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Fertility awareness and parenting intentions among Mexican undergraduate and graduate university students.

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Abstract

An online, cross-sectional survey was used to assess fertility awareness among students attending the national, autonomous university (UNAM) in Mexico City between November 2017 and January 2018. A total of 371 students participated in the survey (n=228 females, 143 males). 75% of females and 74% of males believed a woman's fertility begins to decline markedly after age 40. Over 75% of all participants overestimated the probability of couples having a live birth after undergoing one cycle of IVF. With regard to parenting intentions, only 48% of females wished to have children in the future compared to 59% of males ($p=0.037$) and men were more likely to have their first child at age 30 or later (71% men vs 55% women). In the event of infertility, participants had a higher preference not to have children or to pursue adoption rather than using in vitro fertilization (IVF). In summary, university students in Mexico City demonstrated low levels of fertility awareness. A remarkably smaller proportion reported a wish to have children of their own than young people have reported elsewhere in the world.

Key words: Fertility awareness, parenting intentions, university students, Mexico, Latin

America

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Introduction

Infertility, a disease characterized by ‘the failure to establish a clinical pregnancy after 12 months of regular, unprotected sexual intercourse’ (Zegers-Hochschild et al., 2017), is a global problem. In 2010, it was estimated that 48.5 million couples experienced involuntary childlessness, of which 19.2 million were diagnosed with primary infertility (unable to have one child) and 29.3 million had secondary infertility (unable to have a second child) (Mascarenhas et al., 2012). While some medical causes of infertility are unavoidable, including genetic disorders, health problems, or structural abnormalities, a proportion of infertility causes are embedded in social contexts and may be preventable (Greil et al., 2010; Macaluso et al., 2008). Socio-cultural norms and reproductive knowledge influence health-related decision-making and have an impact on health behaviours that affect fertility. Over the past decade, fertility awareness — a knowledge of human reproduction and fecundity, awareness of family planning and family building options, and an understanding of the influence of individual and environmental risk factors on infertility — has been the focus of studies throughout the world (Bunting et al., 2013). Furthermore, fertility awareness was included in the *2017 International Glossary on Infertility and Fertility Care* (Zegers-Hochschild et al., 2017), cementing its importance as a global issue that should be given consideration by clinicians, healthcare providers, researchers, and policymakers.

Over the past 25 years, studies from around the world have shown that university students as well as men and women in the general population have low levels of fertility awareness (Chan et al., 2015; Hammarberg et al., 2013; Iliyasu et al., 2013; Mahey et al., 2018; Peterson et al., 2012; Rouchou & Forde, 2015; Svanberg et al., 2006; Tydén et al., 2006). A 2018 systematic review of fertility awareness literature reported that between 1994 and 2017

83 there were 71 fertility awareness studies conducted in 26 countries on five continents including
84 Europe (n=27), North America (n=16), Asia (n=12), Oceania (n=7), Africa (n=4), or among a
85 combination of countries on different continents (n=5) (Pedro et al., 2018). Remarkably, there
86 have been no studies of fertility awareness in Latin America, despite a regional prevalence of
87 infertility within the globally expected range of 8-12% (World Health Organization [WHO],
88 1991) and a combined population of 639 million (United Nations Department of Economic and
89 Social Affairs, Population Division, 2017).

90 At least 1.5 million couples in Mexico face infertility (Gonzalez Cervera, 2006), but the
91 issue of infertility and fertility awareness has not been a public health focus and the subject has
92 largely been ignored from a research perspective. In the developing world, infertility is situated
93 in a context of national and international efforts to reduce total fertility rates and lessen the
94 substantial burden of adolescent pregnancy (Ombelet et al., 2008; WHO, 2018). Although the
95 total fertility rate in Mexico has fallen to 2.1 children per woman in 2018, it has historically been
96 significantly higher compared with other North American countries. The total fertility rate in
97 Mexico was 6.6 children per woman in 1970 and 3.5 children per woman in 1990 (World Bank,
98 2018). The corresponding figures for the United States during the same years, were 2.5 and 2.1,
99 respectively. In terms of teen pregnancy rates, Mexico in 2015 had the highest rates of
100 adolescent births among Organization for Economic Cooperation and Development (OECD)
101 countries (77 cases per 1,000 women; Consejo Nacional de la Población [CONAPO], 2015) – a
102 ranking which contributed to the launch of a government-supported ‘National Strategy to Prevent
103 Teenage Pregnancy’ (Gobierno de la Republica de Mexico, 2015). These efforts to reduce
104 national birth rates and address the issue of adolescent pregnancy in Mexico are important.
105 However, there is still a corresponding need to address infertility.

106 Modifiable risk factors contribute to infertility, including untreated sexually transmitted
107 infections (STIs), obesity/low body weight, and lifestyle behaviours such as tobacco and alcohol
108 use (Eggert et al., 2004; Kelley-Weeder & O'Connor, 2006). The impact of age on fertility
109 should also be emphasized. Alongside high-income countries, low- and middle-income
110 countries are tending to shift the norm of childbearing and family building to later in life, beyond
111 the window of optimal fertility to an age when women are less fertile (Rosero-Bixby et al.,
112 2009). For example, in 2008, the average age for Mexican women at first birth was 21.3 years
113 (U.S. Central Intelligence Agency, 2020) but this had increased by 2018 to 26.6 years
114 (Organization for Economic Cooperation and Development (OECD) Family Database, 2019)
115 though this figure is still lower than in other OECD countries, where the average age is 30 or
116 above (OECD Family Database, 2019). While timing of childbearing is driven by a complex
117 interaction of factors, knowledge of age-related fertility decline is cited as a key aspect to
118 preventing infertility problems (Bunting & Boivin, 2007).

119 In general, college-aged young adults throughout the world report the desire to have
120 children and place great importance on starting a family (Chan et al., 2015; Rovei et al., 2010;
121 Sørensen et al., 2016; Svanberg et al., 2006; Virtala et al., 2011). Additionally, university
122 students are a population likely to delay childbearing in the pursuit of educational and financial
123 goals (Mills et al., 2011). In high-income countries, parenting intentions are weighed alongside
124 other deciding factors such as having a stable job, a steady relationship that allows for shared
125 responsibility, feeling emotionally ready, and socially supported (Rovei et al., 2010; Tydén et al.,
126 2006). While many studies find that students report intention to have their first child during their
127 most fertile years, there is a large proportion of students with poor fertility awareness and a
128 desire to delay childbearing until age 35 or later (Virtala et al., 2011). Poor understanding of the

129 limitation of fertility can lead to involuntary childlessness, which in turn can cause psychological
130 distress and an altered life-course trajectory (Peterson & Place, 2019).

131 The purpose of the current study was to examine fertility awareness in a sample of
132 Mexican college students. Specifically, the study asked (i) whether male and female university
133 students in Mexico had adequate levels of fertility awareness to make informed reproductive
134 choices, and (ii) what were the parenting intentions of university students in Mexico in relation
135 to their desired number of children and age for childbirth

136 **Materials and Methods**

137 **Participants and Procedures**

138 The study procedures were reviewed and approved by a U.S.-based Institutional Review
139 Board at Ball State University (IRB; ID# 1120755). The sample consisted of undergraduate and
140 graduate students from the National Autonomous University of Mexico (UNAM) in Mexico
141 City. Since students did not have access to a university-sponsored email platform, participants
142 were recruited using the social media site *Facebook*. An invitation to participate in the study
143 was posted to 25 *Facebook* groups specifically designated for UNAM students representing
144 diverse fields of study. Members of the groups were invited to participate in an online Spanish-
145 language survey about fertility issues and parenting attitudes and intentions. Members of the
146 original *Facebook* groups were encouraged to ‘share’ the invitation with others in order to
147 increase participation. An announcement of the survey was also posted on a general UNAM
148 *Facebook* page that may or may not have been seen by students depending on newsfeed
149 preferences. The study invitation included two separate URLs leading to specific surveys for
150 men and women. Participants were only included if they reported being actively enrolled as a
151 student at the university and age 18 or older. Consenting participants completed the survey and

152 those who provided their personal email addresses were entered into a lottery to win one of four
153 \$25 gift cards to a café.

154 **Measures**

155 The current study used a Spanish translated version of the Swedish Fertility Awareness
156 Questionnaire, which has been shown to have adequate face validity and reliability (Lampic et
157 al., 2006). The measure has also been used to study fertility awareness in the United States
158 (Peterson et al., 2012), Hong Kong (Chan et al., 2015), and Denmark (Sørensen et al., 2016). The
159 translation into Spanish was conducted by a professional translator and then reviewed
160 independently and back-translated by the fourth author. The 31-item questionnaire gathered
161 demographic information and assessed five primary domains: (i) perceived knowledge of fertility
162 issues (two items), (ii) intentions to have children (seven items), comprising yes/no questions
163 and open-ended questions aimed at understanding intentions and potential obstacles to having
164 children; (iii) awareness of fertility issues (seven items) consisting of questions related to
165 changes in female-fertility, probabilities of pregnancy following unprotected intercourse, and of
166 live birth following the use of in vitro fertilization (IVF); (iv) behavioural intentions in the case
167 of infertility (four items) concerning the likelihood of using IVF, adopting, or choosing not to
168 have children rated on a 0-10-point scale, and (v) conditions important for parenthood (eleven
169 items) including finding a partner to share the responsibility, and feeling mature enough to have
170 a child.

171 **Data Analysis**

172 Categorical data comparing differences between female and male participants were
173 analyzed using the χ^2 test. In the case of not meeting expected cell counts, Fisher's Exact Test
174 was used. The fertility awareness questions had response options where the correct answer was

175 based on the literature (Center for Disease Control and Prevention, 2016; Dunson et al., 2002;
176 van Noord-Zaadstra et al., 1991; Van Voorhis, 2007; Zegers-Hochschild et al., 2017; Zinaman et
177 al., 1996). When asked to estimate a percentage on some fertility awareness questions, some
178 participants provided a range. In these cases, the median was used for the purpose of analysis.
179 Questions using a 0-10 response scale (0=totally unlikely; 10 highly likely) were analyzed using
180 independent sample t-tests with equality of variance assessment using Levens's test. To
181 determine statistical significance for all data, the alpha value was set at $\alpha=0.05$, making
182 statistical significance $P<0.05$. IBM SPSS Statistics Version 25 for Macintosh was used in all
183 data analysis.

184 **Results**

185 **Demographic Characteristics**

186 Demographic characteristics of the participants are presented in Table 1. There were a
187 total of 371 participants, comprising 228 females (61.5%) and 143 males (38.5%). The average
188 age of the study participants was 23.3 (SD=5.12). The largest proportion of participants was
189 studying either science, mathematics, and technology (31.8%), or social sciences (33.2%). The
190 remaining programs consisted of public and social service, arts and humanities, and health and
191 medicine. About half (54.4%) of participants reported being single. Female participants were
192 more likely than male participants to be in a committed relationship, engaged, or married (43.6
193 versus 35.5%, $\chi^2 = 10.8$, $p = 0.043$). Of the 371 participants, only 9% already had a
194 child/children.

195 **Perceived Knowledge and Sources of Education**

196 A majority of the participants indicated they were either 'very educated,' (7.9%)
197 'educated,' (33.3%) or 'somewhat educated'(41.4%) about fertility issues. Nearly half of

198 participants indicated that schooling was the primary means of gaining fertility knowledge
199 (45.0%), followed by media (25.3%), doctor (12.4%), family (9.2%), other (4.6%), and friends
200 (3.2%). Female participants were more likely to report gaining knowledge from their doctor (χ^2
201 = 19.14, $p = 0.002$).

202 **Importance and Intentions of Having Children**

203 Participants' future intentions concerning children, the desired number of children, and
204 the planned age to have children are given in Table 2. Less than half of female participants
205 (47.8%) wanted to have children compared to 59.4% of males ($p=0.037$). Neither female nor
206 male participants rated having children as highly important (mean = 4.0, SD = 2.9 females; mean
207 = 4.4, SD = 3.0 males, respectively on a 10-point scale). Of those that did desire children, both
208 female and male participants wanted an average of two children (SD=0.86). The vast majority of
209 participants wished to have their first child prior to age 35. Female participants were more likely
210 to want their first child at an early age compared to male participants, with 44.3% of female
211 participants wanting to have their first child between the ages of 25 and 29 compared to only
212 29.1% of males ($p = 0.037$). Female participants were also significantly more likely to want to
213 have their last child at an earlier age; 96.8% of female participants wanted to have their last child
214 by age 39 compared to 76.0% of male participants ($p = 0.001$). Overall, the mean desired age by
215 which to have a first child was 30.1 (SD = 3.0) for females and 31.6 (SD = 3.7) for males ($p =$
216 0.004).

217 **Intended Behaviour in Case of Infertility**

218 Female and male participants' attitudes in the event of infertility are presented in Table 3.
219 When asked using a 0-10 point scale (0=totally unlikely; 10=highly likely) what they would do if

220 they were diagnosed with infertility, both male and female participants rated not having children
221 and adoption higher than pursuing IVF treatment (see Table 3).

222 **Awareness of Fertility**

223 Participants demonstrated poor fertility awareness in terms of age and fertility, the
224 probability of pregnancy following unprotected intercourse, and the likely success of assisted
225 reproductive technologies (ARTs) in the event of infertility (Table 4).

226 Around a half of females (56.4%) and males (54.3%) believed the slight decline in a
227 woman's fertility begins at age 35 or older. The vast majority of participants also overestimated
228 the age at which they believed there is a marked decrease in a woman's fertility, with 78.4% of
229 females and 73.9% of males indicating that they thought this decline occurred at age 40 and
230 older. 88.7% of women and 90.8% of men overestimated the percent chance of conception for a
231 <25-year-old woman having unprotected sex during ovulation. Similar overestimation occurred
232 for the probability of pregnancy over the course of one year and the probability of couples
233 having a live birth after undergoing one cycle of IVF. Finally, 72.5% of women and 55.0% of
234 men overestimated the proportion of couples in Mexico who confront involuntary childlessness.

235 **Discussion**

236 As far as we are aware, this is the first investigation of fertility awareness and parenting
237 intentions of university students in Latin America. The findings support much of what has been
238 reported in countries around the world (Bunting et al., 2013; Pedro et al., 2018). In the current
239 study, Mexican university students demonstrated poor fertility awareness, despite 80% believing
240 they were highly educated, educated, or somewhat educated on matters of fertility and
241 reproduction. Since 1994, 71 studies from 26 countries have found that, in general, young
242 people are unable to assess the ages of fertility decline in women, the probability of pregnancy

243 based on age following unprotected sex, or the probability of success with IVF (Chan et al.,
244 2015; Hammarberg et al., 2013; Iliyasu et al., 2013; Lampic et al., 2006; Pedro et al., 2018;
245 Peterson et al., 2012; Tydén et al., 2006).

246 In the current study, participants' lack of knowledge on human reproduction reveals
247 overly optimistic yet misinformed beliefs about the likelihood and ease of becoming pregnant at
248 later ages. For example, 78% of women and 74% of men believed that a woman's fertility
249 begins to decline markedly at age 40 and older, when in reality, this decline happens after age 37
250 (American College of Obstetricians and Gynecologists [ACOG], 2014). Coupled with
251 behavioural and lifestyle risk factors prevalent in Mexico, such as rising rates of obesity (OECD,
252 2017) or untreated STIs (Gutierrez et al., 2006), inaccurate perceptions of the relationship
253 between age and fertility puts young people who delay childbearing at increased risk of
254 involuntary childlessness. Improving fertility knowledge, on the other hand, has the potential to
255 help young people work towards behaviour changes which optimize fertility (Fulford et al.,
256 2013).

257 One of the most surprising findings was that only 48% of female and 59% of male
258 university students in Mexico City planned to have children. Compared to fertility awareness
259 studies around the world, this high level of participants who do not desire any biological children
260 is unprecedented. It also contrasts with traditional Latin American values that emphasize
261 familial bonds and relationships (Ingoldsby, 1991). It is possible that young Mexican university
262 students do not conceptualize bearing biological children as integral to this view, or are leaving it
263 behind in pursuit of value systems that do not emphasize building biological families. The level
264 of education predicts differences in desired family size among Latina women in the United
265 States, with more educated women desiring fewer children (Unger & Molina, 1999). It is also

266 common for people in urban areas with high, concentrated populations to have low childbearing
267 intention, as is the case in Mexico City with a population close to 25 million (Dey, 2006; Lo,
268 2003). However, a previous study of fertility awareness in the urban centre of Hong Kong found
269 that 80% of Chinese university students intended to become a parent (Chan et al., 2015),
270 indicating that factors other than urban pressures may be contributing to the low percentage of
271 Mexican university students desiring biological children.

272 These findings also contrast dramatically with Swedish and American studies, where
273 95% and 90% of participants planned to have children, respectively (Lampic et al., 2006;
274 Peterson et al., 2012). One explanation may be related to socio-economic differences. Students
275 in Mexico who are pursuing higher education may opt to forgo childbearing in pursuit of career
276 stability, especially when faced with the challenging economic prospects of maintaining financial
277 security in an upper middle-income country. Early results from unpublished focus group data
278 suggest that students are conscious of living in a world with limited resources and hesitate to
279 have children (Place et al., 2018). Differences in the desire for childbearing between countries
280 could also be explained by social/cultural norms. For example, Nordic countries such as
281 Sweden, Denmark, and Finland have government-supported, affordable access to child care
282 coupled with shared cultural beliefs about egalitarian work and family responsibilities (Lampic et
283 al., 2006; Sørensen et al., 2016; Virtala et al., 2011). Future studies should explore the low rate
284 of childbearing intention among Mexican students, particularly the role of socio-economic
285 factors and social/cultural norms in contextualizing and shaping these attitudes.

286 When participants were asked about their intended behaviour in the case of infertility,
287 IVF was reported as the least likely option compared to adoption and child-free living. These
288 answers were similar to findings from a study of university students in Hong Kong (Chan et al.,

289 2015), but different from those in the United States and Sweden, where participants rated IVF as
290 the most likely course of action in the case of infertility (Lampic et al., 2006; Peterson et al.,
291 2012). One explanation may be the high cost of ART treatment options. In a nationwide survey,
292 about half of Mexican women who self-reported infertility visited a healthcare provider, yet only
293 1% underwent IVF (Gonzalez Cervera, 2006). While ARTs are significantly less expensive in
294 Mexico relative to the United States, it is possible that lower mean household incomes in Mexico
295 make these treatments prohibitively expensive for most couples. Another possible explanation is
296 that Mexican men and women may not seek out IVF due to beliefs that are well-documented in
297 other studies, including desiring a child that is biologically their own and unassisted by medicine
298 (Arya & Dibb, 2016). Ironically, although it is the least preferred option in the event of
299 infertility, participants showed unwarranted confidence in the capacity of IVF technology to
300 deliver positive results, since 90% of women and 81% of men overestimated the probability of
301 live birth, possibly foreshadowing emotional difficulties if expectations did not mirror rates of
302 treatment success (Hammarberg et al., 2001).

303 Finally, while adoption was rated as a more likely behaviour than IVF, it is still fraught
304 with many difficulties in Mexico where media outlets report that between 2012 and 2017, only
305 approximately 35% of formal petitions for adoption of a minor child were granted, despite at
306 least 30,000 children living in orphanages, many of whom are available for adoption (“Como es
307 el proceso de adopcion en Mexico,” 2018). Intra-family adoptions, or informally adopting the
308 child of a close relative, has been reported among Latinos in the United States (Place & Bireley,
309 2017) and populations in other parts of the world (Culley & Hudson, 2010; Unisa, 1999),
310 perhaps signalling help-seeking for infertility that occurs outside traditional Western medical
311 models.

312 The findings from our study also have public health implications. In light of the results
313 demonstrating a lack of fertility awareness among university students in Mexico City, two
314 recommendations from the World Health Organization (WHO) should be considered in efforts to
315 address the reproductive knowledge gap: First, infertility should be recognized as a public health
316 issue in developing countries. Second, public awareness of infertility and its causes should be
317 increased in order to improve preventative behaviour among men and women (Vayena et al.,
318 2002). Leaders who advance the field of infertility services in low- and middle-income countries
319 agree that the first priority should always be primary prevention over tertiary, ART intervention
320 (Inhorn, 2003; Ombelet et al., 2008). While at least 52 centres are authorized to practice ART in
321 Mexico, and local access is increasing (Braff, 2013; Gobierno Federal, 2013), the importance of
322 primary prevention in resource-poor contexts cannot be overstated given the limited availability
323 of infertility services, particularly in the public sector. Worldwide estimates suggest that of 56%
324 of couples who seek help for infertility-related issues, only 22% obtain it (Boivin et al., 2007).
325 Furthermore, because the WHO has called for the integration of infertility into existing sexual
326 and reproductive health programs, promoting a conversation about fertility awareness in these
327 countries should run parallel to important, ongoing family planning efforts. The United States
328 Centers for Disease Control (CDC) has likewise brought to attention the need to ‘reconcile and
329 clarify simultaneous public health messages’ for preserving fertility *and* preventing unplanned
330 pregnancies (CDC, 2014). Not only does fertility awareness help to safeguard future fertility,
331 but education on human reproduction has the potential to reduce total fertility rates in
332 overpopulated areas if men and women are mindful of how and when to achieve the desired
333 number of children (Bauer et al., 2006; Potts & Marks, 2001).

334 Finally, our findings can serve as evidence of the need for fertility awareness-based
335 interventions adapted for dissemination in low- and middle-income countries (Garcia et al.,
336 2018). Standardized protocols for fertility awareness programs or tools should include
337 stakeholder feedback on culturally sensitive wording, as well as the feasibility and acceptability
338 of each potential intervention (Bayoumi et al., 2018). A variety of studies have demonstrated that
339 web-based interventions, such as conveniently-accessed posts, brochures, and videos, have
340 significantly increased fertility knowledge among young people (Conceição et al., 2017; Daniluk
341 & Koert, 2015; Wojcieszek & Thompson, 2013). A randomized controlled trial by Maeda et al.
342 (2016) found that a physical brochure significantly improved Cardiff Fertility Knowledge Scale
343 (SFKS-J) scores among a sample of individuals ages 20 to 39 ($p < 0.001$). Other avenues for
344 dissemination include training healthcare providers to discuss the time-bound nature of fertility
345 when patients seek contraceptive counselling or other healthcare services; something that
346 OBGYN residents have shown they are willing to consider (Yu et al., 2016). Finally, healthcare
347 and education providers can begin to reframe the dual protection condoms offer (i.e., concurrent
348 protection against unplanned pregnancy and STIs/HIV) as triple protection by helping young
349 people to think about condoms as a way to preserve fertility through avoiding STIs while
350 preventing unplanned pregnancy (Brady, 2003).

351 **Limitations**

352 While a major strength of our study was the participation of students from diverse fields
353 of study, there were several limitations. First, the study was limited by potential biases inherent
354 in any online, self-report study. Specifically, because we had no way of reaching participants
355 through university-sponsored email addresses, the use of *Facebook* groups could lead to self-
356 selection bias. Second, some fields of study did not have a *Facebook* presence and thus could

357 not be reached through online invitations. Third, because there was no way of knowing how
358 many students were reached and who chose not to reply, it was not possible to calculate a
359 response rate or conduct analyses examining for non-response bias. Finally, it is possible that
360 students at UNAM had differing and more non-traditional views toward childbearing compared
361 with Mexican men and women in the general population. Caution should therefore be used when
362 generalizing findings to other populations in Latin America because of socio-cultural differences
363 between and within countries. Nevertheless, the findings from this study directly address a
364 significant knowledge gap in the field about young people's fertility awareness in Latin America.

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Authors' Roles

367 J.M.P designed the study, oversaw quantitative data collection, and participated in all phases of
368 manuscript preparation. B.D.P participated in the study design, instrument revision, literature
369 review, data analysis, and manuscript preparation. B. H conducted data analysis, literature
370 review, and participated in all phases of manuscript preparation. M. S participated in instrument
371 revision, data collection, and manuscript preparation.

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Conflict of Interest

374 The authors have no conflicts of interest to declare.

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385 [Practice/co589.pdf?dmc=1&ts=20190227T2137465844](https://www.acog.org/-/media/Committee-Opinions/Committee-on-Gynecologic-Practice/co589.pdf?dmc=1&ts=20190227T2137465844)
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Tables

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Table I: Socio-demographic characteristics of the study population of female and male university students in Mexico City.					
	Women (n=228)		Men (n=143)		Gender Difference (P-value)
Age, mean (SD)	22.7 (4.8)		23.85 (5.5)		0.03
Years at university, mean (SD)	2.5 (1.2)		2.6 (1.2)		0.57
	n	%	n	%	
Race/Ethnicity ^a					0.65
Hispanic/Latino	207	91	133	93	
White/Caucasion	11	5	5	3	
Other ^b	9	4	4	3	
Relationship Status					0.04
Single	116	51	86	61	
Committed Relationship	82	36	39	28	
Engaged or Married	17	7	11	8	
Other	12	5	5	3	
Parenthood Status, have children (yes)	23	10	9	6	

688 ^a Participants encouraged to select a category they most identify with689 ^bNative American (n=3 female, n=2 male); Middle Eastern (n=1 female, n=0 male); Asian &
690 Pacific Islander (n=0 female, n=1 male); Other not specified (n=5 female, n=1 male)

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Table II: Intentions of having children among the study population of female and male university students in Mexico City.					
	Women		Men		Gender Difference (P-value)
	n	%	n	%	
Want to have children					0.037
Yes	97	48	79	59	
No	106	52	54	40	
Desired number of children, mean±SD (n)	2.01±0.82 (n=98)		2.1±0.91 (n=79)		
Desired age at first child (years)					0.037
25-29	43	44	23	29	
30-34	41	42	38	48	
35-39	13	13	14	18	
40-44	0	0	4	5	
Desired age at last child (years)					0.001
25-29	7	7	4	5	
30-34	47	50	26	33	
35-39	37	39	30	38	
40-44	2	2	15	19	
45 and older	1	1	4	5	

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Table III: Presumed behaviour in case of infertility among the study population of female and male university students in Mexico City.

	Women (n=186) Mean (SD)	Men (n=114) Mean (SD)	t
IVF ^a	4.03 (3.17)	4.25 (3.21)	-0.59
Adoption	5.48 (3.08)	5.47 (3.09)	0.37
Choose not to have children	5.47 (3.12)	5.68 (3.07)	-0.6

Means based on a 0-10 point scale (0=totally unlikely; 10=highly likely)

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^a In vitro fertilization is a medical procedure where the fertilization of an embryo occurs outside of the body and is transferred to the uterus

Table IV: Women and men’s awareness of fertility issues.

Items	Categories	Women (n=182-204) (% within gender)	Men (n=127- 130) (% within gender)	P- value
At what age are women most fertile?	≤19	9	11	0.28
	20-24 ^a	34	35	
	25-29	51	41	
	30-34	5	11	
	≥35	1	1	
At what age is there a slight decrease in women’s ability to become pregnant?	20-24	2	0	0.12
	25-29 ^a	3	7	
	30-34 ^a	40	39	
	≥35	56	54	
At what age is there a marked decrease in women’s ability to become pregnant?	≤34	4	5	0.21
	35-39 ^a	18	21	
	40-44	50	38	
	≥45	29	36	
For women <25 having unprotected sex during ovulation, what is the probability of pregnancy?	≤29	9	6	0.49
	30-39 ^a	2	3	
	>50	89	91	
For women 25-30 having unprotected sex during a 1 year period, what is the probability of pregnancy?	≤69	12	12	0.95
	70-79 ^a	12	12	
	80-89	26	29	

	≥ 90	50	47	
For women 35-40 having unprotected sex during a 1 year period, what is the probability of pregnancy?	≤ 49	29	23	0.73
	50-59 ^a	14	16	
	60-69	22	22	
	≥ 70	35	39	
What percentage of couples in Mexico are involuntarily childless?	≤ 4	1	2	0.02
	5-9	7	11	
	10-19 ^a	20	32	
	≥ 20	72	55	
For couples that undergo IVF, what is the probability of having a child after trying to conceive for the first time?	≤ 19	13	8	0.04
	20-29 ^a	7	11	
	30-39	14	6	
	≥ 40	66	75	

700 ^a the category that contains the correct answer according to published data