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ORIGINAL

PERCEPTION AND PARTICIPATION IN PHYSICAL EDUCATION OF WOMEN WITH ADOLESCENT PREGNANCY

PERCEPCIÓN Y PARTICIPACIÓN EN EDUCACIÓN FÍSICA DE MUJERES CON EMBARAZO ADOLESCENTE

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ABSTRACT

OBJECTIVE: To know the perception and participation in Physical Education classes (PE) of women between 18 and 30 years old pregnant during the school stage. **MATERIALS AND METHODS:** 111 women who were pregnant at school answered a questionnaire voluntarily. The questionnaire was specially designed for this research and validated through expert judgment. The study had a quantitative, retrospective, non-probability sampling approach. The analysis included Pearson's Chi-square test ($p < 0.05$). **RESULTS:** 31.5% of the participants participated in PE classes during pregnancy, but 75% stated that PE classes are beneficial for "fetal" and "newborn health." **CONCLUSION:** Despite the low participation in PE classes,

the respondents think physical exercise and PE classes during gestation help good embryonic development and newborn health.

KEYWORDS: Adolescent pregnancy; school physical education; educative community.

RESUMEN

OBJETIVO: Conocer la percepción y participación en clases de Educación Física (EFI) de mujeres entre 18 y 30 años que tuvieron embarazo adolescente durante la etapa escolar. **MATERIAL Y MÉTODOS:** 111 mujeres que tuvieron embarazo adolescente en la etapa escolar respondieron voluntariamente un cuestionario. El cuestionario fue diseñado especialmente para esta investigación y validado a través de juicio de experto. El estudio tuvo un enfoque cuantitativo, retrospectivo y con un muestreo no probabilístico. El análisis incluyó la prueba Chi-cuadrado de Pearson ($p < 0,05$). **RESULTADOS:** El 31,5% de las participantes realizó clases de EFI durante el embarazo, pero el 75% declaró que la EFI es beneficiosa para la “salud fetal” y “del recién nacido”. **CONCLUSIÓN:** Pese a la baja participación en clases de EFI, las encuestadas piensan que el ejercicio físico y clases de EFI durante la gestación ayudan a un buen desarrollo embrionario y a la salud del recién nacido.

PALABRAS CLAVE: Embarazo adolescente; educación física escolar; comunidad educativa.

INTRODUCTION

Adolescence is a stage of life between 10 and 19 years of age (Vicario & González-Fierro, 2014). During this stage, the person ceases to be a child and becomes an adult, generating a series of anatomical, physiological, and psychosocial changes (Hernández et al., 2014). Among these changes are the development of secondary sexual characteristics, the complete maturation of the gonads and adrenal glands, and the maximum acquisition of bone mass, fat tissue, and muscle mass (Vicario & González-Fierro, 2014). In parallel and due to these changes, adolescents also configure their body image (Duno & Acosta, 2019); this image corresponds to a complex construct rooted inside the self person. This concept was synthesized by Arrayás et al. (2018) (Arrayás Grajera et al., 2018) as the set of perceptions, thoughts, feelings, attitudes, and behaviors concerning one's own body and whose alterations can lead to emotional problems. On the other hand, during adolescence, the sexual phenomenon emerges, a phenomenon that, along with reaffirming the sexual and personal identity of adolescents, generates in this population a greater search for information related to the development of sexual organs, erotic themes, sexual desire, reproduction and sexual intercourse (Caricote, 2008).

The cultural changes experienced by Western adolescents in recent years have led to an earlier onset of coital life; this increase in sexual activity triggers an increase in the rate of unplanned pregnancies at this stage of life (Orcasita et al., 2018). In this sense, adolescent pregnancy occurs from menarche to 19 years of age and/or when the adolescent is still dependent on her family of origin (Barrozo & Pressiani,

2011). Data from the World Health Organization (WHO) have shown that 11% of all births are to adolescents between 15-19 years of age; furthermore, the same organization reported that most adolescent pregnancies are unwanted pregnancies (World Health Organization, 2017). In Latin America, between 15-25% of live newborns are born to mothers under 20 years of age (Organización Panamericana de la Salud, 2021), which is also associated with possible biological alterations in the mother and psychosocial problems for both parents (Donoso, 2011). In addition to the above, complications during pregnancy, "according to the WHO, complications during pregnancy and childbirth are the second leading cause of death among girls aged 15 to 19 years worldwide, while babies born to adolescent mothers face a significantly higher risk of dying than those born to women between 20 and 24 years of age" (Gobierno de Chile, 2017a).

During 2016, the adolescent fertility rate in Chile reached 34.3% of live births per 1,000 women aged 10-19 (Instituto Nacional de la Juventud, 2020). While in 2017, according to the latest Vital Statistics Yearbook published by the National Institute of Statistics of the Government of Chile (INE), 17,369 babies were born whose mothers were adolescents (3,801 babies less than in 2016); of these, 472 were to mothers under 15 years of age (Instituto Nacional de Estadísticas, 2019). Concerning unplanned pregnancies, the Ninth National Youth Survey reported that one in four young women (23.8%) had an unplanned pregnancy (Gobierno de Chile, 2019). These figures have led the Chilean government to consider adolescent pregnancy a severe public health problem (León et al., 2008). At the same time, school dropout is another problem that governments should address; in fact, the dropout rate in the Chilean educational system is 11.7% (Gobierno de Chile, 2017b). This gradual distancing and abandonment of a daily space (such as school), a situation that also implies the abandonment of certain personal and family rituals that affect the development of identity and personal projection (Flamey, 2006), would be increased by teenage pregnancy during the school stage. In this sense, those young people who have at least one child show substantially lower participation in the educational system, indicating that the condition of mother/father could anticipate the end of the scholar cycle (Gobierno de Chile, 2017a).

In the school context and to support pregnant adolescents, intervention policies have been created to avoid school dropouts (Dussailant, 2017). Within these public policies, Law 20.370 establishes that "schools of any level must provide academic and administrative facilities for pregnant women to enter and remain in the educational system" (Gobierno de Chile, 2009). It is also essential to highlight the importance of the integrated support of the entire educational community for pregnant adolescents, including Physical Education teachers (PE). They not only intervene in the transformation and adaptation of the curriculum in their area but must also intervene in cross-cutting prevention projects (Restrepo-Aristizábal & González-Palacio, 2019).

Specifically, it has been proven that this type of activity (which is associated with physical exercise before and during pregnancy) reduces the probability and severity of prenatal depression (Davenport, McCurdy, et al., 2018), reduces the likelihood of developing gestational diabetes mellitus, gestational hypertension, and preeclampsia

(Davenport, Ruchat, et al., 2018). It also reduces the probability of instrumental delivery in the general obstetric population (Davenport et al., 2019). Similarly, prenatal exercise has also been shown to be safe and beneficial for the fetus, reducing the likelihood of macrosomia (Davenport, Meah, et al., 2018). It decreases the risk of high birth weight and, thus, the chances of a dystocic delivery (Aguilar MJ et al., 2014). Likewise, physical exercise during pregnancy results in better adaptation of the fetal heart rate post-exercise and faster recovery (Roldan et al., 2015).

Despite the evidence showing the benefits of physical activity both for pregnant women (Davenport, McCurdy, et al., 2018; Davenport, Ruchat, et al., 2018; Davenport et al., 2019) and for fetal (Roldan et al., 2015) and newborn health (Aguilar MJ et al., 2014; Davenport, Meah, et al., 2018), most pregnant adolescents in the Chilean educational system do not engage in physical activity (Gobierno de Chile, 2019). The number of pregnant adolescents enrolled in PE classes is unknown. Although the school curriculum is flexible in these cases (Gobierno de Chile, 2009), the reasons for pregnant adolescents to participate or not to participate in this type of activity are also unknown. The lack of knowledge about the physical and psychological benefits of these practices may be one of the reasons for not taking PE classes. Consequently, the purpose of this study was to determine the perception and participation in PE classes of women between 18 and 30 years of age who became pregnant during their school years.

MATERIAL AND METHODS

Research Design

Research with a quantitative, selective-descriptive, non-probabilistic, retrospective cross-sectional approach, while the selected variables were evaluated through a questionnaire-type survey (Ato et al., 2013).

Procedures

As a first action, a questionnaire specially designed for the study was created (Annex 1). Then, all the participants who voluntarily accepted to be part of the study (non-probabilistic sample) were invited. The study's purpose and procedures were indicated in the informative talk, which was conducted in person. Once the participants agreed to be part of the study, the form (google.docs®) was sent to them through the digital platform of their choice (email, Facebook®, WhatsApp®, Twitter® or Instagram®). The inclusion criteria for the participants were the following: a) women between 18 and 30 years of age who had an adolescent pregnancy during their school years and b) who belonged to the public, half-private, or private schools. Exclusion criteria were women who had studied in an evening school or special "2 in 1" program. This exclusion criterion was because these programs (evening school or special 2 in 1-year) do not include PE classes. Therefore, these schools do not teach PE to their students.

Participants

A sample of 111 women who had been pregnant during their school years

volunteered to participate in this study (Table 1). Before applying the questionnaire, all doubts were resolved, and the participants were informed that their personal information and identities would be protected and that the data would be published anonymously. Since this was a survey applied to a Chilean population, approval by an ethics committee was not required; however, the study was carried out under the Declaration of Helsinki (WMA 2000, Bošnjak 2001, Tyebkhan 2003), which establishes the fundamental ethical principles for research with human beings.

Table 1. Current age and age at pregnancy reported by study participants.

Type of educational administration	n	%	Current age		Pregnancy age	
			mean ± SD	min – max	mean ± SD	min – max
Public	53	47.7	22.21 ± 2.92	18 – 30	16.62 ± 1.50	13 – 20
Half-private	54	48.6	22.52 ± 2.97	18 – 30	16.28 ± 1.36	13 – 20
Private	4	3.7	22.50 ± 3.69	18 – 26	15.25 ± 0.95	14 – 16
All	111	100	22.37 ± 2.95	18 – 30	16.40 ± 1.44	13 – 20

%; percentage; n: number of participants per category; SD: standard deviation.

Teen Pregnancy Questionnaire

This questionnaire was specially designed for the study. The entire research team (a Ph.D. in Physical Activity and Health and three PE teachers) participated in the design of the questionnaire. After the questionnaire was designed, it was submitted to expert judgment (Escobar-Pérez & Cuervo-Martínez, 2008). After reviewing the three curriculum and educational evaluation experts, all the necessary corrections were made for each expert to approve the questionnaire. The questionnaire was then transferred to a Google form (google.docs®) and sent through digital platforms to the participants. Specifically, this instrument lets us know the perception and participation in PE classes of women between 18 and 30 years of age who had teenage pregnancies during their school years. The questionnaire consists of three sections. The first section asks for personal information about the mother and child, the type of administration of the educational establishment, participation in PE classes, and the perception of discrimination during pregnancy. This questionnaire segment has open answers and dichotomous questions, and some with multiple choice (participants could choose one or more alternatives). The second part of the questionnaire inquires about the participants' perception of PE in pregnant women; it consists of four questions. Finally, the third part of the questionnaire asks about the participants' experiences in PE classes during pregnancy; this section has eight questions. The questions in the second and third sections are rated on a Likert scale with the following criteria: 0 = "strongly disagree", 1 = "disagree", 2 = "agree" and 3 = "strongly agree" (Annex 1). The internal consistency of the questionnaire, established by Cronbach's alpha test, was 0.789 (Cronbach, 1951).

Statistical analysis

The data from the first section of the questionnaire are presented with their mean

values and percentage representation. In addition, a Contingency Table with Pearson's Chi-square test was used to establish differences between the types of administration of the schools. The data from the second and third sections of the questionnaire were subjected to the Shapiro-Wilk normality test. To evaluate the internal structure of the questionnaire, the Cronbach's alpha test (Cronbach, 1951) was used. Then, to see the perceptions between women who did and did not take PE classes during pregnancy, a Contingency Table analysis was performed using the Pearson's Chi-square. Statistical analysis was performed with SPSS software. The significance level for all data was $p < 0.05$.

RESULTS

The first analysis showed that, of the 111 women who responded to the questionnaire, one had a pregnancy in sixth grade ($n = 1$), nine in eighth grade ($n = 9$), 17 in ninth grade ($n = 17$), 28 in tenth year ($n = 28$), 29 in eleventh year ($n = 29$) and 27 cases in twelfth year ($n = 27$). In this analysis, no significant differences were found between the types of administration of the schools ($p > 0.05$). The distribution of adolescent pregnancies in the school stage by grade and type of administration of the schools is reported in Table 2.

Table 2. School-level in which the adolescent was pregnant and type of administration of the school.

School		School-level						Total
		6th	8th	9th	10th	11th	12th	
Pub	Count	0	7	6	14	16	10	53
	Expected frequency	0.48	4.30	8.12	13.37	13.85	12.89	53.0
	% within the school	0.00	13.21	11.32	26.42	30.19	18.87	100.00
	% within the school level during pregnancy	0.00	77.78	35.29	50.00	55.17	37.04	47.75
	% of total	0.00	6.31	5.41	12.61	14.41	9.01	47.75
HP	Count	1	2	9	13	12	17	54
	Expected frequency	0.49	4.38	8.27	13.62	14.11	13.14	54.00
	% within the school	1.85	3.70	16.67	24.07	22.22	31.48	100.00
	% within the school level during pregnancy	100.00	22.22	52.94	46.43	41.38	62.96	48.65
	% of total	0.90	1.80	8.11	11.71	10.81	15.32	48.65
P	Count	0	0	2	1	1	0	4
	Expected frequency	0.04	0.32	0.61	1.01	1.05	0.97	4.00
	% within the school	0.00	0.00	50.00	25.00	25.00	0.00	100.00
	% within the school level during pregnancy	0.00	0.00	11.76	3.57	3.45	0.00	3.60
	% of total	0.00	0.00	1.80	0.90	0.90	0.00	3.60
Total	Count	1	9	17	28	29	27	111
	Expected frequency	1.00	9.00	17.00	28.00	29.00	27.00	111.00
	% within the school	0.90	8.11	15.32	25.23	26.13	24.32	100.00
	% within the school level during pregnancy	100.00	100.00	100.00	100.00	100.00	100.00	100.00
	% of total	0.90	8.11	15.32	25.23	26.13	24.32	100.00

Pub: public administration; HP: half-private administration; P: private administration; 6th: sixth grade; 8th: eighth grade; 9th: ninth grade; 10th: tenth grade; 11th: eleventh grade; 12th: twelfth grade; %: percentage.

At the end of the questionnaire application, 35 out of 111 participants (31.5%)

responded that they took PE classes during pregnancy. Likewise, 37 out of 111 participants (33.3%) answered that they felt discrimination by some agent of the educational community in this same period, including the management team, doctors, nurses, teachers, classmates, parents, or guardians. In this sense, the Pearson's Chi-square test calculated a $p = 0.021$ when relating participation in PE classes with some type of discrimination (Table 3).

Regarding the perception of physical exercise and PE in pregnant women, 75% of the respondents stated that they "agree" and "strongly agree" that pregnant women "should do physical exercise" and, in the case of students, the respondents stated that PE classes are beneficial for "fetal health" and "newborn health." At the same time, Pearson's chi-square test showed no significant differences between the types of administration of the schools for the four questions that make up the section of the questionnaire ($p > 0.05$). The responses and percentage distribution are reported in Table 4.

Table 3. Contingency analysis: Participated in PE classes during pregnancy vs. felt discrimination during pregnancy.

			Felt discrimination during pregnancy		Total
			No	Yes	
Participated in PE classes during pregnancy	No	Count	56	20	76
		Expected frequency (%)	50.7	25.3	76.0
	Yes	Count	18	17	35
		Expected frequency (%)	23.3	11.7	35.0
Total*	Count		74	37	111
	Expected frequency (%)		74.0	37.0	111.0

PE: Physical Education *: $p = 0.021$

Concerning physical exercise and participation in PE classes during pregnancy, 63.1% of the respondents stated that they did not engage in physical exercise, and 40.5% indicated that they did not engage in PE classes during that period (questions 6 and 7 of Table 5). Likewise, only 22.5% of the women who responded to the questionnaire stated that the PE teacher was a motivating agent for participating in PE classes. In this sense, 77% of the respondents answered that the PE teachers did not demonstrate competencies to conduct PE classes for pregnant students during the school stage. In comparison, 75% mentioned that these professionals also did not use differentiated methodologies to conduct PE classes for pregnant students during the school stage. Also, in this part of the questionnaire, it was evident that both the management team of the establishments (92%) and the physicians (69%) were influential agents for the students not to take PE classes during pregnancy. In parallel, the son's chi-square test showed no significant differences between the types of educational establishment management for the eight questions in this section ($p > 0.05$). The responses and percentage distribution are reported in Table 5.

Table 4. Percentage values on the perception of physical exercise and participation in PE classes during adolescent pregnancy at school.

Likert scale criteria	Question 1				Question 2				Question 3				Question 4			
	Pub	HP	P	T												
	<i>n</i> = 53	<i>n</i> = 54	<i>n</i> = 4	<i>n</i> = 111	<i>n</i> = 53	<i>n</i> = 54	<i>n</i> = 4	<i>n</i> = 111	<i>n</i> = 53	<i>n</i> = 54	<i>n</i> = 4	<i>n</i> = 111	<i>n</i> = 53	<i>n</i> = 54	<i>n</i> = 4	<i>n</i> = 111
Strongly disagree	13.2 %	3.7 %	0.0 %	8.1 %	13.2 %	7.4 %	0.0 %	9.9 %	15.0 %	7.4 %	25.0 %	11.7 %	17.0 %	11.1 %	0.0 %	13.5 %
Disagree	5.7 %	11.1 %	25.0 %	9.0 %	11.3 %	11.1 %	25.0 %	11.7 %	20.8 %	16.7 %	0.0 %	18.0 %	11.3 %	22.2 %	0.0 %	16.2 %
Agree	47.2 %	48.1 %	25.0 %	46.8 %	60.4 %	46.3 %	50.0 %	53.2 %	58.5 %	55.6 %	25.0 %	55.9 %	58.5 %	51.9 %	50.0 %	55.0 %
Strongly agree	33.9 %	37.1 %	50.0 %	36.1 %	15.1 %	35.2 %	25.0 %	25.2 %	5.7 %	20.3 %	50.0 %	14.4 %	13.2 %	14.8 %	50.0 %	15.3 %

Question 1: Pregnant women should perform physical exercise.

Question 2: Pregnant adolescent women should participate in PE classes.

Question 3: PE classes help embryonic development.

Question 4: Physical exercise during pregnancy helps the health of the newborn.

PE: Physical Education; Pub: public administration; HP: half-private administration; P: private administration; T: total cases.

Table 5. Percentage values on motivation and participation in PE classes during adolescent pregnancy in the school stage.

Likert scale criteria	Question 5				Question 6				Question 7				Question 8			
	Pub	HP	P	T												
	<i>n</i> = 53	<i>n</i> = 54	<i>n</i> = 4	<i>n</i> = 111	<i>n</i> = 53	<i>n</i> = 54	<i>n</i> = 4	<i>n</i> = 111	<i>n</i> = 53	<i>n</i> = 54	<i>n</i> = 4	<i>n</i> = 111	<i>n</i> = 53	<i>n</i> = 54	<i>n</i> = 4	<i>n</i> = 111
Strongly disagree	11.3 %	9.3 %	0.0 %	9.9 %	15.1 %	25.9 %	25.0 %	20.7 %	13.2 %	13.0 %	25.0 %	13.5 %	26.4 %	35.2 %	75.0 %	32.4 %
Disagree	32.1 %	25.9 %	0.0 %	27.9 %	43.4 %	40.7 %	50.0 %	42.4 %	32.1 %	24.1 %	0.0 %	27.0 %	54.7 %	38.9 %	0.0 %	45.1 %
Agree	26.4 %	33.3 %	25.0 %	29.7 %	35.9 %	27.8 %	0.0 %	30.6 %	32.1 %	40.7 %	25.0 %	36.1 %	15.1 %	22.2 %	25.0 %	18.9 %
Strongly agree	30.2 %	31.5 %	75.0 %	32.5 %	5.7 %	5.6 %	25.0 %	6.3 %	22.6 %	22.2 %	50.0 %	23.4 %	3.8 %	3.7 %	0.0 %	3.6 %
Likert scale criteria	Question 9				Question 10				Question 11				Question 12			
	Pub	HP	P	T												
	<i>n</i> = 53	<i>n</i> = 54	<i>n</i> = 4	<i>n</i> = 111	<i>n</i> = 53	<i>n</i> = 54	<i>n</i> = 4	<i>n</i> = 111	<i>n</i> = 53	<i>n</i> = 54	<i>n</i> = 4	<i>n</i> = 111	<i>n</i> = 53	<i>n</i> = 54	<i>n</i> = 4	<i>n</i> = 111
Strongly disagree	32.1 %	27.8 %	75.0 %	31.5 %	30.2 %	40.8 %	100 %	37.9 %	37.7 %	42.6 %	100 %	42.3 %	26.4 %	29.6 %	50.0 %	28.8 %
Disagree	45.3 %	50.0 %	25.0 %	46.9 %	43.4 %	37.0 %	0.0 %	38.7 %	54.7 %	50.0 %	0.0 %	50.5 %	45.3 %	37.0 %	25.0 %	40.6 %
Agree	20.8 %	13.0 %	0.0 %	16.2 %	20.8 %	16.7 %	0.0 %	18.0 %	3.8 %	7.4 %	0.0 %	5.4 %	22.6 %	27.8 %	0.0 %	24.3 %
Strongly agree	1.8 %	9.2 %	0.0 %	5.4 %	5.6 %	5.5 %	0.0 %	5.4 %	3.8 %	0.0 %	0.0 %	1.8 %	5.7 %	5.6 %	25.0 %	6.3 %

Question 5: I maintained a good and complication-free pregnancy.

Question 6: I exercised regularly before pregnancy (3 times per week).

Question 7: I participated in PE classes regularly before pregnancy.

Question 8: The PE teacher motivated me to participate in PE classes during pregnancy.

Question 9: The PE teacher was competent (knowledgeable) to conduct PE classes during my pregnancy.

Question 10: The PE teacher used different methodologies than my classmates to conduct PE classes during my pregnancy.

Question 11: The school's management team (Principal, Assistant Principal, or UTP) motivated me to participate in PE classes during pregnancy.

Question 12: My doctor motivated me to participate in PE classes during my pregnancy.

PE: physical education; Pub: public administration; HP: half-private administration; P: private administration; T: total number of cases; UTP: technical-pedagogical administration unit.

DISCUSSION

At the end of the study, the results showed that women who had an adolescent pregnancy thought they should have taken physical exercise and PE classes during pregnancy. They perceive that these activities could and can help good embryonic development and the health of the newborn. However, only 31.5% of the respondents stated that they participated in PE classes during pregnancy in the present study. Indeed, evidence has shown that 32-96% of pregnant women do not achieve the amount of physical activity recommended by internationally recognized guidelines (Santos et al., 2014). This alarming percentage of physical inactivity in pregnant women has been associated with an uncontrolled increase in the mother's body weight and an increased chance of dystocic delivery (Aguilar MJ et al., 2014). To these complications is added the age of the pregnancy, since if the mother is an adolescent, there is a greater risk of premature births or low birth weight babies (Cortes Castell et al., 2013). On the contrary, maintaining daily physical activities during pregnancy, including incorporating a physical training program for pregnant women (Mottola et al., 2018), acquires particular importance during this period. The anatomical and physical modifications experienced by the mother throughout the nine months of gestation (growth of the uterus, lumbar hyperlordosis, and a rotation of the pelvis concerning the femur) could be more bearable with a better physical condition (Aguilar MJ et al., 2014). In this sense, it has been shown that pregnant women who have followed a physical activity program during gestation are less likely to experience pathologies such as prenatal depression (Davenport, McCurdy, et al., 2018), gestational diabetes mellitus, gestational hypertension, or preeclampsia (Davenport, Ruchat, et al., 2018). In addition, they have a lower probability of experiencing perceptible physical alterations such as low back pain or pelvic girdle pain (Cardeñosa, 2012).

At the same time, more than 55% of the women who had an adolescent pregnancy during their school years stated that their pregnancy was "good and free of complications." Concerning this, research developed by González-Lorenzo et al. (González-Lorenzo et al., 2019) described clinical and epidemiological characteristics of pregnant Cuban adolescents; at the end of the study, the researchers reported that the primary diseases associated with pregnancy were anemia (50.43%), vaginal infection (41.74%) and urinary infection (20.87%). Likewise, only 5.22% of pregnant adolescents had no illnesses during pregnancy, while the remaining 94.78% had some illness associated with the gestational stage (González-Lorenzo et al., 2019). In this sense, and although it was not declared as an objective of the study, perhaps the disparity between the results reported by González-Lorenzo et al. (González-Lorenzo et al., 2019) and the results of the present investigation is due to the different socioeconomic characteristics and health systems of the two countries (Lavanderos et al., 2019). Indeed, a report by the National Institute of Youth (INJUV) shows that during the period 2010-2020, the "specific fertility rate" remained without significant alterations for the 10-14 years range. However, this same rate has slightly decreased for the 15-19 years range (Instituto Nacional de la Juventud, 2020). Perhaps, these last figures could be evidence of a possible impact of prevention programs on teenage pregnancy in the Chilean population.

Despite this evidence, which shows the benefits of physical exercise during pregnancy and the perception of participation in PE classes held by the participants in this study, more than 63% reported not doing physical exercise during pregnancy. More than 40% reported avoiding PE classes during the same period. In this sense, and based on the participants' responses, it was observed that the PE teachers did not influence the motivation of pregnant adolescents to take PE classes during pregnancy. In this concern, Cortés & Perea (Cortés JC & Perea ID Pilar, 2019) concluded that no person could be excluded or marginalized from PE classes. This discipline involves fundamental components of human nature so that the pedagogical work aimed at each particular human being must be adapted to their needs (Cortés JC & Perea ID Pilar, 2019). Therefore, according to the data from the survey, the PE teachers in this study were not important motivating agents for the pregnant adolescents who took PE classes during pregnancy. However, Restrepo-Aristizábal & González-Palacioya (Restrepo-Aristizábal & González-Palacio, 2019) concluded that the relationship between the PE teacher and the pregnant student is based on a good welcome and hospitality; consequently, the PE teacher feels a fundamental part of the pregnancy process.

Likewise, the participants stated that in their experience, PE teachers did not have the competencies to lead PE classes during pregnancy since they did not evidence differentiated methodologies during the gestation period. The evidence shows that the initial training of PE teachers lacks in topics related to pregnancy, even more so in adolescent pregnancy; for this reason, those PE teachers who have needed to attend to women with adolescent pregnancy have had to be trained in these topics (Restrepo-Aristizábal & González-Palacio, 2019).

In addition to the above, the participants mentioned that the schools' management team (principal, assistant principal, or the technical-pedagogical administration unit) and the treating physicians were the primary agents for pregnant students to avoid PE classes during pregnancy. Although the survey analyzes the perception and participation in PE classes during adolescent pregnancy at the school stage, we believe it is necessary to mention Article 11 of Law 20.370 of Chile. It states that: "Pregnancy and maternity shall in no case constitute an impediment to enter and remain in schools of any level, and the latter must provide the academic and administrative facilities that allow the fulfillment of both objectives" (Gobierno de Chile, 2009). For this reason, all the educational community agents must use all the instances to provide welfare to our students. Each educational establishment or its administrative supporters must train teachers or hire competent professionals to work with pregnant adolescents in school.

Limitations

Despite the information contained in this report, one of the study's limitations was the type of sample selected. This sample, being non-probabilistic by convenience, does not allow us to generalize the information to all women with adolescent pregnancy in the Chilean educational system. However, these same data have made it possible to highlight aspects of education that need to be addressed by the scholar community.

In addition, the retrospective nature of the research could have influenced the responses of the participants who had an adolescent pregnancy and are now adults. In this sense, mental maturation and the possible acquisition of knowledge related to pregnancy and physical exercise could have generated a more applied and mature perspective in the participants, triggering unbiased reasoning and opinions about the educational community and the experiences lived during teenage pregnancy at school.

CONCLUSION

At the end of the study, the women who had an adolescent pregnancy thought that physical exercise and PE classes during pregnancy could help embryonic development and the newborn's health.

Also, PE teachers did not play an essential role in motivating pregnant adolescents to participate in PE classes during pregnancy. Also, the respondents stated that the PE teachers were not competent to conduct PE classes during pregnancy. Finally, both the management team of the schools (principal, assistant principal, or the technical-pedagogical administration unit) and the treating physicians were the primary agents for pregnant students to avoid PE classes during pregnancy.

Conflict of Interest

The authors declare that they have no conflicts of interest.

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Student Survey

Teenage Pregnancy

This survey is intended for women who had a pregnancy while in school.

You were selected to participate in this study because you are a female, over 25 years old, and had a pregnancy during your school years.

The purpose of this survey is to learn about the perception and participation in Physical Education classes of women who were pregnant while in school.

This survey is anonymous. Your background, including your answers, will not be identified. The research team will keep the data, and, in the event of publication, only average values (without identification) will be presented.

We invite you to answer the following questions:

Full Name*:	
Email*:	
Phone*:	
Current age:	
Date of birth:	
Pregnancy age:	
How many weeks gestation were you when you found out about your pregnancy?	
School-level of pregnancy:	
Date of birth of your child:	
The current age of your child:	
Child sex:	MAN () WOMEN ()
School Name:	
Type of school:	
Public ()	Half-private () Private ()
Did you take Physical Education classes during your pregnancy? Mark your answer with an X	
YES ()	NO ()
If you took PE classes during pregnancy, up to what week of gestation did you participate in these classes?	
Week number: ____	It does not apply ()
If you did not take PE classes during pregnancy, mention which options best represents your reasons for not participating. Mark with an X for your answer. It can be more than one.	
a) The doctor suggested you not to take PE classes	b) Your parent or guardian suggested you not to take PE classes
c) You asked your parent or guardian not to take PE classes	d) You asked your doctor not to take PE classes
e) The EFI teacher asked you not to take PE classes	f) The school-management team (Principal, Assistant Principal or UTP) of the establishment asked you not to take PE classes
g) Other	
If you did not take PE classes during pregnancy, mention the school's alternatives to evaluate and grade this subject. Mark with an X your answer. It can be more than one.	
a) Theoretical assignments	b) Oral presentations

c) PE teacher assistance		d) Other		
Did you feel discriminated against during pregnancy? Mark your answer with an X		YES ()		NO ()
If your answer was "YES," you could mention by whom you felt discriminated against. Mark with an X your answer. It can be more than one.				
a) The doctor		b) Your tutor or parents		
c) The PE teacher		d) Your classmates		
e) The school-management team (Principal, Assistant Principal or UTP)		f) Others		
What action made you feel discriminated against?				
The following questions are intended to determine the perception you had and have about PE classes for pregnant women. We ask you to answer these questions whether or not you have taken PE classes. Each question should have only one answer.				
Perception questions on Physical Education and physical exercise in pregnant women and fetal health.	Strongly disagree	Disagree	Agree	Strongly agree
1. Pregnant women should exercise				
2. Pregnant adolescent women should take PE classes.				
3. PE classes help embryonic development.				
4. Physical exercise during pregnancy helps the health of the newborn baby.				
Questions on experiences in Physical Education classes during pregnancy	Strongly disagree	Disagree	Agree	Strongly agree
5. I maintained a good and complication-free pregnancy.				
6. I exercised regularly before pregnancy (3 times a week).				
7. I participated in PE classes regularly before pregnancy.				
8. I was motivated by the PE teacher to take PE classes during pregnancy.				
9. The PE teacher was competent (knowledgeable) to lead the PE class during my pregnancy.				
10. The PE teacher used alternative methodologies to conduct PE classes during my pregnancy.				
11. The school management team (Principal, Assistant Principal or UTP) motivated me to take PE classes during pregnancy.				
12. My doctor encouraged me to take PE classes during my pregnancy.				
<i>*Information requested and replaced by codes to protect the confidentiality of the data.</i>				