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Factors associated with pregnancy and motherhood among Mexican women aged 15-24

Factores asociados con el embarazo y la maternidad entre mujeres mexicanas de 15-24 años

Fatores associados à gravidez e maternidade entre mulheres mexicanas com idade de 15 a 24 anos

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Abstract

Adolescent pregnancy is associated with poor health and socioeconomic factors. The adolescent pregnancy rate in Mexico is the highest among the Organization for Economic Co-operation and Development (OECD) countries. We aimed to explore the factors associated with pregnancies and births in adolescent and young adult women. Using the 2015 Mexican National Survey of Boys, Girls, and Women *(ENIM), we examined two dichotomous outcomes: "ever pregnant" and "being a mother" in women from 15 to 19 years and from 20 to 24 years without pregnancies during adolescence. We conducted bivariate analysis for each age group and used general linear models (GLM) to assess the association between the outcome variables and selected socioeconomic variables. Among adolescents, school attendance and tertiary education significantly decreased the likelihood of ever having been pregnant or being mothers, while being married/cohabiting increased the likelihood. Older age at first intercourse was negatively associated with ever having been pregnant. For adult women, in addition to school attendance, tertiary education, and being married/cohabiting, the region of residence also showed a significant association with ever having been pregnant. Similar socioeconomic factors were associated with pregnancy and motherhood between adolescents and young adults. However, it was found that delaying sexual debut could reduce the adolescent pregnancy rate. Our results highlight the importance of attending school and attaining tertiary education in reducing adolescent fertility rates.*

Adolescent Pregnancy; Motherhood; Socioeconomic Factors

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The 17 Sustainable Development Goals (SDGs) were adopted to promote prosperity while protecting the planet. Among the 17 goals, Goal 3 seeks to ensure healthy lives and to promote well-being at all ages. Reducing the adolescent birth rate is a priority, which requires promoting universal access to sexual and reproductive healthcare services and integrating reproductive health into national strategies and programs [1]. According to the World Health Organization (WHO), about 11% of total births worldwide were attributable to women under 20 years of age, and about 95% of these births occurred in low- and middle-income countries [2], usually among the most disadvantaged adolescents [3,4].

Adolescent pregnancy is associated with negative health and socioeconomic outcomes [5,6]. A greater risk of death has been associated with adolescent (15-19 years) pregnancy or childbirth than for adult (20-24 years) pregnancy or childbirth [7,8]. Giving birth during adolescence is strongly associated with adverse living conditions for both adolescent mothers and their children [8,9,10].

According to the *Demographic and Health Surveys* (DHS), in most countries there was a slight decline in the proportion of adolescents who reported ever having become pregnant and in the proportion of adolescents who had had a live birth [11]. Mexico's pregnancy rate was the highest among the Organization for Economic Co-operation and Development (OECD) countries; adolescent women in Mexico increased their fertility by 11.3% in the last five years, ranking them as the third highest age group in terms of contributions to fertility in the country [12]. Mexico recently implemented the *Multiple Indicator Cluster Survey* (MICS), a household survey to provide internationally comparable data about children and women.

Analyzing the factors associated with adolescent pregnancy and early motherhood, in the context of high rates of adolescent pregnancy, with comparable data is important to inform public policies for meeting the SDGs. Mexico's characteristics offer an ideal case study because of its pervasive inequality accompanied by the fact that half of adolescent pregnancies were intended [13], resembling the situation in other countries. We aimed to explore the factors associated with pregnancies and births in adolescent women (aged 15-19) and in young adults (aged 20-24) who delayed motherhood during adolescence, using MICS data.

Methods

We used the 2015 *Mexican National Survey of Boys, Girls, and Women* (ENIM, its acronym in Spanish), the Mexican implementation of MICS. The MICS was a household survey program for monitoring children's and women's health and well-being that was developed and coordinated by the United Nations Children's Fund (UNICEF). This was a probabilistic, multi-stage, cluster household survey that was representative at the national and regional levels and for rural and urban areas. ENIM's methodological details are described elsewhere [14]. Following the ethical principles for medical research involving human subjects, parents or guardians of the adolescents (aged < 18 years) who participated in the survey read and signed an informed consent form; adolescents also read and signed an informed assent before responding the questionnaire. The study was approved by the Ethics Review Board of the National Institute of Public Health (INSP) in Mexico.

Sample

From the 3,652 women aged 15-24 who answered the *Individual Women's Questionnaire*, we excluded 1,510 women who at the time of the survey had never engaged in heterosexual intercourse and 503 women aged 20-24 who were pregnant before the age of 20. Our final sample consisted of 608 women aged 15-19 and 1,031 women aged 20-24, yielding a total sample of 1,639 women.

Measures

We examined two dichotomous outcomes in the present study: "ever pregnant" and "being a mother". The former identified women who had ever been pregnant (early pregnancy before 19 years old vs pregnant after adolescence for women aged 20-24), and the latter identified those who became

mothers (after adolescence for women aged 20-24). We selected the following measures that had a theoretical association with adolescent pregnancy.

- **Social and demographic measures**

Indigenous background was coded as "1" if participants spoke an indigenous language. Participants were asked if they were attending school and what was the highest level of education they attained. We categorized educational attainment as primary or less (less than 7 years of education), lower secondary (7-9 years of education), upper secondary (10-12 years of education), and tertiary (more than 12 years of education). We included marital/cohabitation status (ever married/cohabiting or never married/never cohabiting), and socioeconomic status that was obtained using the wealth index quintiles constructed for the survey following UNICEF's methodology [15]. We classified as poor those from the poorest and second lowest wealth quintiles, and as non-poor otherwise.

- **Sexual and contraceptive use measures**

Age at first sexual intercourse was dichotomized as before age 15 and age 15 or later [16] and it was used as a continuous measure in the multivariable analysis. We used a dichotomous variable to identify those women whose partner was at least 10 years older than them. We used two measures of contraception in the bivariate analysis: current use of modern contraception methods and condom use at last sexual intercourse. We used the MICS variables for modern methods, including: female sterilization; vasectomy; IUD; hormonal methods (pills, injections and implants); male and female condoms; diaphragms; and jelly, sponge, or spermicide. We only included contraception measures in the bivariate analysis due to the close proximity of contraception measures in the causal chain to become pregnant and the fact that in Mexico, many women start using highly effective contraception after their first birth [17].

- **Other variables**

Other factors assessed were perception of a better life (coded as "1" if the participant thought their life had improved during the preceding year and expected their life to improve during the subsequent year); use of computers (whether participants used a computer during the previous 12 months at least once a week); use of internet (whether participants used the internet during the previous 12 months at least once a week); access to public health services; region (Northwest, Northeast, Central, Mexico City and State of Mexico, and South); and area of residence (rural or urban). We only included access to public health services in the bivariate analysis due to the possibility of reverse causality, since pregnant women with no access to such services are able to be enrolled in Seguro Popular, a Mexican health program which provides health services at no cost.

Statistical analyses

We computed frequencies of women's characteristics according to whether or not they had ever been pregnant. We also reported the statistical significance of differences between characteristics of those who had ever been pregnant and those who had never been pregnant using chi-squared tests. We conducted separate bivariate analyses for women aged 15-19 and for women aged 20-24 who did not get pregnant before age 20.

We used general linear models (GLM) to assess associations with the outcome variables "ever pregnant" and "being a mother". We used GLM with log-link functions, Poisson distributions, and robust standard errors [18,19] considering that binomial models for prevalence ratios tend to underestimate standard errors and therefore generate narrower confidence intervals [19]. We estimated parsimonious stratified models by age (15-19 and 20-24 with no pregnancies before age 20) for all women who had ever had sexual intercourse prior to the survey. We included variables whose bivariate tests had a p-value < 0.25 in the GLM with the exception of access to public health services and contraception variables. This significance level (< 0.25) was used only as a criterion for the initial selection

of variables to be included in the first multivariate model because some authors found that a lower level could fail to identify variables that were thought to be important, based on previous research or theoretical assumptions [20]. We reported prevalence ratios (PR) instead of risk ratios because we used a cross-sectional survey. We conducted all analyses using Stata 15.0 (https://www.stata.com) and its svy suite for analyzing complex survey design data.

Results

Table 1 presents the socioeconomic characteristics of women who reported ever having sexual intercourse by being pregnant and by age-group (15-19 and 20-24). Indigenous background was not significantly associated with ever being pregnant in the adolescent group. However, among adult women, ever being pregnant was significantly higher in the indigenous (87%) than in the non-indigenous group (64%). Among women attending school, 72% and 82% had never been pregnant in adolescence and as young adults, respectively. In contrast, only 25% of adolescents and 22% of adults had never been pregnant among those who quit school. Significant differences by educational attainment were also observed. The proportion of ever-pregnant women in both age groups was significantly higher for primary or less and lower secondary education than for upper secondary and tertiary education. Only about 9% of adolescents and 24% of adults with tertiary education reported ever having been pregnant, compared to 85% of adolescents and 90% of adult women with primary or less education.

Table 1

Sociodemographic, sexual and other characteristics of women aged 15-24 who reported having had sexual intercourse. 2015 *Mexican National Survey of Boys, Girls, and Women*, Mexico.

Characteristics	15-19 years				20-24 years			
	n	Never pregnant	Ever pregnant	p-value *	n	Never pregnant	Ever pregnant	p-value *
Indigenous background								
No	576	41.2	58.8	0.789	966	36.1	63.9	0.002
Yes	32	45.2	54.9		64	13.5	86.5	
School attendance								
Does not attend	399	25.2	74.8	0.000	805	21.5	78.5	0.000
Attends	209	72.4	27.6		226	81.8	18.3	
Educational attainment								
Primary or less	66	14.6	85.4	0.000	80	10.1	90.0	0.000
Lower secondary	233	21.9	78.1		338	16.1	83.9	
Upper secondary	243	53.7	46.3		320	22.6	77.4	
Tertiary	67	91.4	8.6		293	76.1	23.9	
Marital/Cohabitation status								
Never married/cohabiting	272	74.6	25.4	0.000	393	79.1	20.9	0.000
Ever married/cohabiting	336	14.7	85.3		636	7.4	92.6	
Age at first intercourse (years)								
Younger than 15	145	14.3	85.7	0.000	63	23.8	76.2	0.338
15 or older	464	49.9	50.1		968	35.4	64.6	
Partner 10 years older or more								
No	478	41.1	58.9	0.475	840	35.9	64.2	0.001
Yes	62	30.8	69.2		71	11.3	88.7	

(continues)

Table 1 (continued)

Characteristics	15-19 years				20-24 years			
	n	Never pregnant	Ever pregnant	p-value *	n	Never pregnant	Ever pregnant	p-value *
Modern contraception use								
No	388	48.5	51.5	0.002	470	43.5	56.5	0.020
Yes	220	29.0	71.0		561	27.3	72.7	
Condom use at last intercourse								
No	339	23.3	76.7	0.000	625	20.3	79.7	0.000
Yes	210	67.6	32.4		320	61.1	38.9	
Perception of a better life								
No	254	38.4	61.6	0.422	494	32.6	67.4	0.562
Yes	355	43.6	56.4		538	36.6	63.4	
Used a computer during the last 12 months at least once a week								
No	312	24.6	75.4	0.000	512	14.8	85.2	0.000
Yes	296	59.2	40.8		519	54.4	45.6	
Used the internet during the last 12 months at least once a week								
No	183	19.3	80.7	0.000	386	11.3	88.7	0.000
Yes	425	51.0	49.0		645	48.7	51.3	
Access to public health services **								
No	26	68.5	31.5	0.062	29	48.0	52.0	0.079
Yes	446	36.8	63.2		836	29.2	70.9	
Socioeconomic status								
Not poor	339	53.4	46.6	0.000	608	45.9	54.1	0.000
Poor	269	26.3	73.7		424	18.6	81.4	
Region								
Northwest	155	47.2	52.8	0.557	212	27.3	72.7	0.091
Northeast	121	34.5	65.5		216	35.6	64.4	
Center	81	34.5	65.5		147	20.2	79.8	
Mexico City-State of Mexico	114	42.2	52.8		251	43.0	72.7	
South	137	44.4	55.6		204	41.7	58.3	
Area of residency								
Urban	466	44.9	55.1	0.012	845	37.4	62.6	0.002
Rural	142	30.1	69.9		187	22.5	77.5	
Total (%)	608	252 (41.4)	356 (58.6)		1,031	358 (34.7)	673 (65.3)	

Note: displaying weighted observations by variable, followed by weighted row proportions using cluster and stratified sampling weights.

* p-values derived from chi-squared test;

** Mexican Social Security Institute (IMSS), Mexican Civil Service Social Security and Services Institute (ISSSTE), Seguro Popular, IMSS-Solidaridad-Oportunidades or Pemex, Army or Navy.

Marital status showed a strong and significant association with ever having been pregnant. Most married or cohabiting women reported having been pregnant (85% among adolescents and 93% among young adults). Age at first sexual intercourse was significant only for women under 20. Most adolescents with an earlier sexual debut (before age 15) reported ever having been pregnant (86%) compared with only half of those with a later sexual debut. Having older partners (at least 10 years older) was significantly associated with higher pregnancy rates only in young adult women. We observed a significant association with contraception variables for both age groups. More than 70% of those using modern contraception methods reported ever having been pregnant. By contrast, less than 40% of those who reported using a condom at last intercourse reported ever having been pregnant. Use of Information and Communication Technology (ICT) was also significantly associated

with ever having been pregnant in both age groups. Among those using computers and internet, the proportion of women reporting ever having been pregnant was lower than among those who did not use ICT. In addition, poor women represented a higher proportion of ever-pregnant women (74% for adolescents and 81% for adults) than did their non-poor counterparts (47% for adolescents and 54% for adults). Finally, we observed a higher proportion of ever-pregnant women among rural areas for both age groups (70% for adolescents and 78% for adults in rural areas versus 55% and 63%, respectively, in urban areas).

Based on GLM models for adolescents, those who attended school (compared to their peers out of school) were 28% less likely to have ever been pregnant. Similarly, adolescents with tertiary education (more than 12 years of schooling) were about 70% less likely to report ever having been pregnant. A later sexual debut was also negatively associated with "ever being pregnant"; in fact, for each year an adolescent delayed her sexual debut, the prevalence of pregnancy was 8% lower. Ever married or cohabiting adolescents, compared with those never married/never cohabiting, had a 2.12-fold higher chance of ever having been pregnant (Table 2). Adolescent motherhood was also significantly associated with less school attendance, lower educational attainment, and being married/cohabiting. In general, all prevalence ratios were lower than those observed in adolescent pregnancy models (Table 2).

Table 3 presents the multivariate models for women aged 20-24 who did not get pregnant before age 20. It shows that attending school is associated with a 42% lower likelihood of being pregnant for women who did not become pregnant before age 20. Likewise, tertiary education is associated with almost a 30% lower prevalence of pregnancy. By contrast, married or cohabiting women had a 3.11-fold higher chance of ever being pregnant than their never married/cohabiting counterparts. For women aged 20-24 who did not get pregnant before age 20, the region was significantly associated with ever being pregnant. Women living in Northeast, Central, Mexico City and State of Mexico, and South regions had significantly lower prevalence of ever having been pregnant, compared to those living in the Northwest region (13%, 15%, 9%, and 26%, respectively).

Likewise, being a mother was significantly and negatively associated with school attendance (PR = 0.57) and tertiary educational attainment (PR = 0.67). There was a strong, positive, and significant association with marriage/cohabitation status (PR = 3.83). In addition, women with the perception of a better life had a 1.11-fold higher prevalence of being mothers than did those who did not think their life had improved during the preceding year and/or who did not expect their life to get better during the subsequent year. Living in the Northeast, Central, and South regions, compared to those living in the Northwest region was significantly associated with being a mother (16%, 15% and 23%, respectively).

Discussion

We explored the socioeconomic factors associated with pregnancy and motherhood in adolescents and compared the factors associated with pregnancy and motherhood in young adults who did not became pregnant during adolescence. We found that attending school, educational attainment, and marriage/cohabitation were significantly associated with our outcome variables for both age groups. Age at first sexual intercourse was significant only for the adolescent group, while region was significant only for adult women. A perception of a better life was positively associated with being a mother only in the adult group.

We found that early pregnancy and motherhood were strongly associated with school attendance, tertiary education, and marital or cohabitation status. These associations operated in opposite directions: while attending school and tertiary education prevented adolescents from becoming pregnant, getting married or living with a partner increased the prevalence of pregnancy. Our results showed that school attendance protected adolescents from early pregnancy and childbearing, aligned with previous findings [21,22,23,24,25]. We also observed a much lower proportion of women who reported ever having been pregnant among those with tertiary education (Table 1). Furthermore, having tertiary education significantly reduced the prevalence of both "ever being pregnant" and "being a mother". Therefore, keeping adolescents in school might be an effective policy not only for reducing adolescent pregnancy and early motherhood, but also for preventing early entry into marriage or cohabitation.

Table 2

Characteristics associated with ever being pregnant and being a mother for women aged 15-19. 2015 *Mexican National Survey of Boys, Girls, and Women*, Mexico.

Characteristics	Ever pregnant (n = 773)		Being a mother (n = 773)	
	PR	95%CI	PR	95%CI
School attendance				
No	1.00	-	1.00	-
Yes	0.72 *	0.53, 0.97	0.59 *	0.40, 0.88
Educational attainment				
Primary or less	1.00	-	1.00	-
Lower secondary	1.06	0.90, 1.26	0.96	0.78, 1.19
Upper secondary	0.95	0.72, 1.26	0.87	0.61, 1.23
Tertiary	0.31 *	0.14, 0.70	0.28 *	0.11, 0.69
Marital/Cohabitation status				
Never married/cohabiting	1.00	-	1.00	-
Ever married/cohabiting	2.12 **	1.61, 2.80	1.89 **	1.44, 2.47
Age at first intercourse	0.92 ***	0.87, 0.97	0.86 **	0.81, 0.91
Perception of a better life				
No	1.00	-	1.00	-
Yes	0.94	0.81, 1.11	1.01	0.84, 1.23
Used a computer during the last 12 months at least once a week				
No	1.00	-	1.00	-
Yes	0.96	0.79, 1.18	1.02	0.81, 1.29
Used the internet during the last 12 months at least once a week				
No	1.00	-	1.00	-
Yes	0.98	0.85, 1.14	1.04	0.86, 1.26
Socioeconomic status				
Not poor	1.00	-	1.00	-
Poor	1.09	0.94, 1.27	1.10	0.91, 1.34
Area of residence				
Urban	1.00	-	1.00	-
Rural	0.90	0.79, 1.04	0.92	0.76, 1.11
Constant	1.47	0.63, 3.45	4.17 *	1.56, 11.18

95%CI: 95% confidence interval; PR: prevalence ratio.

Note: p-values derived from t-test.

* $p < 0.05$;

** $p < 0.001$;

*** $p < 0.005$.

Although Mexico has made significant progress in expanding education, upper secondary and tertiary educational levels remain highly stratified [26]. Without effective access to these levels of education, early entry into marriage or a cohabiting union and early entry into motherhood will continue as the only life option for some disadvantaged adolescents [27,28,29].

We observed that the strongest association with adolescent pregnancy and early motherhood was marriage/cohabitation status. In settings such as Mexico, there is often close sequencing of union and first birth; however, sometimes this sequencing is not clear because some unions may be formed as a response to an expected birth [30]. Currently, Latin America and the Caribbean is the only region in the world where child marriage has not declined over the last 30 years [31], with Mexico occupying the 3rd place among countries with the highest proportion of women between 20-24 years old who were married or in a union before they were 18 years old (23%) [32,33]. Social vulnerability, lack of choices for young women, and stigma around early pregnancies and single motherhood often push adolescent

Table 3

Characteristics associated with ever being pregnant and being a mother for women aged 20-24 who did not get pregnant before age 20. 2015 Mexican National Survey of Boys, Girls, and Women, Mexico.

Characteristics	Ever pregnant (n = 1,160)		Being a mother (n = 1,160)	
	PR	95%CI	PR	95%CI
Indigenous background				
No	1.00	-	1.00	-
Yes	1.07	0.91, 1.25	0.97	0.81, 1.16
School attendance				
No	1.00	-	1.00	-
Yes	0.58 *	0.36, 0.91	0.57 *	0.36, 0.90
Educational attainment				
Primary or less	1.00	-	1.00	-
Lower secondary	0.96	0.82, 1.11	0.96	0.83, 1.11
Upper secondary	0.94	0.80, 1.10	0.94	0.81, 1.09
Tertiary	0.72 *	0.53, 0.98	0.67 **	0.52, 0.87
Marital/Cohabitation status				
Never married/cohabiting	1.00	-	1.00	-
Ever married/cohabiting	3.11 ***	2.23, 4.33	3.83 ***	2.67, 5.44
Partner 10 years older or more				
No	1.00	-	1.00	-
Yes	1.07	0.95, 1.20	1.11	0.97, 1.27
Perception of a better life				
No	1.00	-	1.00	-
Yes	1.03	0.93, 1.15	1.12 *	1.01, 1.23
Used a computer during the last 12 months at least once a week				
No	1.00	-	1.00	-
Yes	0.98	0.88, 1.09	0.94	0.84, 1.04
Used the internet during the last 12 months at least once a week				
No	1.00	-	1.00	-
Yes	0.95	0.86, 1.05	0.98	0.88, 1.08
Socioeconomic status				
Not poor	1.00	-	1.00	-
Poor	1.08	0.96, 1.20	1.09	0.96, 1.23
Region				
Northwest	1.00	-	1.00	-
Northeast	0.87 *	0.76, 0.99	0.84 *	0.72, 0.97
Center	0.85 **	0.75, 0.95	0.84 *	0.74, 0.96
Mexico City-State of Mexico	0.91	0.79, 1.05	0.87	0.74, 1.01
South	0.74 ***	0.64, 0.87	0.77 **	0.65, 0.92
Area of residence				
Urban	1.00	-	1.00	-
Rural	0.99	0.90, 1.08	0.96	0.87, 1.07
Constant	0.36 ***	0.25, 0.52	0.27 ***	0.18, 0.40

95%CI: 95% confidence interval; PR: prevalence ratio.

Note: p-values derived from t-test.

* $p < 0.05$;

** $p < 0.005$;

*** $p < 0.001$.

girls into formal and informal unions, which subsequently increase the likelihood of pregnancy [34] and school drop-out [25,35].

An important aspect frequently ignored when talking about adolescent pregnancy is the fact that some of these pregnancies were not only intended but were also planned. This fact is more relevant in settings such as Latin America where legal marriage and cohabitation are not clearly differentiated and are even treated non-discriminatively [30]. In addition, some studies have shown that among the most disadvantaged adolescents, early pregnancy was often intended, because it was a way to leave a violent environment or to achieve a significant role in society [27,28,29]. Our results showed that attending school reduced the prevalence ratios of adolescent pregnancy and motherhood; however, they also showed a strong positive association with marriage/cohabitation status. Therefore, it is important to keep adolescent women in school; however, where limited socioeconomic alternatives for adolescents prevail among disadvantaged groups, adolescent women will likely continue considering union and motherhood as desirable life choices. Public policy must aim to improve and increase educational and job opportunities for young women and men in order to enhance the professional development of these adolescents [3]. Moreover, policy makers should take into consideration the fact that a proportion of adolescent pregnancy is intended; they could target these teenagers when designing policies to reduce adolescent fertility.

The age at first sexual intercourse has been declining over the last 30 years in Mexico [36], possibly increasing the risk of pregnancy during adolescence. A previous study found that women who had an early sexual debut were at higher risk of early entrance into motherhood [21]. In a country such as Mexico, where access to contraception is granted by law [36] and sexual education must be integrated to school curricula [37,38,39], one would think that contraceptive use would be widespread across all ages. Yet Mexico has one of the highest adolescent pregnancy rates of 21 countries analyzed across the world [40], and only 59% of sexually active adolescents use contraception [12,36]. This highlights the importance of improving adolescent education on sexual and reproductive rights, providing effective counseling, and access to preferred contraceptive methods.

Although this study showed nationally representative information with strong associations between adolescent pregnancy, early motherhood and the explored variables, it had limitations inherent to cross-sectional studies, i.e., inability to establish causality or consequences of an adolescent pregnancy. For example, it was not possible to analyze how long a girl/woman was in a marital union prior to a pregnancy. Similarly, we could not assess whether the adolescent dropped out of school due to pregnancy or the pregnancy happened after she left school. In addition, we were not able to include access to public health services as a variable in our analyses, despite the important bivariate association with our outcome variables due to reverse causality; this highlights the necessity for further studies with longitudinal data.

This study highlighted a strong positive association of early sexual debut and early marriage or cohabitation with adolescent pregnancy and early motherhood, as well as the importance of school attendance and tertiary education attainment in delaying entry into motherhood. Although these results were aligned with those of previous studies [21,23,24], the fact of using an internationally comparable dataset may help other middle- and low-income countries with high levels of adolescent pregnancy and motherhood to generate evidence that will encourage public policies to design effective programs for reducing their respective adolescent fertility levels.

Contributors

C. Hubert contributed with conception and design, analysis and interpretation of data, and drafting the article. A. Villalobos contributed with conception and design, interpretation of data, and drafting the article. A. B. Abreu and F. Castro contributed with statistical design and critical review of the manuscript for important intellectual content. L. Suárez-López contributed with conception and design and critical review of the manuscript for important intellectual content.

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Resumen

El embarazo durante la adolescencia se asocia con una salud precaria y consecuencias socioeconómicas negativas. La tasa de embarazo adolescente en México es la más alta entre los países de la Organización para la Cooperación y el Desarrollo Económicos (OCDE). Nuestro objetivo fue explorar factores asociados a embarazos y nacimientos en mujeres adolescentes y adultas jóvenes. Utilizando la Encuesta Nacional de Niños, Niñas y Mujeres *(ENIM), 2015, examinamos dos resultados dicotómicos: "embarazadas alguna vez" y "ser madre" en mujeres de 15 a 19 años y de 20 a 24 sin embarazos durante la adolescencia. Realizamos un análisis bivariado por grupo de edad y usamos modelos lineales generales (MLG) para evaluar la asociación entre el resultado de las variables y las variables socioeconómicas seleccionadas. Entre adolescentes, la asistencia escolar y contar con educación terciaria disminuía significativamente la posibilidad de haber estado embarazada o ser madres, mientras que estar casada/unida con alguien incrementó la posibilidad. Una edad más avanzada durante las relaciones sexuales estuvo negativamente asociada con haber estado alguna vez embarazada. Para las mujeres adultas, además de la asistencia escolar, educación terciaria, y estar casada/unida con alguien, la región de residencia también mostró una asociación significativa con haber estado alguna vez embarazada. Factores socioeconómicos similares estuvieron asociados con el embarazo y la maternidad entre adolescentes y adultos jóvenes. No obstante, se descubrió que retrasar el inicio de las relaciones sexuales podría reducir la tasa de embarazos adolescentes. Nuestros resultados subrayan la importancia de ir a la escuela y realizar estudios de nivel superior para reducir las tasas de fertilidad adolescentes.*

Embarazo en Adolescencia; Maternidad; Factores Socioeconómicos

Resumo

A gravidez na adolescência está associada a desfechos socioeconômicos e de saúde ruins. A taxa de gravidez na adolescência do México é a mais alta entre os países da Organização para a Cooperação e Desenvolvimento Econômico (OCDE). Nosso objetivo foi explorar os fatores associados a gravidezes e partos em adolescentes e mulheres jovens. Usando o Inquérito Nacional de Meninos, Meninas e Mulheres *(ENIM) de 2015, examinamos dois desfechos dicotômicos: "ter engravidado" e "ser mãe" em mulheres de 15 a 19 anos e de 20 a 24 anos sem gravidezes durante a adolescência. Realizamos uma análise bivariada para cada faixa etária e usamos modelos lineares generalizados (GLM) para avaliar a associação entre as variáveis de desfecho e variáveis socioeconômicas selecionadas. Entre adolescentes, a frequência escolar e a educação superior reduziram significativamente a probabilidade de ter engravidado ou ser mãe, enquanto ser casada ou morar com o parceiro aumentou essa probabilidade. Ter a primeira relação a uma idade mais avançada associou-se a uma menor prevalência de gravidez. Para mulheres adultas, além da frequência escolar, educação superior e ser casada/morar com o parceiro, a região da residência também teve uma associação significativa com ter estado alguma vez grávida engravidado. Fatores socioeconômicos similares estiveram associados à gravidez e maternidade entre adolescentes e jovens. Contudo, observou-se que adiar a iniciação sexual poderia reduzir a taxa de gravidez na adolescência. Nossos resultados assinalam a importância da frequência escolar e da obtenção da educação superior para a redução das taxas de fecundidade em adolescentes.*

Gravidez na Adolescência; Maternidade; Fatores Socioeconômicos

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