

Adolescent Pregnancy: Assessing Familism with Bardis Scale

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ABSTRACT

Introduction: Familism is a multidimensional cultural construction that gives importance to family ties. Study was done to estimate prevalence of familism and its link to psychosocial variables in pregnant adolescents who received prenatal care.

Material and Methods: A cross-sectional study that is part of the project “Gestación” was carried out. Four hundred and ninety-nine pregnant adolescents received obstetric care, completed sociodemographic characteristics forms and answered scales of religiosity, spirituality, family function, happiness, resilience and familism based on the Bardis scale in Cartagena, Colombia. Correlation was established among familism, sociodemographic and psychosocial variables. Multiple linear regressions were made to identify associated variables; $p < 0.05$ was significant.

Results: the average age was 17 years old. 41% of participants strongly agreed to give their parents their earnings, 84% obeyed siblings, 65% thought family is more important than personal interests, 75% defended family, 87% are loyal to family, 90% help their parents, 75% help their uncles, 74% help their parents in-law and 66% live with other relatives. There were significant factors related to greater familism: a higher level of resilience, sexual partner with secondary studies, having a functional family and three or more ultrasounds $p < 0.05$. Primary studies, not attending church, having a dysfunctional family and poor resilience were negative predictors of familism $p < 0.001$. There was significant positive correlation between spirituality and happiness with familism.

Conclusions: a high level of familism was observed in a group of pregnant adolescents. We recommend that healthcare professionals explore psychosocial aspects of teenage pregnancy to promote coping strategies regarding motherhood responsibilities.

Keywords: Pregnancy in Adolescence; Family; Epidemiologic Factors; Latin America.

INTRODUCTION

Familism is a value system that reflects respect for authority, maintenance of hierarchical relationships, and the acceptance that individual needs must be subjugated to obligations with the family, while obtaining benefits derived from union and cohesion.¹ Familism emphasizes the importance of family as a model for decision making, seeking social and emotional support. It has been considered a protective factor against health problems.¹ It can promote greater self-esteem in young people, act as a protective factor during times of crisis and psychological distress, and encourage growth and development.²

Adolescent pregnancy is a major worldwide health

problem, especially in less developed countries and among communities of low socioeconomic status. The World Health Organization³ asseverates that 16 million girls between 15 and 19 years old and approximately one million girls under the age of 15 give birth each year, 95% in low- and middle-income countries. Also, the WHO adds that adolescent pregnancy continues to be one of the main factors that contribute to maternal and infant mortality in the cycle of illness and poverty. Pregnancy in adolescence should not only be studied within the obstetric fields. Psychosocial aspects should also be widely addressed. Since familism can be used as a qualifier of health and illness conditions, it can be valuable to identify situations that could potentially be risk factors for the integrity of the pregnant woman and her child.⁴ Apparently, there are few studies about familism in pregnant teenagers from Latin American countries. The objective was to estimate the prevalence of aspects related to familism and the link between familism and psychosocial variables in pregnant adolescents who received prenatal care.

MATERIAL AND METHODS

A cross-sectional study which is part of the project “Gestación” was carried out. The information was collected by previously trained interviewers and nursing assistants, who used a printed form that included questions of sociodemographic aspects and several universally validated scales.

Participants: Pregnant adolescents between 10 to 19 years old, with more than ten weeks of amenorrhea and a confirmed diagnosis of pregnancy who went to outpatient antenatal care offices in Cartagena, Colombia. They were approached by the

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Age (years), Me [IR]	17,0 [2,0]
Gestational age (weeks), Me [IR]	29,0 [18,4]
Performed ultrasounds, Me [IR]	2,0 [2,0]
Age of sexual partner (years), Me [IR]	21,0 [4,0]
Early adolescence (<15 y), n (%) [CI95%]	21(4,2) [2,7-6,5]
Late adolescence (15-19 y), n (%) [CI95]	478 (95,8) [93,5-97,3]
Urban residence, n (%) [CI95]	362 (72,5) [68,4-76,4]
Rural residence, n (%) [CI95%]	137 (27,5) [23,6-31,6]
Hispanic, n (%) [CI95%]	483 (96,8) [94,7-98,1]
Afrodescendant, n (%) [CI95%]	16 (3,2) [1,9-5,3]
Medium-low socioeconomic stratum, n (%) [CI95%]	486 (97,4) [95,5-98,6]
Low socioeconomic stratum, n (%) [CI95%]	13 (2,6) [1,5-4,5]
In coexistence with sexual partner, n (%) [CI95%]	427 (85,6) [82,1-88,5]
Without coexistence with sexual partner, n (%) [CI95%]	72 (14,4) [11,5-17,9]
Higher education, n (%) [CI95%]	43 (8,6) [6,4-11,5]
Middle school, n (%) [CI95%]	223 (44,7) [40,3-49,2]
High school, n (%) [CI95%]	214 (42,9) [38,5-47,4]
Primary school, n (%) [CI95%]	19 (3,8) [2,4-6,0]
Student, n (%) [CI95%]	137 (27,5) [23,6-31,6]
Worker, n (%) [CI95%]	7 (1,4) [0,6-3,0]
Student and worker, n (%) [CI95%]	10 (2,0) [1,0-3,8]
Not working, n (%) [CI95%]	345 (69,1) [64,9-42,3]
Attend church regularly, n (%) [CI95%]	189 (37,9) [33,6-42,3]
First trimester of pregnancy, n (%) [CI95%]	88 (17,6) [14,5-21,3]
Second trimester of pregnancy, n (%) [CI95%]	128 (25,7) [21,9-29,8]
Third trimester of pregnancy, n (%) [CI95%]	283 (56,7) [52,2-61,1]
With previous ultrasounds, n (%) [CI95%]	448 (89,8) [86,7-92,2]
Less than three ultrasounds in pregnancy, n (%) [CI95%]	313 (62,7) [58,3-66,6]
Three or more ultrasounds in pregnancy, n (%) [CI95%]	186 (37,3) [33,1-41,7]
Pathology in pregnancy, n (%) [CI95%]	133 (26,7) [22,9-30,8]
Risk perception in pregnancy, n (%) [CI95%]	125 (25,1) [21,6-29,1]
Family support to pregnancy, n (%) [CI95%]	482 (96,6) [94,5-97,9]
History of alcohol consumption, n (%) [CI95%]	7 (1,4) [0,6-3,0]
History of smoking, n (%) [CI95%]	2 (0,4) [0,1-1,6]
History of partner violence in pregnancy, n (%) [CI95%]	26 (5,2) [3,5-7,6]
Low self-esteem, n (%) [CI95%]	14 (2,8) [1,6-4,8]
High self-esteem, n (%) [CI95%]	485 (97,2) [95,2-98,4]
Low resilience, n (%) [CI95%]	64 (12,8) [10,1-16,2]
Moderate resilience, n (%) [CI95%]	297 (59,5) [55,1-63,8]
High resilience, n (%) [CI95%]	138 (27,7) [23,8-31,8]
Highly functional family, n (%) [CI95%]	261 (52,3) [47,8-56,8]
Mildly dysfunctional family, n (%) [CI95%]	156 (31,3) [27,3-35,6]
Moderately dysfunctional family, n (%) [CI95%]	58 (11,6) [9,0-14,8]
Severely dysfunctional family, n (%) [CI95%]	24 (4,8) [3,2-7,2]
Two-parent family, n (%) [CI95%]	253 (50,7) [46,2-55,2]
Single-parent family, n (%) [CI95%]	201 (40,3) [36,0-44,7]
No parent, n (%) [CI95%]	45 (9,0) [6,7-12,0]
Partner support to pregnancy, n (%) [CI95%]	461 (92,4) [89,6-94,5]
Adolescent partner, n (%) [CI95%]	163 (32,7) [28,6-37,0]
Adult partner, n (%) [CI95%]	336 (67,3) [63,0-71,4]
Partner with higher education, n (%) [CI95%]	41 (8,2) [6,0-11,1]
Partner with middle schooling, n (%) [CI95%]	307 (61,5) [57,1-65,8]
Partner with high schooling, n (%) [CI95%]	137 (27,5) [23,6-31,6]
Partner with primary schooling, n (%) [CI95%]	13 (2,6) [1,5-4,5]
Age universal I-E scale-12 score, Me [IR]	30,0 [6,0]
Spiritual perspective scale score, Me [IR]	47,0 [11,0]
Subjective happiness scale score, Me [IR]	28,0 [5,0]
Resilience scale score, Me [IR]	140,0 [18,0]
Rosenberg self-esteem scale score, Me [IR]	29,0 [4,0]
Source: Risk factors questionnaire, Age universal I-E scale-12, Spiritual perspective scale, Bardis familism scale, family APGAR, Abuse Assessment Screen, Subjective happiness scale, Rosenberg self-esteem scale, Resilience scale.	
Table-1: Socio-demographic characteristics, n=499	

Item	Strongly disagree	Disagree	More dis-agreement than agree-ment	More agreement than disagreement	Agree	Strongly agree
	N (%) [CI95%]					
Children below 16 should give almost all their earnings to their parent	40 (8,0) [5,9-10,8]	81 (16,2) [13,2-19,8]	71 (14,2) [11,4-17,7]	102 (20,5) [17,0-24,3]	185 (37,1) [32,9-41,5]	20 (4,0) [2,5-6,2]
Children below 18 should always obey their older brothers and sisters	14 (2,8) [1,6-4,8]	21 (4,2) [2,7-6,5]	13 (2,6) [1,5-4,5]	32 (6,4) [4,5-9,0]	330 (66,1) [61,8-70,2]	89 (17,9) [14,6-21,5]
A person should always consider the needs of his family as a whole more important than his own	18 (3,6) [2,2-5,6]	47 (9,4) [7,1-12,4]	36 (7,2) [5,2-9,9]	72 (14,4) [11,5-17,9]	262 (52,5) [48,0-57,0]	64 (12,9) [10,1-16,2]
A person should always be expected to defend his family against outsiders even at the expense of his own personal safety	11 (2,2) [1,2-4,0]	27 (5,4) [3,7-7,9]	32 (6,4) [4,5-9,0]	50 (10,1) [7,6-13,1]	304 (60,9) [56,5-65,2]	75 (15,0) [12,1-18,5]
The family should have the right to control the behavior of each of its members completely	16 (3,2) [1,9-5,3]	28 (5,6) [3,8-8,1]	22 (4,4) [2,9-6,7]	44 (8,8) [6,6-11,7]	321 (64,3) [59,9-68,5]	68 (13,7) [10,8-17,0]
A person should always be completely loyal to his family	10 (2,0) [1,0-3,8]	17 (3,4) [2,1-5,5]	8 (1,6) [0,8-3,3]	28 (5,6) [3,8-8,1]	322 (64,5) [60,1-68,7]	114 (22,9) [19,3-26,8]
The members of a family should be expected to hold the same ideas	35 (7,0) [5,0-9,7]	118 (23,7) [20,0-27,7]	68 (13,6) [10,8-17,0]	40 (8,0) [5,9-10,8]	199 (39,9) [35,6-44,3]	39 (7,8) [5,7-10,6]
A person should always help his parents if necessary	10 (2,0) [1,0-3,8]	14 (2,8) [1,6-4,8]	4 (0,8) [0,3-2,2]	20 (4,0) [2,5-6,2]	292 (58,5) [54,0-62,9]	159 (31,9) [27,8-36,2]
A person should always support his uncles or aunts if they are in need	9 (1,8) [0,9-3,5]	23 (4,6) [3,0-6,9]	33 (6,6) [4,7-9,3]	59 (11,8) [9,2-15,1]	308 (61,7) [57,3-66,0]	67 (13,5) [10,6-16,8]
At least one married child should be expected to live in the parental home	37 (7,4) [5,3-10,2]	117 (23,5) [19,9-27,5]	73 (14,6) [11,7-18,1]	42 (8,4) [6,2-11,3]	200 (40,1) [35,8-44,5]	30 (6,0) [4,2-8,6]
A person should always support his parents-in-law if they are in need	10 (2,0) [1,0-3,8]	23 (4,6) [3,0-6,9]	31 (6,2) [4,3-8,8]	64 (12,9) [10,1-16,2]	315 (63,1) [58,7-67,3]	56 (11,2) [8,7-14,4]
A person should always share his home with his uncles, aunts, or first cousins if they are in need	23 (4,6) [3,0-6,9]	46 (9,2) [6,9-12,2]	46 (9,2) [6,9-12,2]	53 (10,7) [8,1-13,7]	275 (55,1) [50,6-59,5]	56 (11,2) [8,7-14,4]

Table-2: Bardis familism scale prevalence of aspects regarding the familism

Source: Bardis Familism Scale

interviewers in the waiting rooms, were given an explanation about the investigation, the components of the form and were encouraged to fill out forms anonymously and voluntarily. The forms were filled out and all the necessary time was provided for their completion. Pregnant adolescents who did not wish to participate, minors who did not have a companion or guardian by their side, those who had mental disorders or disabilities, as well as the illiterate ones, and those who did not understand the questions were not included in this study. All incomplete forms were excluded and destroyed.

Tools: A form divided into three parts was used. The first part requested sociodemographic information about the pregnant adolescent, about her sexual partner, as well as data about the couple's relationship. The second part explored familism by means of the Bardis scale⁵, a psychometric tool that measures the existence of familism through the degree of agreement or disagreement with certain statements that imply commitment, willingness to help, to obey or to be close to family. Each item has a score from 0 [total disagreement] to 5 [total agreement], with a maximum total score of 60. A higher score shows greater familism.

The third part of the form had scales to assess social situations. The spiritual perspective scale⁶ that evaluates a person's spiritual vision and the interactions related to spirituality, consists of 10 items, the higher the score, the greater their spirituality. Family APGAR⁷ allows assessing family functionality through five components: adaptation, participation, gradient of personal resources, affection and resources. The Abuse Assessment Screen⁸ identifies women who are victims of physical and sexual violence by means of five questions with yes or no answers. The Subjective Happiness Scale⁹ measures happiness by means of four items, a higher score shows greater the happiness. The Rosenberg Self-esteem Scale¹⁰ evaluates individual self-esteem through ten questions, a score within 25 to 35 points is normal. The Resilience scale¹¹ measures the level of resilience. It consists of 25 items. If it is greater than 147 it will indicate a higher resilience level. Finally, the Age Universal I-E scale-12¹² questionnaire assesses religious orientation, the higher the

score the lower the religiosity.

Sample size: The sample was estimated using Epidat-3.01, for an eligible population of 6428 pregnant adolescents, with an expected standard deviation of the familism score of 12,4 calculated by a pilot test, 95% confidence level, an absolute precision of 1,3 and a design effect of 1,5. The calculated sample was 498 pregnant adolescents.

Ethical aspects: Participation was voluntary. All adolescents and their custodians signed an informed consent prior to the application of the survey according to the Declaration of Helsinki. The custodian was always 18 years old or older, according to Colombian legal provisions. This research project was approved by the ethics committee of Universidad de Cartagena, Colombia.

STATISTICAL ANALYSIS

It was performed with IBM-SPSS-Statistics-22. The normality of the quantitative variables was assessed using the Kolmogorov-Smirnov test, obtaining a non-parametric distribution for all the variables. The data are expressed in median [Me] and interquartile range [IR] for continuous data, and absolute values, percentages and 95% confidence intervals for categorical data. The differences of the medians were made with the Mann-Whitney Test. The correlation was established between the dependent variable (familism) and independent variables (sociodemographic and psychosocial) using the Spearman correlation coefficient (ρ). Prediction of the score of the Bardis scale was established according to significant variables by means of a multiple linear regression; $p < 0.05$ was considered significant.

RESULTS

Four hundred and ninety-nine adolescents were observed. 50% of them were 17 years old or younger; 96% were Hispanic and the same proportion was present in late adolescence; 21 (4,2%) were under 15 years old; 85% had stable companions, less than a tenth had higher education and seven out of ten were unemployed. The fourth part was in the second trimester of pregnancy and nine out of

Item	Me [IR]
Children below 16 should give almost all their earnings to their parent	3,0 [2,0]
Children below 18 should almost always obey their older brothers and sisters	4,0 [0,0]
A person should always consider the needs of his family as a whole more important than his own	4,0 [1,0]
A person should always be expected to defend his family against outsiders even at the expense of his own personal safety	4,0 [0,0]
The family should have the right to control the behavior of each of its members completely	4,0 [0,0]
A person should always be completely loyal to his family	4,0 [0,0]
The members of a family should be expected to hold the same ideas	3,0 [3,0]
A person should always help his parents if necessary	4,0 [1,0]
A person should always support his uncles or aunts if they are in need	4,0 [0,0]
At least one married child should be expected to live in the parental home	3,0 [3,0]
A person should always support his parents-in-law if they are in need	4,0 [1,0]
A person should always share his home with his uncles, aunts, or first cousins if they are in need	4,0 [1,0]
Total score	43,0 [9,0]

Source: Bardis Familism Scale

Table-3: Bardis familism scale score

Characteristics	Me [IR]	p (*)
Early adolescence	44,0 [6,5]	0,208
Late adolescence	43,0 [9,5]	
Urban residence	44,0 [8,5]	0,156
Rural residence	42,0 [10,0]	
Hispanic	43,0 [9,0]	0,593
Afrodescendant	42,5 [13,0]	
Medium-low socioeconomic stratum	43,5 [9,0]	0,236
Low socioeconomic stratum	37,0 [16,5]	
In coexistence with sexual partner	43,0 [9,0]	0,904
Without coexistence with sexual partner,	43,0 [9,0]	
Higher education	39,0 [10,5]	<0,001
Middle school	42,0 [11,0]	
High school	45,0 [7,5]	
Primary school	48,0 [3,5]	
Student	43,0 [9,0]	0,376
Worker	46,0 [7,5]	
Student and worker	39,5 [8,0]	
Not working	44,0 [10,0]	
Attend church regularly	42,0 [11,0]	<0,001
Not attend church regularly	45,0 [9,0]	
First trimester of pregnancy	44,0 [10,0]	0,127
Second trimester of pregnancy	44,0 [9,5]	
Third trimester of pregnancy	43,0 [10,0]	
With previous ultrasounds	43,0 [9,5]	0,135
Without previous ultrasounds	45,0 [9,0]	
Pathology in pregnancy	44,0 [9,5]	0,799
Without pathology in pregnancy	42,0 [9,5]	
Risk perception in pregnancy	43,0 [9,0]	0,856
Without risk perception in pregnancy	44,0 [8,5]	
Less than three ultrasounds in pregnancy	42 [11,0]	<0,001
Three or more ultrasounds in pregnancy	44,0 [9,5]	
Family support to pregnancy	43,0 [9,0]	0,431
Without family support to pregnancy	42,0 [17,0]	
Partner support to pregnancy	44,0 [9,5]	0,670
Without partner support to pregnancy	42,5 [10,0]	
Two-parent family	44,0 [9,0]	0,792
Single-parent family	43,0 [9,5]	
No parent	42,0 [8,5]	
Highly functional family	45,0 [8,5]	<0,001
Mildly dysfunctional family	42,0 [8,5]	
Moderately dysfunctional family	42,5 [10,5]	
Severely dysfunctional family	40,5 [14,0]	
History of partner violence in pregnancy	40,0 [10,5]	0,089
Without history of partner violence in pregnancy	44,0 [9,5]	
Low self-esteem	37,5 [16,0]	0,229
High self-esteem	44,0 [9,0]	
Low resilience	36,5 [15,0]	<0,001
Moderate resilience	44,0 [7,5]	
High resilience	44,5 [9,0]	
Adolescent partner	44,0 [9,5]	0,405
Adult partner	43,0 [8,5]	

*P values as determined with the Mann-Whitney U test

Source: Risk factors questionnaire, Age universal I-E scale-12, Spiritual perspective scale, Bardis familism scale, family APGAR, Abuse Assessment Screen, Subjective happiness scale, Rosenberg self-esteem scale, Resilience scale.

Table-4: Bardis familism scale comparison of scores

	Rho	p*
Age of the pregnant woman	-0,148	0,001
Age of partner	-0,020	0,655
Week of gestation	-0,040	0,374
Religiosity	-0,070	0,120
Spiritual perspective	0,216	<0,001
Subjective happiness	0,244	<0,001
Resilience	0,248	<0,001
self-esteem	-0,138	0,002
Number of ultrasounds performed	-0,134	0,003
Family Apgar	0,202	<0,001

*P values as determined with Spearman coefficient correlation
Source: Risk factors questionnaire, Age universal I-E scale-12, Spiritual perspective scale, Bardis familism scale, family APGAR, Subjective happiness scale, Rosenberg self-esteem scale, Resilience scale.

Table-5: Correlation coefficients for familism

	Bardis Familism Scale score	
	β_1 (*)	P(**)
Age of the pregnant woman	-0,179	0,512
Spiritual perspective scale	0,218	<0,001
Subjective happiness scale	0,088	0,404
Higher education	1	=
Middle school	2,190	0,106
High school	3,697	0,013
Primary school	7,404	0,002
Attend church regularly	1	=
Not attend church regularly	2,341	0,002
Three or more ultrasounds in pregnancy	1	=
Less than three ultrasounds in pregnancy	1,304	0,088
Highly functional family	1	=
Mildly dysfunctional family	0,301	0,771
Moderately dysfunctional family	0,088	0,966
Severely dysfunctional family	-6,225	<0,001
High resilience	1	=
Moderate resilience	-1,191	0,160
Low resilience	-7,201	<0,001
High self-esteem	1	=
Low self-esteem	-1,338	0,547
Partner with higher education	1	=
Partner with middle schooling	2,318	0,089
Partner with high schooling	1,502	0,315
Partner with primary schooling	-0,151	0,954

Source: risk factors questionnaire, Spiritual perspective scale, Bardis familism scale, family APGAR, Subjective happiness scale, Resilience scale.
(*) β_1 adjusted for age, spirituality, happiness, schooling, attendance at church, number of ultrasound, family function, level of resilience, level of self-esteem and schooling of the partner
(**) Value of p as determined by multiple linear regression

Table-6: Prediction of familism scale score. Multiple linear regression

ten received prenatal care at least once. Most of their sexual partners were adults (Table 1).

Table 2 presents prevalence of aspects about familism: 84% agreed or strongly agreed to obey siblings. At the same time, two thirds pointed out that family is more important than personal matters; 75% agreed with defending family,

helping uncles and parents in-law. The median of the scale's total score was 43,0 and the items with the lowest score or worst prevalence were the following: children under 16 years-old who gave almost all their earnings to their parents, the thought that all family members are expected to hold the same ideas and at least one married child was expected to live in the parental home (Table 3).

A higher score in the Bardis scale was observed in pregnant adolescents who had attended primary school and in those who did not go to church. Those who had three or more ultrasounds belonged to highly functional family and had a higher level of resilience (Table 4). A negative, weak and significant correlation coefficient was obtained regarding the score of Bardis scale with the age of the pregnant woman, her self-esteem and number of ultrasounds performed. The coefficient of correlation of familism with spirituality, happiness, resilience and family APGAR was positive and significant (Table 5). It was estimated that for every point on the spirituality scale there was an increase of 0,214 points on the Bardis scale ($p < 0,001$). On the contrary, to have a severely dysfunctional family and low level of resilience decreased the score of this scale by 6,189 points and 7,262 points respectively ($p < 0,001$) (Table 6).

DISCUSSION

The measures adopted have been ineffective in reducing adolescent pregnancy. The problem continues to affect millions of young people with mothers or sisters who became pregnant during adolescence, have low self-esteem, low level of resilience and belong to lower socio-economic status. Getting pregnant repeatedly through their adolescence causes conditions that lead to vulnerability and loss of social mobility.¹³ Pregnancy in adolescence results in: unwanted pregnancy, induced abortion under risky conditions, very young mothers who must fulfill commitments of responsible motherhood and unwanted children, to name a few.¹⁴

From the psychosocial point of view, the multidimensional concept called familism is a value strongly rooted in Latin American culture, in which the family unit is above personal autonomy and individualism. This entails feelings of loyalty, reciprocity and solidarity.¹⁵ Familism can be contextualized taking into account communities' norms, values, functioning, satisfaction, support, importance and social identity.¹⁶ The data obtained indicates an important internalization of the basic components of familism, which are articulated with the classical connotation of family and satisfy its members' basic needs while providing cultural precepts, spiritual or religious influences, as well as customs or traditions. However, the presence of this magnitude of familism was not enough to generate a different life perspective, which could help to avoid pregnancy at a young age, even if it is sought and desired, teenage pregnancy generates personal and social limitations.

Although it seems that the classical integrity of the family is less interesting in today's society, higher levels of familism among adolescents studied and belonging to low socioeconomic level can be explained by what some authors

have affirmed about Latino adolescents. They tend to avoid conflict and maintain harmony with their family members, depending on them and supporting them in adverse situations. Their families are the foundation of their identity and self-esteem. Familism often plays a fundamental role in interpersonal and family relationships.¹⁷

Among the many conditions that contribute to pregnancy in adolescence, is being part of a dysfunctional family and the low acceptance of traditional family values which reduced intrafamilial communication especially with mother figures. However, it was observed that 96,6% of those studied, recognized the existence of family support during pregnancy and nine out of ten reported having support from their partner. In one study 81,1% lived with their partner (married/cohabiting).¹⁸ For his part, Wilson-Mitchell¹⁹ observed that 60% of pregnant teenagers had a partner at the time of the study and only 28,6% did not maintain their relationship after pregnancy. This can be interpreted as a positive indicator, because pregnancy in adolescence is a serious social and medical problem, which should not only be approached from the obstetric field. All of the above suggests that factors that favor pregnancy in adolescence have an immense influence on the reality of young women, so they could be avoided with aspects related to familism.

Family support is the perception that members of the family are trusted contributors and help to solve different problems. The perception of family support is one of the key components of familism in Latin American communities, where, unlike North American ones, the family serves as an accompaniment system for its members, providing physical, emotional and social support.²⁰ This was observed in the adolescents studied. For Latino culture family ties promote closer support and connection among family members; and pregnant women tend to take better care of their pregnancy by feeling that their closest friends provide support and accompaniment in their needs.²¹

It was observed that slightly more than half of the participants had a well-functioning family, similar to those found by Zambrano in pregnant teenagers, which was 46%.²² Rangel *et al.* observed that 67% of pregnant adolescents belonged to a functional family.²³ The cultural and social environments the studied adolescents belong to show patterns and structures of classic functional family units that are usually passed on from one generation to another and are usually preserved, although new currents or customs are reducing their presence. It was observed that pregnant teenagers with severely dysfunctional family had lower familism. Communication and cohesion, characteristics of familism, favor family functioning, the quality of attachment and fraternal relations.

Studies are needed to define whether this functional family environment could be used as a laboratory that encourages responsible decision-making, promotes maturity, trust, affection, solidarity and a committed approach to sexuality in adolescents to prevent pregnancies at an early age or in those who must face pregnancy and early motherhood. Families and schools can take action and implement tools to prevent social factors that favor pregnancy in adolescence:

school desertion, personal and social despair, scarcity of life projects, early start of sexual activity and lack of adequate knowledge and use of family planning methods.¹⁴ There are plenty of incentives that strongly encourage young people's sexual activity, especially from advertising in the media. Only a solid non-genital sex education, non-prohibitionist, without repressions and without punitive family or school actions can generate decision-making abilities, personal maturity and emotional intelligence for the adolescent to decide when to start sexual activity and use appropriate contraception methods.²⁴ No studies were identified in which familism or family support was explored as a tool for preventing pregnancy in adolescence or to strengthen the concepts of responsible motherhood.

More than 60% of pregnant adolescents agreed/strongly agreed with most of Bardis scale's items. If aspects of familism are involved in plans for pregnancy prevention in adolescence or in the approach to early motherhood, they cannot be global, they must respond to the vision of the communities where they are applied. In Latin American families, spiritual and religious practices usually identify and unite family members, creating strong bonds among them. Different religious rites increase close relatives' responsibility. Religiosity is often focused on behaviors such as attending church, reading religious scriptures and seeking support from a religious leader²⁵; surprisingly, it was found that not attending church was related to a higher level of familism in analyzed pregnant adolescents. On the other hand, it was observed that spirituality positively predicted familism so the greater their spirituality, the greater their familism. Spirituality is aimed at exploring the conception of a being or universal consciousness of an individual. Spirituality is independent of religious beliefs and is often expressed through Latin American cultural values of the.²⁶ Pregnant adolescents studied who had secondary or primary schooling had a higher score on the Bardis familism scale than those who had higher schooling, which could perhaps be explained by a distancing or by the perception of a lower need for dependency or family support, as education level increases. However, another study²⁷ showed how familism values remain with the educational adjustment in adolescent mothers, improving their performance, which led them to have a healthier and more productive environment.

Familism score was significantly lower in pregnant women who had a lower level of resilience. Latin American women have a positive attitude towards pregnancy and motherhood, with less anxiety, which is consistent with familism values.²⁸ Familism can be an exogenous resilience factor that indirectly plays a role in social support and possibly stress and anxiety control, because cultural ideals based on positive relationships make it easier for people to seek, receive and benefit from social support, and this helps to get rid of the effects of stress and anxiety, which is mainly associated with Latin women instead of North American or European ones¹⁶ It's a more prevalent condition.

The relationship between pregnant women and health services may be influenced by their family, since the latter

provide references about the right places to go and time to obtain maternal care.²⁹ It was observed that those pregnant women who had not initiated their prenatal control or did not initiate it early, had less familism, which is consistent with Luecken's view, who argues that characteristics of familism can promote early search for care, help and prenatal care. They found significant negative correlation between the week prenatal control started and the familism score. It was also observed that familism is a protective factor to initiate prenatal control in the first trimester.³⁰ Another study²¹ observed that adolescents with at least three obstetric ultrasounds had a significantly higher familism scale score than those with a lower number of evaluations. Links between familism and diet, exercise, prenatal care, and getting professional healthcare were reported.³¹

Latin American adolescent or adult mothers often rely on family members, especially their parents, grandmothers, aunts and even mothers-in-law, who play caregiver roles during the transition to motherhood.³² Therefore, conditions related to familism should be studied during medical prenatal control.

This study has limitations as those of cross-sectional studies. Findings are specific to the group of pregnant adolescents studied and should not necessarily be extrapolated to other communities. This is one of the first studies that includes familism aspects in pregnant teenagers in the Colombian Caribbean region and quantitatively measures prevalence of sensitive aspects such as resilience, happiness, spirituality, religiosity, self-esteem, family functionality and partner violence, presenting links with familism, which provides information that must be considered when taking care of these adolescents. Follow-up and intervention studies, both quantitative and qualitative, are warranted to establish whether the presence of familism can be proposed as a coadjutant tool that leads to a greater reduction in teenage pregnancy prevalence or to strengthen the aspects pertaining to maternity even if it happens at an early age.

It is recommended that physicians and nurses, who take care of pregnant adolescents, explore aspects regarding familism. Government assistance entities that generate education policies and care for young people must reinforce aspects related to familism with the expectation of generating favorable conditions to efficiently promote responsibilities that motherhood entails when pregnancy occurs at an early age.

CONCLUSION

High percentages of favorable opinions on aspects related to familism were found in pregnant teenagers. Spirituality, happiness and resilience were positively correlated with familism, while age and self-esteem were negatively correlated.

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REFERENCES

- Hernández MM, Bámaca-Colbert MY. A Behavioral Process Model of Familism. *J Fam Theory Rev.* 2016;8:463-483.
- Valdivieso-Mora E, Peet C, Garnier-Villarreal M, Salazar-Villanea M, Johnson D. A Systematic review of the relationship between familism and mental health outcomes in Latino population. *Front Psychol.* 2016;7:1-13.
- World Health Organization [WHO] Adolescent pregnancy. [2-enero-2019]: <https://www.who.int/news-room/fact-sheets/detail/adolescent-pregnancy>
- Maupome G, McConnell WR, Perry BL. Dental problems and familismo: social network discussion of oral health issues among adults of Mexican origin living in the Midwest United States. *Community Dent Health.* 2016;33:303-308.
- Bardis PD. A familism scale. *Marriage & Family Living.* 1959;21: 340-341.
- Reed PG. Religiousness among terminally ill and healthy adults. *Research in Nursing & Health.* 1986;9:35-41.
- Smilkstein G. The family APGAR: A proposal for a family function test and its used by physicians. *J Fam Pract.* 1978;6:12-31.
- McFarlane J, Parker B, Soeken K, Bullock L. Assessing for abuse during pregnancy: severity and frequency of injuries and associated entry into prenatal care. *JAMA.* 1992;267:3176-3178.
- Lyubomirsky S, Lepper HS. A measure of subjective happiness: preliminary reliability and construct validation. *Soc Indic Res.* 1999;46:137-155.
- Rosenberg M. *Society and the adolescent self-image.* University Press, Princeton. [3-february 2018]: <https://www.casadellibro.com/ebook-society-and-the-adolescent-self-image-ebook/9781400876136/3073072>.
- Wagnild GM, Young HM. Development and psychometric evaluation of the Resilience Scale. *Journal of Nursing Measurement.* 1993;1:165-178.
- Maltby J. The Age Universal I-E Scale-12 and orientation toward religion: Confirmatory factor analysis. *The Journal of Psychology.* 2002;136:555-560.
- United Nations Population Fund [UNFPA]. Adolescent pregnancy. [28-diciembre-2018]: <https://www.unfpa.org/adolescent-pregnancy>
- United Nations Population Fund [UNFPA]. Motherhood in Childhood Facing the challenge of adolescent pregnancy. [29-diciembre-2018]: <https://www.unfpa.org/sites/default/files/pub-pdf/EN-SWOP2013.pdf>
- Ayon C, Marsiglia FF, Bermudez-Parsai M. Latino family mental health: exploring the role of discrimination and familismo. *J Community Psychol.* 2010;38:742-756.
- Campos B, Schetter CD, Abdou CM, Hobel CJ, Glynn LM, Sandman CA. Familism, social support, and stress: positive implications for pregnant Latinas. *Cultur Divers Ethnic Minor Psychol.* 2008;14:155-162.
- Muñoz-Laboy M, Leau C, Sriram X, Weinstein H, Vásquez del Aguila E, Parker R. Negotiating bisexual

- desire and familism: the case of Latino/a bisexual young men and women in New York City. *Cult Health Sex.* 2009;11:331-344.
18. Lam N, Contreras H, Cuesta F, Mori E, Cordori J, Carrillo N. (2008). Resiliencia y apoyo social frente a trastornos depresivos en gestantes sometidas a violencia de género. *Revista Peruana de Epidemiología.* 2008;12:1-8.
 19. Wilson-Mitchell K, Bennett J, Stennett R. Psychological health and life experiences of pregnant adolescent mothers in Jamaica. *Int J Environ Res Public Health.* 2014;11:4729-4744.
 20. Tsai KM, Gonzales NA, Fuligni AJ. Mexican American adolescents' emotional support to the family in response to parental stress. *J Res Adolesc.* 2016;26: 658-672.
 21. Feldman JB The effect of support expectations on prenatal attachment: an evidence-based approach for intervention in an adolescent population. *Child Adolesc Soc Work J.* 2007;24:209-234.
 22. Zambrano-Plata GE, Vera-León SF, Flórez-Ortega LY. Relationship between family functioning and coping strategies used by pregnant adolescents. *Revista Ciencia y cuidado.* 2012;9: 9-16.
 23. Rangel JL, Valerio L, Patiño J, García M. Funcionalidad familiar en la adolescente embarazada. *Rev Fac Med UNAM.* 2004;47:24-27.
 24. National Research Council. Panel on Adolescent Pregnancy and Childbearing; Hofferth SL, Hayes CD, editors. *Risking the Future: Adolescent Sexuality, Pregnancy, and Childbearing, Volume II: Working Papers and Statistical Appendices.* Washington (DC): National Academies Press (US); 1987. Chapter 9, the effects of programs and policies on adolescent pregnancy and childbearing. [3-enero-2019]:
 25. Campesino M, Schwartz GE. Spirituality among Latinas/os implications of culture in conceptualization and measurement. *ANS Adv Nurs Sci.* 2006;29:69-81.
 26. Castellanos J, Gloria AM. Latina/os-Drive, community and spirituality: The strength within (SOMOS Latina/os-Ganas, comunidad y el espíritu: La fuerza que llevamos por dentro). In: Chang, E., Downey, C., Hirsch, J., Lin, N., eds. *Positive psychology in racial and ethnic groups: Theory, research, and practice.* P: 61-82. Washington, DC. American Psychological Association. 2016.
 27. Bravo DY, Umaña-Taylor AJ, Guimond AB, Updegraff KA, Jahromi LB. Familism, family ethnic socialization, and Mexican-origin adolescent mothers' educational adjustment. *Cultur Divers Ethnic Minor Psychol.* 2014;20:389-400.
 28. Feldman JB, Pittman S. Adolescent pregnancy along the Texas, Mexico border: a systematic analysis of risk and resiliency in a Mexican American population. *Perspectivas sociales.* 2008;10:29-52.
 29. Gurman TA, Becker D. Factors affecting Latina immigrants' perceptions of maternal health care: findings from a qualitative study. *Health Care Women Int.* 2008;29:507-526.
 30. Luecken LJ, Purdom CL, Howe R. Prenatal care initiation in low-income hispanic women: risk and protective factors. *Am J Health Behav.* 2009;33:264-275.
 31. Katiria Perez G, Cruess D. The impact of familism on physical and mental health among Hispanics in the United States. *Health Psychol Rev.* 2014;8:95-127.
 32. Zeiders K, Umaña-Taylor A, Jahromi L, Updegraff K. Grandmothers' familism values, adolescent mothers' parenting efficacy, and children's well-being. *J Fam Psychol.* 2015;29:624-634.

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