), whether a woman/girl can safely determine when and with whom she will engage in sexual relations, sexual health, regulate her fertility and safe childbirth. Lack of autonomy in the sphere of sexuality can thus be considered a risk to women's sexual health.

In our study we use some of those indicators proposed to analyze which autonomy factors are linked to young women's vulnerability to unplanned pregnancies and exposure to HIV/STIs (sexually transmitted infections) among both middle and lower class young women living in the same urban area of a major city in Brazil. The challenge we confronted was to build indicators of different dimensions of young women's lives that make sense within the social and cultural context of women belonging to urban middle and lower economic stratus in Brazil. After all, Brazil, as a western country, went through major cultural changes in recent decades, shifting traditional expectations of gender roles and behavior, although of much the old *machismo* that characterized Latin American societies remains.

Results from a previous research done in a slum area (o Taquaril) of Belo Horizonte in 2005 (Chacham *et al.*, 2007) were used to guide us in this process. That research also sought to build indicators of women's autonomy as a way to measure the

impact of gender inequality on her susceptibility to HIV/AIDS infection. The results showed an association of higher level of autonomy in different spheres with a lower level of vulnerability in young women's sexual and reproductive trajectories. Results that inspired us to continue this line of work in new researching now women from difference social classes, in a effort to understand how gender intersects with social class and race in different social context.

2. Research Design and Methods

Our research took place in the city of Belo Horizonte, the capital of Minas Gerais, a state located in the southeast region of Brazil, the richest and most developed area in the country, although strongly marked by social inequalities. Belo Horizonte has the third largest metropolitan area of the country with a population of over 3,500,000 inhabitants in 2000. The city is divided in nine administrative regions and the center-south region concentrates the most affluent neighborhoods in the city and also some of its poorest slums. We choose this region for the location of our research as it gave us the opportunity to compare the experience of young women from a vastly different social and economic background living in the same geographical and administrative area, sometimes in the same streets.

For the research we used of mix of quantitative and qualitative methods: surveys, focal groups and in-depth interviews. Here we present the analysis of our quantitative data. Fieldwork for the quantitative phase lasted a year, beginning on January of 2007 and ending on January of 2008. We performed two surveys in different moments: in the first one we interviewed 292 adolescents and young women (between 15 to 24 years old) living in middle class neighborhoods in the Center-south region of Belo Horizonte, between February and September of 2007. In the second one we interviewed 356 adolescents and young women (between 15 to 24 years of age) living in five slums areas located in the same region (Serra Complex, Barragem Santa Lúcia, Papagaio, Acaba Mundo and Querosene). This second survey happened between September of 2007 and January of 2008.

Sample size for each survey was calculated based in an estimation of the prevalence of teenage pregnancy for both groups. Our previous research in Taquaril (a slum in the east region of Belo Horizonte), we found a prevalence of teenage pregnancy of 38%, in 2005 (Chacham *et al.*, 2007). Data from the register of live birth (SINASC)

from 2005 indicated a prevalence of 3% of births for teenage mother who had children in private hospitals in Belo Horizonte (more likely to be utilized by middle and upper class women). These numbers were used as parameters of the prevalence of teenage pregnancy to be expected in both groups. We used the equation for probabilistic random sampling with a significance level of 5% to calculate our sample considering the number of females between 15 to 24 years old living in the neighborhoods and those living in slums in the center-south region of Belo Horizonte, according data from the 2000 Census.

Forty census sectors were randomly selected among middle class neighborhoods in the Center-south region and thirty census sectors were selected among “abnormal” sectors (as the slum areas are called for census purposes) and we counted the number of females between 15 to 24 years old living in each sector. Census sectors vary in size but each one contains approximately 300 household. After counting how many adolescents/female women lived in the selected sectors, we elaborated a list with the age and address of each young women counted in each sector. We randomly selected 12 names in each sector to be interviewed.

Our interviewers were undergraduate students of Social Sciences, trained and supervised by the researchers. The interviewers received the list with the 12 names and addresses and had to interview at least nine young women in each sector. Normally they were well received by the women and their families. Although the interviewers were instructed never to insist, the overwhelming majority of young women accepted to answer our questionnaire right away. We had some refusals but in most cases it was because a parent did not allow his daughter to participate. The most common obstacle found to do the interviews, especially among middle-class young women was to find them home or to them to find some time in their busy agenda (as most had multiple activities besides going to school) to be interviewed. Many of those interviewed in the slums area also had busy schedules during the week (working and going to school) but in general they could be found in the weekends.

Fieldwork took over a year from January 2007 to January 2008. Every adolescent/young woman interviewed was contacted at home and signed an informed consent form (this research was approved by the Ethic Committee of the Pontificia Catholic University of Minas Gerais). The interviews were done at any place the volunteer felt comfortable to talk – it was her decision. The interviews lasted on average about 45 minutes. At the end, we had interviewed a total of 648 women between 15 to

24 years old living in the slums and middle class neighborhoods of Belo Horizonte center-south region.

After the interviews, each questionnaire was thoroughly checked by one of the main researcher and a random sample of twenty percent of questionnaires was selected to be checked directly with the interviewed in order to confirm her answers to selected key questions. After the checking process, the answers from both the closed and open-ended questions were coded, entered into a database and analyzed using the Statistical Program for Social Sciences (SPSS 16.0). The statistic test chi-square was performed and correlations were accepted upon an approximate significance level of 0.05 or below.

The questionnaire utilized was based on a previous version used for the research in Taquaril (Chacham *et al.* 2007). The indicators of autonomy used there were inspired by the work of Jejeebhoy (2000) in India, who identifies five dimensions of autonomy and their respective indicators. In relation to the previous questionnaire, some questions were eliminated or rewritten based on the analysis of data produced by the research on Taquaril. Some questions referring to women's participation in labor market and domestic division of labor were incorporated to the questionnaire, according the model utilized by Araújo and Scalon (2005). In our questionnaire the following questions were utilized as indicators of the different dimensions of autonomy:

Autonomy	Indicators used in the study
Sexuality	If she: wanted to have her first sexual relationship; talked to partner about how to avoid pregnancy before first sexual intercourse; enjoys having sex; decides together with her partner about contraceptive use; finds hard to propose the use of condom; if partner ever refused to use condoms; if able to avoid or interrupt a sexual relationship if she wanted.
Mobility and access to social resources	The number of places a woman can go alone: to health centers, community centers, relatives' and/or friends' houses, shopping centers or to another city; if she has some activities for leisure; if she has access to TV, radio and books; if the women has a house key; curfew hours; if she can go out with friends, with any kind of clothes she wants to wear and if she can use makeup.
Authority related with the decision on child care / share of domestic work	If has the power to decide question related to discipline, child care, schooling, who takes care of children, who is the main responsible for domestic work and childcare; number of hours dedicated to domestic labor and who is responsible for each domestic task.
Control over economic resources	If has paid work and to control over how her own money is spent and how household money is spent; if she does not work outside home, if she has money for personal and household expenses; if she is free to buy objects for personal use and gifts; if she has a bank account

Freedom from control and violence from a partner	Whether she fears and/or is exposed to physical, emotional or sexual violence and abuse from a partner or other relative; if she has ever seen her mother being victim of domestic violence; if she feels she can avoid a sexual intercourse or interrupt if she wants; if she can safely demand the use of condoms.
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3. Results

3.1 Respondents Social and Economic Profile

The analysis of our social and economic data (presented in table 1) showed that the young women interviewed although living in the same region of the city (Center-South) presented a very heterogeneous picture regarding their social and economic conditions when we compare the residents from middle class neighborhoods with those who lived in slums in the same region.

Among slums residents, family monthly income for over 60% of them was concentrated between one to three minimum wages (between 300 to 800 dollars), with a medium monthly income of 450 dollars. With an average of seven persons in each household, that level of income means a daily income of two dollars *per capita*, just above the UN poverty level of one dollar a day per capita. In contrast, respondents from middle class neighborhoods had in average a monthly family income ten times higher: US\$ 4 500.00. With an average of four persons in each household, in this group the monthly income per capita was over a thousand dollars, disparity that reveals the economic abyss between these two groups that share the same neighborhood.

Another major difference found between the groups investigated was the number of female headed households present in each group. Most middle class respondents (51% of them) lived in households headed by their father, comparing to 31% among slums residents. Young women living in slums were much more likely to live in female headed households: 34% declared their mothers were the head of household and 4.5% declared they were the household heads. Only a quarter of middle class respondents declared their mother were the head of household and a very small number, 0.7%, declared they were the responsible for the household. Slums residents were also much more likely to live with a partner and to declare their partner was the household head (34% of those between 20 to 24 years old were living with a partner at the time of the interview).

TABLE 1
Social and economic characteristics of adolescents and young women interviewed in middle class neighborhoods and slums of the center-south region of Belo Horizonte, Brazil 2007.

Socio-economic and demographic characteristics	Respondents from middle Class Neighborhoods N=292			Respondents from slums (Favelas) N=356		
	Age group			Age group		
	15 to 19	20 to 24	Total	15 to 19	20 to 24	Total
Monthly family income¹						
Up to 300 dollars	0.0	0.0	0.0	15.9	16.1	16.0
From 301 to 500 dollars	0.8	2.0	1.4	41.3	34.2	38.3
From 501 to 1000 dollars	5.5	5.3	5.4	40.8	42.3	41.4
From 1000 to 3000 dollars	18.1	22.5	20.5	2.0	6.7	4.0
From 3000 to 6000 dollars	37.0	34.4	35.6	0.0	0.7	0.3
Over 6000 dollars	38.6	35.8	37.1	0.0	0.0	0.0
Head of household¹						
Father	72.3	57.9	64.7	41.3	21.3	32.8
Mother	19.0	30.3	24.9	40.1	26.0	34.2
Husband	1.5	2.0	1.7	7.7	34.0	18.8
Respondent	0.0	1.3	0.7	1.0	9.3	4.5
Stepfather	2.2	3.9	3.1	4.3	1.3	3.1
Other relative	5.1	4.6	4.8	5.8	8.0	6.7
Marital/status¹						
Married/united	0.7	3.2	2.0	12.6	36.7	22.7
Single/separated	99.3	96.8	98.0	87.4	63.3	77.3
Ever been married¹						
Yes	1.5	4.5	3.0	14.1	54.0	34.0
No	98.5	95.5	97.0	85.9	46.0	67.0
Race (color)						
White	64.2	73.1	68.9	14.5	12.7	13.7
Brown	28.5	15.4	21.5	62.3	52.7	58.3
Black	2.9	5.1	4.1	22.2	32.0	26.3
Asian	1.5	0.6	1.0	0.0	0.0	0.0
Religion						
None	23.5	40.6	32.5	20.4	19.9	20.2
Catholic	67.2	54.9	60.7	35.0	39.7	36.9
Pentecostal/protestant	9.2	4.5	6.7	44.7	40.4	42.9
Afro-Brazilian/spiritualist	13.1	14.7	13.9	0.5	2.7	1.6
Schooling level¹						
2 ^a to 5 ^a grade	0.0	0.0	0.0	2.9	8.7	5.3
6 ^a to 8 ^a grade	12.4	1.9	6.8	60.9	39.3	51.8
Uncompleted high school	38.0	2.6	19.1	28.5	14.7	22.7
Completed high school	44.5	25.0	34.1	7.7	34.0	18.8
College	5.1	70.5	39.9	0.0	3.3	1.4
Still in school¹						
Yes	98.5	82.7	90.1	65.7	11.3	42.9
No	1.5	17.3	9.9	34.3	88.7	57.1
Why left school? ¹	N=2	N=27	N=29	N=71	N=133	N=204
Graduation	50.0	66.7	65.5	14.1	28.6	23.5
To work	0.0	11.1	10.3	7.0	21.8	16.7
Pregnancy/take care of children	0.0	3.7	3.4	33.8	23.4	27.0
Did not like school	0.0	7.4	6.9	29.6	15.0	20.1
No/poor access to school	0.0	0.0	0.0	7.0	8.3	7.8
Others	50.0	11.1	13.8	8.5	3.0	4.9
Has paid work	14.0	50.6	33.6	25.2	49.3	35.4

Source: Autonomy and vulnerability in the lives trajectories of young women from middle and lower classes in Belo Horizonte, Brazil 2007. ¹ Correlations with p-value= or <0.05

In relation to marital status, only 1.7% of the young women living in middle class neighborhoods were married or living together with a partner at the time of the interview. Among slum dwellers, although most of them were single, we found a much

higher proportion of young women who have ever been married or lived with a partner (34% of them).

As expected, given Brazil's strong correlation between social class and race, with black people comprising over 70% of the population below poverty line, a much higher proportion (86%) of young women living in slums declared to be black or brown (pardo) when compared to those who lived in middle class neighborhoods (69%). Another significant point of differentiation between the two groups interviewed is the predominance of respondents who declared to belong to an evangelical (Pentecostal) religion among those who live in slums (43%) while only 37% of them declared to be catholic. Among middle class respondents Catholics are still the majority (61%) although a high number of them declared not to follow any religion (32%).

Another major indicator of class inequality was found in the educational levels of the two groups. The absolute majority of middle class adolescents (between 15 to 19 years old) were still in school and those not studying had already graduated from high school (most were preparing to go to college). Among adolescents who lived in the slums over a third of them were out of school, with 34% of them stopping going to school because they got pregnant or had to take care of their children. However, a significant proportion of them (29%) declared they dropped out of school because they did not like to study, data that appoints to the low quality of education offered by the public schools in the area.

The results also indicate that high school is the limit of schooling for the young women living in slums. They do not have access to a higher level of education. Among those between 15 to 19 years old, 44.5% of middle class respondents had already finished high school and 5% were already going to college, while only 9% of respondents in the same age group who lived in slums had finished high school and none were going to college. Among the 20 to 24 years old respondents from middle class neighborhoods, 70% were in college or had already gotten a college degree. In contrast only 3% of young women from slums were in college, although 34% of them had already finished high school.

Regarding the respondents relation to labor market we observed that young women who lived in slums started to work earlier than those from middle class neighborhood: 25% of teenagers interviewed in the slums were already working outside home compared to 14% of teenagers living in middle-class neighborhood. The proportion of those between 20 to 24 years working outside home was the same in the

two groups, around 50%. However, for middle class respondents the average monthly income was around 400 dollars and the most common occupation (for half of them) was to work as an intern (a temporary trainee paid position) in the same professional area they were studying for in college. Comparatively, slums residents had in average a monthly income of 180 dollars and over a third of them worked as maids or nannies (34%), followed by those working in retail (28%) and those as hairdressers or manicurist (16%). We can observe a strong concentration of slum residents in occupations who demand a low level of qualification and training, are poorly paid, have low job stability, precarious access to social and labor benefits and remote chances for professional mobility. Considering that over a third of them already had a high school diploma what constitutes a much higher educational level than the average in Brazil (around six years of schooling), this overwhelming concentration of poor women in the lower end of the service sector is a strong indicator of the limitation of this educational degree to promote a more qualified inclusion in the labor market, at least for young women.

3.2 Sexual an reproductive behavior and their social and economic determinants

In TABLE 2 we present data relative to sexual and reproductive behavior of adolescent and young women interviewed, according place of residence: if in middle class neighborhood or in slums of the Center-South region of Belo Horizonte. According to our data, the respondents living in slums had their sexual initiation almost an year earlier than middle class respondents. Their first sexual intercourse occurred in average before they were 16 years and the first pregnancy happened in average around 17 years of age. However the proportion of respondents who ever had sex is practically the same for both groups (around 70%) and middle class respondents tended to have a higher number of sexual partners. Pre-marital sex was the norm, only 3.5% were married at time, although for most of them (84% in both groups) the first intercourse occurred in the context of a stable relationship.

The most remarkable difference among the two groups was the prevalence of pregnancy and teenage pregnancy⁵. The prevalence of teenage pregnancy was of 29% among respondents who lived in slums and 1.7% among middle class respondents. More than half (57.4%) of slums' respondents had gotten pregnant at least once (and 15.5% more than once) while among middle class respondents only 5.4% had ever gotten pregnant and 1.7% have ever had a child. The chances of a young women from the slums to have gotten pregnant is approximately 15 times higher than for those living in middle class neighborhood and the chances of getting pregnant before 19 years old is 17 times higher for slums' residents. As we mentioned before, teenage pregnancy is almost an exclusively lower class phenomenon in Brazil.

The prevalence of condom use in the first intercourse was very high in both groups, with a lower proportion of declaration of use among slums' residents (88% to 70%). The main reason for using condom in both groups (77% to 62%) is to prevent pregnancy and HIV/STIs, and the main reason for not using it among middle class respondents was "trust in partner" (30%) and for slum respondents "did not have any condom" (20%) followed by "did not remember" (20%) and "got up in the moment" (17%). "Did not know it was important" was mentioned by 12% of them, but none of middle class cited it as a reason. However 12% of middle class respondents who did not use condom at their first time tried to do it but had it removed because it was hurting during penetration. Partner refusal was mentioned by only one respondent (a young woman from slums) as the reason for not using a condom.

In both groups we observed a significant decrease of condom use in the last intercourse compared to first, with 53% respondents from middle class and 44% from slums declaring condom use in their last intercourse. The decrease in condom use coincides with young women entrance in stable relationships, marital or not, in which those condoms use is replaced by other contraceptive methods. However middle class respondents were much more likely to have used another contraceptive in the last intercourse than young women from slums. Only 4.4% young women from middle class neighborhoods did not use any contraception in their last intercourse against 22% in the other group (36% of those were already pregnant at the time and over half forgot or did not have any at hand).

⁵ We consider as teenage pregnancy any pregnancy occurring until 18 years old. In Brazil adolescence is legally defined as the period between 12 to 18 year old by the Statute of the Child and Adolescent from 1990.

The results indicate that young women from a middle class background have a more systematic and consistent use of contraceptive methods in general (even when they do not use condoms) and they were also much more likely to declare to have used emergency contraception (27%) than young women from slums (5.6%). Although the knowledge about contraception means is practically universal in both group (over 98% know at least one method), middle class respondents tended to know a much higher number of contraceptive methods and an easier access to them.

TABLE 2
Sexual and reproductive behavior of adolescents and young women interviewed in middle class neighborhoods and slums of the center-south region of Belo Horizonte, Brazil 2007

Sexual and reproductive behavior	Respondents from middle Class Neighborhoods N=292		Respondents from slums (Favelas) N=356	
	Age group		Age group	
	15 to 19	20 to 24	15 to 19	20 to 24
Sexual experience and pregnancy				
Had sex and got pregnant	1.5	5.8	20.3	62.7
Had sex and never gotten pregnant	44.5	84.6	29.6	26.7
Never had sex	54.0	9.6	50.2	10.7
Median age at first intercourse	16	17.7	15	16
Age at 1° sexual intercourse¹				
Up to 15 years old	30.6	12.8	65.0	40.3
Between 16 to 18 years old	69.4	51.1	35.0	41.0
19 years or older	0.0	36.0	0.0	18.7
Prevalence of condom use at first sexual intercourse¹	88.7	87.9	77.7	64.9
Prevalence of condom use at last intercourse¹	66.1	47.5	50.5	39.6
Median age at first pregnancy	17	19.7	16	18
Age at first pregnancy¹				
Up to 15 years old	0.0	0.0	4.3	2.7
Between 16 to 18 years old	1.4	1.9	15.0	35.3
19 years or older	-	3.8	1.0	24.7
Never got pregnant	98.6	94.2	79.7	37.3
Desired first pregnancy	0.0	50.0	28.6	41.9
Was using contraceptive when got pregnant for the first time	0.0	0.0	22.2	77.8

Source: Autonomy and vulnerability in the lives trajectories of young women from middle and lower classes in Belo Horizonte, Brazil 2007. ¹ Correlations with p-value= or <0.05.

In general, young women from slums only get their first gynecological consultation after getting pregnant and also only go to family planning groups after having their first child (data not shown). This precarious access to sexual and reproductive services and information is directly related to the much less consistent use of contraceptive methods among young women from slums especially among the adolescents: 78% of them declared they were not using any contraceptive when they got pregnant in the first time, though 70% did not want their first pregnancy. The much higher prevalence of teenage pregnancy in this group certainly reflects this reality.

In our analysis of the determinants of the sexual and reproductive trajectories of young women interviewed, we sought to identify first which social and economical factors that have an influence on young women probability of condom use and of teenage pregnancy (data not shown). Income is strongly associated with the probability of getting pregnant before 19 years old. Lower levels of income are positively associated with getting pregnant before 19 years old for both groups, although it was not associated with condom use either in the first or in the last intercourse.

Considering only adolescents between 15 to 19 years old those have had sex are more likely to live in household headed by their mother in both groups. However, among adolescents living in slums, those who lived with their mother were less likely to have gotten pregnant than those who lived in households headed by their father, although the latter were less likely to have had sex. The same relationship is not found for older respondents who are much likely to have had sex independently of living conditions (among them the strongest relationship is between living with a partner and having got pregnant at least once). In spite of the fact that prevalence of condom use did not vary much among the different types of household (with the exception of those living with a partner who were much less likely to have used condom in their first and last relationship) it is very interesting that we found that adolescents from slums while living with their father has a deterrent effect on their sexual initiation, to live in a female headed household has a protective effect against the possibility of a pregnancy possibly maybe due to a more open and less conservative attitude from their mothers in relation to sexuality. The same result was found by us in our research in Taquaril (a slum in east region of Belo Horizonte). (Chacham et al, 2007).

Neither religion affiliation or frequency, nor color (race) did not show to have any effect on the probability of young women living in slums to have had sex, had gotten pregnant or of have used a condom (in both first and last intercourse). Those results were also found in Taquaril (Chacham et al, 2007). Among the middle class respondents color was also not found to have significant correlation with the probability of condom use and teenage pregnancy. The small number of evangelical among them, however, had a smaller chance of having had sex and having got pregnant. The strong racial homogeneity within groups (middle class mostly white and lower class mostly black) may explain the fact we could not find any correlation with color/race and sexual and reproductive behavior. Regarding the lack of correlation between religious affiliation and practices with sexual behavior among those who live in slums, a

preliminary analysis of qualitative data suggests there is a very “loose” relationship between young women and their churches, with them leaving and coming back frequently and also easily changing denominations what may explain the lack of consistence of the religious impact on their behavior.

In relation to education, when comparing young women who have had children (especially those who had children before 19 years old) with those who never have gotten pregnant, independently of social class, the former had lower levels of schooling than the latter. Respondents from slums who had children before 19 years old were less likely to have completed fundamental education (before high school) with an average of 7.5 years of education. Both their parents had a lower average of years of schooling and even their partners had a lower schooling level compared to the partners of the other respondents (data not shown). The effect of having a child before 19 on young women’s income and educational level was much more pronounced than for those having children after 19 years old. Among slum residents, young women who had their first child before 19 were also more likely to be out of school, to be married or living with a partner and to be working outside home at the time of the research. They were more likely to be working as maid or a nanny than women who had never got pregnant or had their first children with 19 years or older. Young women who never had children were much likely to be work in retail and as administrative assistants. Among young women living in middle class neighborhoods there is no difference between the level of schooling and type of occupation between those who had children after 19 years old and those who have never gotten pregnant.

In relation to condom use and educational levels there was a slight but not meaningfully association between condom use in both first and last sexual intercourse with a higher level of education in both groups. Among slum respondents, the younger cohort had a higher chance of having used condoms both in the first and in their last intercourse; however, to have had sex before 16 years of age was negatively associated with condom use at first intercourse. Marital status, as is to be expected, as strongly associated with condom use, with married/partnered women being much less likely to declare to have used condoms, especially in their last intercourse.

3.3 Gender inequality, autonomy indicators and sexual and reproductive behavior

After presenting and discussing data related to the social and economical determinants of the respondents' sexual and reproductive behavior we pass to the diction of the main point of our article: the analysis of the relationship between autonomy indicators and sexual and reproductive behavior. In TABLE 3 we present data referring to respondents' sexual and reproductive experience aggregated in a variable with four categories: "never had sex", "had sex and got pregnant before 19 years old", "had sex and got pregnant after 19 years old", "had sex and never got pregnant". Adolescents in both groups were more likely to belong to the first categories while respondents living in slums were more likely to belong to the second and third categories than middle class respondents. Older middle class respondents were more likely to belong to the last category. We crossed this variable with other four variables we considered that were strong indicators of young women's degree of autonomy in relation to freedom from control and violence by a partner: "if she was ever forbidden to wear some type of clothing and by whom", "if she was ever forbidden to have contact with some friend(s) and by whom", "if she has a determined hour to arrive home and by whom", "if she was ever suffered physical violence by a partner". Those variables already showed to have a strong association with a higher probability of teenage pregnancy and a less chance of condom use among young women who lived in Taquaril (Chacham et al., 2007).

Analyzing the data presented in the table, we can observe that the respondents who never had sex were much less exposed to control and violence from a partner than those who ever had sex. At same time, as they were generally younger in average than respondents in other groups, they were much more likely to be subjected to control by their parents, especially regarding time limits to arrive home. The degree of parental control did not vary much between social classes and seems to be determined more by age with older respondents having more freedom from parental control. It was associated to a lower probability of ever had sex only among the younger respondents (between 15 to 19 years old).

Among respondents from both social classes, to have a partner who tries to exercise some kind of control over them is strongly related to have ever been pregnant, especially among the younger respondents (15 to 19 years old) and among those who

got pregnant before 19 year old (data not shown). Respondents who got pregnant after 19 years old and were older (between 20 and 24 years old) were also more likely to suffer sort of control and violence from a partner than those who never had sex or those who had sex but never got pregnant but less so than those who got pregnant before 19, even considering the fact they were more likely to live with a partner than the latter (data not shown).

TABLE 3
Sexual and reproductive behavior by indicators of control and violence among adolescents and young women from middle class neighborhoods and slums in Belo Horizonte, Brazil 2007

Freedom of violence and control indicators	Respondents from middle Class Neighborhoods N=292				Respondents from slums (Favelas) N=356			
	Never had sex N=89	Pregnant before 19 N=5	Pregnant after 19 N=6	Never pregnant N=193	Never had sex N=89	Pregnant before 19 N=97	Pregnant after 19 N=39	Never pregnant N=101
Ever forbidden to wear some kind of clothes ¹								
By parents	23.9	20.0	16.7	15.2	27.7	12.4	10.3	10.9
By a partner	0.0	60.0	0.0	8.4	4.2	44.3	35.9	33.7
Never forbidden	76.1	20.0	83.3	76.4	68.1	43.3	53.8	55.4
Ever forbidden to contact friend(s) ¹								
By parents	7.9	20.0	16.7	17.7	28.0	16.5	12.8	20.0
By a partner	7.9	40.0	33.3	9.9	3.4	36.1	30.8	19.0
Never forbidden	84.3	40.0	50.0	72.4	68.6	47.4	56.4	61.0
Has time limit to get home ¹								
Set by parents	62.5	40.0	0.0	21.4	64.4	11.5	5.1	29.0
Set by a partner	-	-	-	-	0.0	6.2	5.1	5.0
Has no time limit	37.5	60.0	100.0	78.6	35.6	82.3	89.7	66.0
Ever been victim of physical violence by a partner ¹								
Yes	0.0	20.0	16.7	2.6	0.0	25.8	20.5	18.8
No	100.0	80.0	83.3	97.4	100.0	74.2	79.5	81.2

Source: Autonomy and vulnerability in the lives trajectories of young women from middle and lower classes in Belo Horizonte, Brazil 2007. ¹ Correlations with p-value= or <0.05 for both for middle class and slums respondents

These findings are very consistent with our previous findings in Taquaril (Chacham et al., 2007). The new element here is that the association between having a controlling and abusing partner with teenage pregnancy was found among respondents from very different social backgrounds what is a strong indication of the pervasive effect of gender inequality independently of social class. Although the magnitude of the phenomenon does vary by social class, with middle class respondents much less likely to declare to have suffered control and violence from a partner, the outcome was the same: any respondent who had a teenage pregnancy were also more likely to have had a relationship with an authoritarian and abusive partner at same point (the question did

not refer directly to the present partner). Even if she refused to obey his prohibitions at the time the impact of his attitudes persisted.

Given that respondents who ever had sex and never got pregnant and those who got pregnant after they were 19 years old – especially among respondents from middle class background – were less likely to have suffered control and/or violence from a partner than the respondents who had sex and got pregnant before 19 years of age, we can conclude there is a association between lower levels of autonomy regarding freedom of violence and control by a partner and early start of young women’s reproductive lives.

TABLE 4

Condom use in the first and last intercourse by indicators of control and violence among adolescents and young women from middle class neighborhoods and slums in Belo Horizonte, Brazil 2007

Freedom of violence and control indicators	Respondents from middle Class Neighborhoods N=203			Respondents from slums (Favelas) N=237		
	Did use condom at first intercourse n=179	Did use condom at last intercourse n=108	Ever had sex n=203	Did use condom at first intercourse n=167	Did use condom at last intercourse n=105	Ever had sex n=237
Ever forbidden to wear some kind of clothes¹						
By parents	16.4	18.9	15.4	14.4	13.3	11.4
By a partner	6.2	6.6	9.5	35.3	33.3	38.4
Never forbidden	77.4	74.5	75.1	50.3	53.3	50.2
Ever forbidden to contact friend(s)						
By parents	18.0	19.6	17.8	18.7	17.3	17.4
By a partner	10.7	8.4	11.4	27.1	26.0	28.6
Never forbidden	71.3	72.0	70.8	54.2	56.7	54.7
Has time limit to get home²						
Set by parents	21.3	24.3	21.3	19.9	27.9	17.9
Set by a partner	0.0	0.0	0.0	3.6	2.9	5.5
Has no time limit	78.7	75.7	78.7	76.5	69.2	76.6
Ever been victim of physical violence by a partner³						
Yes	2.8	2.8	3.4	17.4	21.0	21.9
No	97.2	97.2	96.6	82.6	79.0	78.1

Source: Autonomy and vulnerability in the lives trajectories of young women from middle and lower classes in Belo Horizonte, Brazil 2007. ¹ Correlations with p-value= or <0.05 for condom use in first and last intercourse for both for middle class and slums respondents ² P-value=or < 0.05 for condom use in first and last intercourse for slums respondents

³ P-value=or < 0.05 for condom use in first intercourse for slums respondents

A similar finding can be observed in TABLE 4 where we present data from condom use in the first and last intercourse by the same indicators of freedom of control and violence for respondents from both groups. In relation to condom use in the first and last sexual intercourse, young women from both slums and middle class neighborhoods who were ever forbidden by to wear some kind of clothes were less likely to have used a condom. To have ever been forbidden of having contact with some

friend showed a small but not significant effect on the probability of using a condom in either occasion while having a time limit to arrive home only was negatively associated with condom use only for respondents from slums areas (since no middle class respondent was in that situation). Physical violence by a partner had a significant association with a lower level of condom use only for the first intercourse among respondents living in slums, probably because in the last intercourse condom use had a much stronger association with having a partner at all. Again, the variables selected as indicators of freedom from violence and control from a partner produced results consistent with Taquaril findings showing that a smaller degree of autonomy in the area is related to an increased vulnerability in the sphere of sexuality.

In TABLE 5 we present correlations between some selected indicators of autonomy in the sexual sphere with the sexual and reproductive behavior of the respondents who declared they ever had sex for both middle class neighborhood and slums dwellers. The indicators of sexual autonomy were selected based on the results of Taquaril Survey (Chacham et al., 2007) and they are: “age at first intercourse”, “if wanted first intercourse”, “if talked with partner about contraception before first intercourse”, “if a partner ever refused to use a condom”, “if feel comfortable to ask a partner to use a condom”, “if felt safe enough during last intercourse to stop it after first caresses”, “if felt safe enough during last intercourse to stop it to demand to partner to use a condom”, “if a condom ever broke or slipped” and finally, “if she felt condoms interfered with pleasure during intercourse”.

Among the variables listed above, the only one that showed a strong relationship with teenage pregnancy for both groups (lower and middle class respondents) was age at first intercourse: an earlier sexual initiation increases young women possibility of getting pregnancy before 19 years old. Talking to partner about contraception before first intercourse was related to a smaller chance of getting pregnant before 19 years old for young women living in slums only. For them, to have had condoms to break or slip out during intercourse was also associated with a higher probability of ever getting pregnant. Also for respondents from slums, not feeling safe enough to interrupt last intercourse after first caresses and having a partner who ever refused to use a condom were all situations related to a higher possibility of having being pregnant after 19 years old. This result can probably be explain by the fact that young women in this circumstances were more likely to be married, a situation that makes more difficult to women to negotiate condom use and even intercourse.

TABLE 5

Sexual and reproductive behavior by indicators of autonomy in the sphere of sexuality among adolescents and young women from middle class neighborhoods and slums in Belo Horizonte, Brazil 2007

Sexual Autonomy indicators	Respondents from middle Class Neighborhoods N=203			Respondents from slums (Favelas) N=237		
	Pregnant until 18 N=5	Pregnant after 19 N=6	Never pregnant N=193	Pregnant until 18 N=97	Pregnant after 19 N=39	Never pregnant N=101
Age at 1^o sexual intercourse¹						
Up to 15 years old	100.0	33.3	15.6	68.0	35.9	40.6
Between 16 to 18 years old	0.0	66.7	57.8	31.0	38.5	45.5
19 years or older	0.0	0.0	26.6	0.0	25.6	13.9
Wanted first intercourse						
Yes	100.0	100.0	93.7	75.3	69.2	78.2
No	0.0	0.0	6.3	24.7	30.8	21.8
Talked to partner about contraception before 1^a sexual intercourse³						
Yes	0.0	50.0	50.3	39.6	53.8	64.4
No	100.0	33.3	46.6	59.4	46.2	35.6
If she felt comfortable to propose the use of condoms to a partner²						
Yes	80.0	66.7	92.2	82.5	84.6	82.2
No	20.0	33.3	6.2	17.5	15.4	14.9
If she felt she could avoid last sexual intercourse if she wanted³						
Yes						
No	80.0	83.3	89.0	78.4	61.5	74.3
	20.0	16.7	11.0	21.6	37.5	25.8
IF she felt safe enough in her last intercourse to stop it to demand condom use						
Yes	60.0	100.0	88.0	66.0	48.7	68.3
No	40.0	0.0	12.0	34.0	51.3	31.7
If a partner ever refused to use a condom³						
Yes	20.0	0.0	10.9	29.9	46.2	21.8
No	80.0	100.0	89.1	70.1	53.8	78.2
If condom ever broke or slipped during intercourse³						
Yes	50.0	66.7	48.4	55.6	56.2	35.2
No	50.0	33.3	51.6	44.4	43.8	64.8
If she feels condoms interferes with intercourse²						
Yes	100.0	83.3	42.2	35.1	41.0	32.7
No	0.0	16.7	57.8	64.9	59.0	67.3

Source: Autonomy and vulnerability in the lives trajectories of young women from middle and lower classes in Belo Horizonte, Brazil 2007

¹ Correlations with p-value=or < 0.05 for both middle class and slums respondents

² Correlations with p-value=or < 0.05 for middle class respondents only

³ Correlations with p-value=or < 0.05 for slums respondents only

In other hand, for middle class respondents only we found a significant association of ever being pregnant with not feeling comfortable to ask a partner to use a condom and feeling that condom use interferes with pleasure during intercourse. Result that indicates a less common but real difficult of some middle class women with how to use condoms and to negotiate their use.

TABLE 6
Condom use by indicators of autonomy in the sphere of sexuality among adolescents and young women
from middle class neighborhoods and slums in Belo Horizonte, Brazil 2007

Sexual Autonomy indicators	Respondents from middle Class Neighborhoods N=203			Respondents from slums (Favelas) N=237		
	Did use condom at 1 ^a intercourse n=179	Did use condom at last intercourse N=108	Ever had sex n=203	Did use condom at 1 ^a intercourse n=167	Did use condom at last intercourse n=105	Ever had sex n=237
Age at 1^o sexual intercourse						
Up to 15 years old	16.2	15.7	18.2	49.7	55.2	51.1
Between 16 to 18 years old	58.7	57.4	56.7	40.1	37.1	38.4
19 years or older	25.1	26.9	25.1	10.2	7.6	10.5
Wanted first intercourse¹						
Yes	94.4	90.7	94.1	81.4	72.4	75.5
No	5.6	9.3	5.9	18.6	27.6	24.5
Talked to partner about contraception before 1^a sexual intercourse²						
Yes	47.5	51.9	48.8	61.1	57.1	52.5
No	52.5	49.1	51.2	38.9	42.9	47.5
If she felt comfortable to demand condom use¹						
Yes	92.2	98.1	91.1	85.2	84.8	82.7
No	7.8	1.9	8.9	14.8	15.2	17.3
If she felt she could avoid last intercourse if she wanted to³						
Yes	88.8	88.9	87.7	65.3	75.1	64.1
No	11.2	11.2	12.3	34.7	24.9	35.9
IF she felt safe enough in her last intercourse to stop it to demand condom use¹						
Yes	89.9	98.1	88.7	77.2	78.1	73.8
No	10.1	1.9	11.4	22.8	21.9	26.2
If a partner ever refused to use a condom						
Yes	10.6	9.3	10.8	26.9	32.4	29.1
No	89.4	90.7	89.2	73.1	67.6	70.9
If she feels condoms interferes during intercourse¹						
Yes	41.9	24.1	44.8	37.1	25.7	35.0
No	58.1	75.9	55.2	62.9	74.3	65.0

Source: Autonomy and vulnerability in the lives trajectories of young women from middle and lower classes in Belo Horizonte, Brazil 2007.¹P-value=or < 0.05 for condom use at first and last intercourse for lower and middle class respondents. ²P-value=or < 0.05 for condom use at first intercourse for lower class respondents. ³P-value=or < 0.05 for condom use at last intercourse for lower class respondents.

In TABLE 6 where we present data from condom use in the first and last intercourse by the same indicators of autonomy in the sphere of sexuality for respondents from both groups. In relation to condom use in the first and last sexual intercourse, age at first intercourse was not associated with condom use for respondents from both slums and middle class neighborhoods. If she wanted her first intercourse however, was positively associated to condom use in the first and last intercourse for both groups what indicates a permanence of the influence of young women's lack of autonomy in the beginning of their sexual lives on their previous sexual experiences.

If respondent talked to partner about contraception prior first intercourse is significant only for the first intercourse among respondents from slums. Not feeling safe to stop last intercourse after first caresses was associated with lower condom use at last intercourse for young women living in slums, most likely to be married. In contrast, wanting to have first intercourse, feeling comfortable to demand condom use from a partner, feeling safe enough to stop intercourse to demand condom use and not feeling that condoms interfere with pleasure were all related to a higher prevalence of condom use at the first and last intercourse for both groups. Again, results that point to the importance of a high level of autonomy in the sexual sphere especially when related to the capacity to negotiate condom use with a partner.

4. Building autonomy indices for a multivariable analysis

Based on the results discussed above, we selected some variables that showed to be statistically associated with the sexual and reproductive behavior of our respondents in order to built indices of autonomy regarding the sphere of sexuality and freedom from control and violence from a partner. The selected variables are:

Index of autonomy regarding freedom from control and violence from a partner

1. If she has ever been victim of physical assault from a partner.
2. If she have ever been forbidden of wearing certain kind of clothes by a partner
3. If she has ever been forbidden of having contact with some friend(s) by a partner
4. If partner sets a specific time for her to arrive home

Index of autonomy regarding control of sexuality

1. Age at first intercourse
2. If she talked with her partner about contraception before their first sexual;
3. If she wanted her first sexual intercourse;
4. If a partner ever refused to wear a condom;
5. If she felt comfortable to demand the use of condom;
6. If she felt she could stop intercourse after beginning the first caresses to demand condom use;
7. If she felt safe enough in her last intercourse to stop it to demand condom use.
8. If she felt condom use interferes with sexual intercourse.

In relation to the last index, after running regressions for different models we decide to create a separated index for autonomy regarding young women's capacity for negotiating condom use using only variables four, five, six and seven in the list above. The three first variables referred exclusively to the young women first sexual experience and we decided not to mix them with variables that are related to experiences that may occur frequently during their sexual trajectories (every time she has to negotiate condom use) and not referring to a single event (first sexual initiation). The last variable can be considered more associated to women's own experiences with condom use and pleasure and might not be totally related to her relationship with a partner, so it was considered separately for the multivariable analysis, but not all at the same time to avoid multicollinearity.

The indices built ranged from 0 to four and were utilized in a series of logistical regressions that allowed us to analyze simultaneously the impact of different variables on the dependent variables (related to sexual and reproductive behavior). The independent variables used in our regression (but not in every one) were: the two indices, the single variables related the sexual autonomy, age, years of schooling, marital status (if married or cohabitating at the moment of the interview) and family income (in log, to reduce the influence of the huge disparity among incomes). The dependent variables were: condom use at the first and last intercourse and if she ever had sex and if ever she got pregnant (if before or after 19 years old).

For our first model we run a multinomial regression using as dependent variables the following outcomes: "if she had sex and got pregnant before 19 years old" and "if she had sex and got pregnant after 19 years old" compared to the reference category "she had sex and never got pregnant". The independent variables utilized in this model were: "Index of autonomy regarding freedom from control and violence from a partner", "index for autonomy regarding young women's capacity for negotiating condom use", "if she talked to partner about contraception before first intercourse", "age at first intercourse", "years of schooling", "if married or cohabitating at the time of the interview" and "family income (in log)."

Compared to the reference category "she had sex and never got pregnant" we found that the odds ratio of a women to have had get pregnant before 19 years old increases in 3.4 times if she was married (or living with a partner) at the moment of the interview. Other two variables were significant at a 99% level: age at first intercourse and family income level. As younger she was at her sexual initiation, higher the chances

of getting pregnant before 19 years old. For each year she anticipated her sexual initiation she increased in 31% her chances of getting pregnant before 19 years old. However, the variable with most influence on her probability of getting pregnant before 19 is family income (Wald: 25.569): for each decrease in income level (in this case, for each log decreased) she increased in 90% her probability of getting pregnant. These results confirm all the recent research done in Brazil about teenage pregnancy being a almost exclusively lower class phenomenon, even educational levels have no weight in this model.

In the analysis of young women' probability of getting pregnant after age 19, also utilizing as reference category "to have sex and not ever being pregnant", we verified that the odds ratio of a women to have had get pregnant after 19 years old increases in 6.5 times if she is married (or living with a partner) at the moment of the interview. Again, two variables were significant at a 99% level: family income level and the index of autonomy related to her capacity of negotiating condom use. For each decrease in income (in log) she increases in 80.8% her chances of getting pregnant and each decrease in the index level increases in 42% her chances of being pregnant after 19 year of age. However in relation to the chances of getting pregnant for the first time after 19 years old, being married of living with a partner showed the most weight in this model (Wald: 22.051).

It is interesting to observe that the lack of autonomy regarding the negotiation of condom use showed to be statistically associated with the chances of a pregnancy before 19 year old among young women from middle class neighborhoods and slums. This finding signalizes to the fact that the difficult in negotiating condom use within a stable relationship increases the probability of pregnancy even among girls from a higher social and economical strata. None of variables related to young women's experience with first intercourse were significant in this model.

Regression 1 – Probability of respondents to get pregnant before age 19 and after age 19 in relation to the probability of having had sex and never gotten pregnant.

Probability of pregnancy		B	Std. Error	Wald	Sig.	Exp(B)
Had sex and got pregnant before 19 years of age	Intercept	13.381	1.831	53.434	.000	
	Index of autonomy related to freedom from violence and control from a partner	-.147	.155	.899	.343	.863
	Index of autonomy related to capacity to negotiate condom use	-.016	.160	.011	.918	.984
	Talked to partner about contraception before first intercourse	-.603	.309	3.806	.051	.547
	Age at first intercourse	-.374	.091	16.846	.000	.688
	If partnered	1.397	.360	15.105	.000	4.044
	Income (Log)	-2.310	.457	25.569	.000	.099
	Years of schooling	-.086	.065	1.740	.187	.918
Had sex and got pregnant after 19 years of age	Intercept	3.710	1.991	3.471	.062	
	Index of autonomy related to freedom from violence and control from a partner	-.189	.192	.968	.325	.828
	Index of autonomy related to capacity to negotiate condom use	-.548	.182	9.061	.003	.578
	Talked to partner about contraception before first intercourse	.085	.378	.050	.822	1.088
	Age at first intercourse	-.003	.095	.001	.976	.997
	If partnered	2.017	.430	22.051	.000	7.519
	Income (Log)	-1.653	.521	10.064	.002	.192
	Years of schooling	.152	.081	3.512	.061	1.164

a. The reference category is: had sex and never got pregnant

The second model presented here used a logistic regression having as dependent variable “the probability of **not** using condom at first sexual intercourse” and as independent variables: “Index of autonomy regarding freedom from control and violence from a partner”, “index for autonomy regarding young women’s capacity for negotiating condom use”, “if she did not want to have her first intercourse”, “if she feels that condom use interferes with intercourse”, “age at the time of the interview”, “years of schooling”, “if married or cohabitating at the moment of the interview” and “family income (in log).”

According to our results, for each year of young woman’s age (at the moment of the interview) there was an increase of 13% in the probability of her **not** had used condom at first intercourse (which signalizes a change in cohort behavior, older women being less likely to have used condoms at first intercourse). In relation to the index of autonomy of freedom of control and violence from a partner, each decrease in the index

raised in 23% her probability of **not** had used a condom. For the index of autonomy in relation to her capacity of negotiating condom use, each decrease in index level, increased in 28.4% her probability of **not** have using a condom. If she answered that she did not want to have her first intercourse, hers chances of **not** having used condom increased in 48%.

Regression 2: Probability of not using condom at first sexual intercourse

	B	S.E.	Wald	df	Sig.	Exp(B)
Index of autonomy related to freedom from violence and control from a partner	-.267	.131	4.149	1	.042	.766
Index of autonomy related to condom use	-.334	.130	6.563	1	.010	.716
If she did not want to have her first intercourse	-.742	.311	5.672	1	.017	.476
Age	.122	.053	5.427	1	.020	1.130
Years of schooling	-.102	.053	3.744	1	.053	.903
Income (Log)	-.260	.318	.670	1	.413	.771
If she feels condom interferes during intercourse	-.184	.276	.447	1	.504	.832
Constant	.573	1.319	.189	1	.664	1.774

These results above also indicate that condom use was not associated with income, schooling and if she feels that condoms interfere with during intercourse. The most strong association found was with the index of autonomy related to young women’s capacity to negotiate condom use, if she wanted her first intercourse, respondents’ age (older women were less likely to use condom), followed by the index of autonomy related to freedom from violence and control from a partner. Lack of autonomy in the sphere of sexuality showed to be statistically associated with the probability of pregnancy before 19 year old among young women from middle class neighborhoods and slums. This finding signalizes to an association with difficulties in negotiating condom use even among girls from a higher social and economical strata.

Our third regression used as dependent variable “the probability of **not** using condom at last sexual intercourse” and as independent variables: “index of autonomy regarding freedom from control and violence from a partner”, “index for autonomy regarding young women’s capacity for negotiating condom use”, “if she did not want to have her first intercourse”, “if she feels that condom use interferes with intercourse”, “age at the moment of the interview”, “years of schooling”, “if married or cohabitating

at the moment of the interview” and “family income (in log).” Variables related to her first sexual experience were not included in this model as they did not show any significance.

Regression 3: Probability of not using condom at last sexual intercourse

	B	S.E.	Wald	df	Sig.	Exp(B)
Index of autonomy related to freedom from violence and control from a partner	.023	.132	.029	1	.864	1.023
Index of autonomy related to condom use	-.329	.130	6.441	1	.011	.720
If partnered	1.633	.341	22.922	1	.000	5.121
Age	.055	.049	1.267	1	.260	1.057
Years of schooling	-.041	.049	.695	1	.405	.960
Income (Log)	.033	.260	.017	1	.898	1.034
If she feels condom interferes with pleasure during intercourse	1.277	.233	29.925	1	.000	3.586
Constant	-.511	1.151	.197	1	.657	.600

In this model we have as reference category “the probability of **not** using condom at last intercourse”. For the index of capacity of negotiation condom use, each decrease in index level, increased in 28% young woman’s probability of **not** have used a condom. “If she agrees that condoms interferes during intercourse” increased in 2.58 times her chances of **not** have used a condom. However, the strongest predictor of condom use during last intercourse is marital status. We found that being married (or cohabitating) at the moment of the interview increased in 4.12 times the chances of a young woman **not** have used a condom in the last intercourse.

According to this results, the probability of not using condom in the last relationship is strongly associated to marital status (if she is married) and to her feelings about that condom use (if she feels it interferes⁶ with sexual intercourse), followed by the index of autonomy related to young women’s capacity to negotiate condom use. Income, age and educational level were not found to be associated with condom use at last intercourse. The fact that the weight of the variable “if she feels that condom use interferes with intercourse” – stronger than the weight of the index of autonomy regarding her capacity to negotiate condom use – is a powerful indicative of how complex is to negotiate condom use in a stable relationship.

⁶ The question asked if she felt condom use interfered with intercourse regarding her pleasure or comfort. Forty percent of them agreed that condoms interfered with intercourse. Among them 54% declared its use hurts during sex and 41% declared it reduces her pleasure.

Far from being only a matter of men refusing to use it against women's desire, at least for those with stable partners, women feelings regarding its use have considerable weight too. It is important to remember that women also have agency in this area, at least in more egalitarian societies. In the other hand, this finding may also indicates that young women, who have in general less sexual experience (as well as their partners who were not much older, in average), might have difficulties with the proper use of condoms, being less informed about the importance of using lubricants and keeping a high level of sexual excitation during intercourse, matters related to how to obtain sexual pleasure, subject that is rarely discussed in most sexual education programs. This lack of information brings serious consequences, considering that young women's feelings about condoms appears to be as important to predict long term use that her capacity to negotiate condom use with a partner.

Final comments and recommendations

Our results allow us to argue that asking some basic questions about the nature of a couple's relationship, if more traditional (meaning more controlling by the male partner) or more egalitarian can be very useful to illuminate the impact of gender inequality on young women's sexual and reproductive behavior. The use of some those variables as indicators of autonomy seems to be an useful approach to a better understanding of this impact, even in countries that went through deep changes in the context of gender relations and traditional gender roles, an approach that warrants further exploration in different settings.

Our findings point to the existence of a statistically significant relationship between different indicators of young women's autonomy and the prevalence of teenage pregnancy and the probability of condom use among respondents both from middle class neighborhoods and for living in slums in the same geographical area. The levels of autonomy of young women interviewed are directly related to the context of the relationship with her partner, if more equal or more authoritarian and controlling. An abusive and controlling partner decreases young women's capacity to negotiate condom use and timing of intercourse, increasing their vulnerability to unplanned pregnancies and exposure to STIs. In the other hand, communication among partners, the existence of dialogue about sex and contraception and the possibility of negotiation among

partners are crucial elements for a healthy and satisfactory sexual life. Thus, unequal gender relations have a direct impact in women's autonomy and on her probability of using a condom and to avoiding an unplanned pregnancy, independently of social class.

However, it is important to point out that even considering that the impact of gender inequality hits women from different social classes with measurable effects on their sexual and reproductive health, the influence of socioeconomic background (and as consequence, access to education) is still very strong in the context. In spite of the fact that relationships with authoritarian partners who try to control their behavior increase young women's chances of a teenage pregnancy, its prevalence is several magnitudes higher among lower income women who live in slums of urban areas in Brazil. They constitute a population who is subjected to multiple forms of social vulnerability in their lives including gender oppression. In this context, an early, unplanned pregnancy can affect young women's life trajectories in a more damaging and permanent way, diminishing her chances of completing her education (of finishing at least high school) and affecting her chances of getting a more qualified position in the labor market. This is an outcome from an unplanned teenage pregnancy that women from a higher social stratum may not experience. Of course is not the case of demonizing teenage pregnancy or stigmatizing it but acknowledging its consequences for young women in an environment with added social vulnerabilities are impossible to ignore.

Our results suggest that implementing public policies geared towards adolescents and young adults' needs are fundamental to increase poor young women (and men) access to better educational and economic opportunities and also to make sure they have access to sexual and reproductive health education and services before they get pregnant or get infected with a STI. It is also very important that health services to make sure that adolescents learn about how to proper use a condom and education on sexual health should also discuss sexual pleasure.

Furthermore, it is imperative to ensure that adolescent/young mothers have the opportunity to finish their education and to get professional training besides access to day care. Also, is very important to implement school programs to inform and educate about the pervasiveness of gender violence within families and couples' relationships as well as to develop strategies to curb and punish gender violence.

Finally, since a high school education is not preparing young women to get a more qualified position at labor market, social programs should increment their future professional opportunities by training them to have access to more diverse types of

occupations. Traditionally, job training programs for women in Brazil only offer them training in professions that are related to traditional gender roles and the domestic sphere (such as cook, nannies, nurses, caretakers and hairdressers).

The absence of public policies focused on this segment represents a total lack of understanding of their reality and the impact of rapidly changing economic environment and of precarious working condition on their lives. In this sense, it is urgent to think new policies that make possible to adolescents and young adults from lower classes to have access to higher level of education and professional training that effectively incorporates them in the job market, opening perspectives of higher remuneration and a professional career. This seems to be possible ways to overcome the persistence of unequal and oppressive gender relations.

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