

135 - SECULAR TRENDS OF NUTRITIONAL STATUS OF ADOLESCENTS IN PITIMBÚ, SOUTH COAST OF PARAÍBA (BRAZIL): TRANSITION OF 2004 TO 2007

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INTRODUCTION

In the last decades, transformations demographic, economical, social, cultural and technological are propitiating significant changes in the profile of morbidity of the modern societies. This way, the economical development in most of the countries favored the urbanization of the cities and rural exodus, determining substantial modifications in the lifestyle, reflecting debatable alimentary patterns and occupation models predominantly sedentary to favor of positive energy swinging and, consequently, the tendency to the deficit decrease weight-stature and the development of weight excess in children and in preadolescents and adolescents (SUÑE et al., 2007).

Recently, the nutritional patterns constitute one of the instruments more thoroughly used in the attendance to the youths' health, so much in the clinical area, as in the extent of the public health. In synthesis, the nutritional evaluation involves comparison of physical measures observed with expressed reference values in tables and curves. As in other countries, Brazil has been presenting deep modifications in the nutritional profile of his/her population, fruit of a known process as nutritional transition or secular change (POPKIN, 2001).

For Batista Filho; Rissin (2003), starting from 1980, it was begun to have conscience that other nutritional problems were expanding, characterized as: overweight and obesity. Like this, the monitoring of the nutritional status is underneath an important tool to detect precocious alterations weight or excess (obesity), and they implicate individually in potential risks of offences to the health and collectively. So much in Brazil, as in Latin America, studies that you/they monitor the nutritional prevalence's they have been deserving special attention on the part of some specialists. However, in if treating of the regionalization of the sample of these studies, it is noticed that great part of the works on that theme (ANGELS et al., 2003), it has been privileging the originating from population the south and southeast area of the country, being the areas North and Northeast, strange to the process of construction of references on this theme.

In this perspective, the knowledge of the tendency of the nutritional pattern during the phase of the adolescence can contribute to a better understanding of these conditions, propitiating information for precocious interventions and promotion of the health of the young population. This way, starting from everything that was exposed becomes indispensable in this context, disposal of basic information about the adolescents' of Pitimbú nutritional transition (PB) during period of 2004 to 2007.

MATERIAL AND METHODS

It is treated of an epidemic study of school base and multiple traverse cut by analyzing the nutritional temporary tendency in four periods of different time.

POPULATION AND SAMPLE

The population had school base due to the easiness of containing the youths was esteemed approximately in 2.000 adolescents. The sample was constituted by 1093 subjects between 10 and 17 years both sexes, enrolled in the net of municipal teaching of Pitimbú during from 2004 to 2007. The sampling was selected by the method probabilistic starting from the listing of the schools and enrolled. The calculations were used for finite population with $p=50\%$ and mistakes of estimate of 4%, level of trust of 95% (RICHARDSON et al., 1999).

INSTRUMENTS USED IN THE RESEARCH

For the evaluation anthropometric a scale of the mark was used Camry (150kg and division in 0,1g) to measure the corporal mass and a portable estadiometer I model *Sanny* (204cm) for the stature. Through those measures the Index of Corporal Mass was set out (IMC). The classification of the nutritional status followed CDC (2000) considering the age and sex. The points of cut of the percentis (of IMC) they proceeded to the recommendations of OMS (1995):

?Low Weight: <P5; ? Eutrofic: between P10 and P85; ? Weight excess: > P85.

PROCEDURES FOR COLLECTION OF DATA

Annually, since 2004 up to 2007 was made contact with the General office of Education and Culture of Pitimbú, where it was requested the authorization for the evaluation anthropometric, being this always accomplished in schedule of morning in the moment of the physical education classes. All parents were informed of the procedures and objectives of the evaluation for the research, also of possible discomforts, risks and benefits, authorizing in writing according to the Resolution nº196/96. The necessary measures for the nutritional evaluation were accomplished by two specialist teachers in the routine of physical evaluation, and all of instruments were gaged previously to minimize the gauging inclinations. The analysis of the data was accomplished starting from descriptive statistics. The comparison inferential among sexes was accomplished through test t and the variance analysis (ANOVA) and post hoc Sheffé for given interperiod. The data were processed in SPSS version 13.0; and the significance was $p < 0,05$.

RESULTS

In the table 1 it is seen the descriptive values of central tendency. The changes didn't present statistical significance, however a disposition is observed to the increase pondered in the investigated adolescents' nutritional status.

Table 1 - Average, standard deviation (SD), minimum, maximum and medium of body mass, stature and Index Body Mass (IMC) of adolescents of both sexes of Pitimbú, 2004 to 2007.

Year	Male					Female				
	n	Mean±SD	Mínimo	Maximum	Median	n	Mean±SD	Mínimo	Maximum	Mediana
Body mass (kg)										
2004	108	41,4±10,0	23,6	70,2	38,5	112	44,2±8,8	26,6	62,5	43,4
2005	88	42,3±10,2	23,7	64,4	41,7	159	44,1±9,2	26,7	64,9	43,4
2006	175	42,7±10,5	21,7	68,7	41,0	206	44,4±9,4	23,6	71,0	45,0
2007	104	42,7±10,8	23,6	78,4	40,7	141	45,2±11,1	28,1	76,9	44,1
p	0,739						0,803			
Total	475	42,3±10,4	21,7	78,4	40,7	618	44,5±9,6	26,2	68,8	44,1
Stature (m)										
2004	108	1,51±0,10	1,27	1,75	1,50	112	1,52±0,07	1,36	1,65	1,54
2005	88	1,52±0,11	1,27	1,76	1,52	159	1,52±0,08	1,26	1,79	1,54
2006	175	1,52±0,11	1,22	1,83	1,52	206	1,52±0,09	1,26	1,71	1,54
2007	104	1,52±0,12	1,26	1,84	1,50	141	1,53±0,09	1,31	1,73	1,53
p	0,462						0,983			
Total	475	1,52±0,11	1,22	1,84	1,51	618	1,52±0,08	1,29	1,72	1,54
Body Mass Index (kg/m²)										
2004	108	17,8±2,5	14,2	27,1	17,6	112	18,8±2,8	14,1	28,1	18,4
2005	88	17,9±2,3	13,9	24,2	17,6	159	18,9±2,9	13,9	28,6	18,6
2006	175	18,0±2,4	10,2	18,1	17,7	206	18,9±2,8	13,6	28,7	18,8
2007	104	18,4±2,9	14,2	28,4	17,8	141	19,1±3,1	13,8	28,1	18,7
p	0,326						0,900			
Total	475	18,0±2,6	10,2	28,4	17,6	618	18,9±2,9	13,8	28,4	18,7

* In the variance analysis, if p < 0,05 significant.

** It was not found significance in the nutritional anthropometry during 2004-2007.

In the Table 2 it is observed the decrease of the bass weight and increase of the weight excess in both sexes during the four investigated years.

Table 2 - Distribution (%) of the adolescents' of both sexes nutritional status (2004 -2007).

Year (time)	Male			Female		
	Low Weight	Eutrofic	Weight excess	Low Weight	Eutrofic	Weight excess
	%					
2004	11,1 (n=12)	82,4 (n=89)	6,5 (n=7)	10,7 (n=12)	78,6 (n=88)	10,7 (n=12)
2005	11,4 (n=10)	83,0 (n=73)	5,7 (n=5)	8,2 (n=13)	78,0 (n=124)	13,8 (n=22)
2006	9,7 (n=17)	83,4 (n=146)	6,9 (n=12)	7,3 (15)	77,2 (n=159)	15,5 (n=32)
2007	7,7 (n=8)	83,7 (n=87)	8,7 (n=9)	6,4 (n=9)	79,4 (n=112)	14,2 (n=20)
*Dif (%)	-3,4%	+ 1,3%	+ 2,2%	- 4,3%	+ 0,8%	+ 3,5%
Total	9,9 (n=47)	83,2 (n=395)	6,9 (n=33)	7,9 (n=49)	78,5 (n=485)	13,6 (n=84)

* Difference among the final prevalence - initial.

In the Illustrations 1 and 2 it is observed in both sexes the nutritional transition during period of 2004-2007 in Pitimbu, South coast of Paraíba.

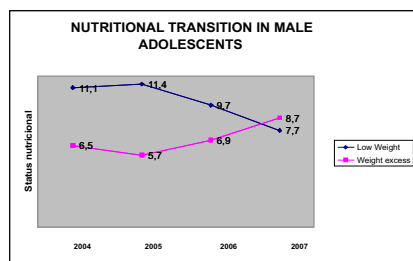


Figure 1 - Nutritional transition in the male adolescents

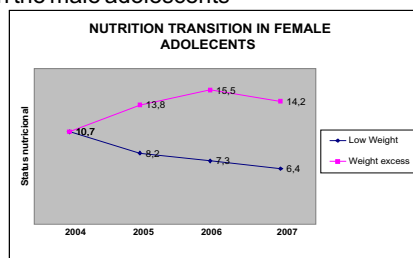


Figure 2 - Nutritional transition in the female adolescents.

In the Table 3 the data are stratified by sex and age. It is noticed that there are significant differences among the sexes in the anthropometry between 10 and 14 years. Between 15 and 17 years it was observed that the girls are shorter, however they show a superior IMC to their masculine pairs.

Table 3 - Average, SD of the anthropometry in adolescents of both sexes stratified by age group.

Anthropometry	Male		Female	
	10 - 14 years	15 - 17 years	10 - 14 years	15 - 17 years
	Mean ± SD (value p among sexes)			
Body mass (kg)	39,9±9,2 (p=0,00*)	55,6±7,7 (p=0,09)	42,9±9,3 (p=0,00*)	52,4±6,9 (p=0,09)
Statura (m)	1,49±0,10 (p=0,01*)	1,66±0,08 (p=0,01*)	1,51±0,08 (p=0,01*)	1,61±0,07 (p=0,01*)
BMI (kg/m ²)	17,7±2,5 (p=0,00*)	20,0±1,7 (p=0,72)	18,6±2,9 (p=0,00*)	20,2±2,6 (p=0,72)
	%			
Low weight	11,8 (n=46)	-	9,1 (n=48)	3,7 (n=1)
Eutrofic	81,7 (n=318)	91,2% (n=31)	77,5 (n=410)	88,9 (n=4)
Weight excess	6,4 (n=25)	8,8 (n=3)	13,4 (71)	7,4 (n=2)

* p < 0,05 (significant) - Tests t for independent groups.

As the Table 4 was not evidenced significant difference among the sexes in the presence of low weight; contrary condition was seen in the weight excess, superior in the girls.

Table 4 - Comparison between the sexes of the prevalence of low weight and weight excess (n=1093).

Sexe	Prevalence (%)		χ^2 (value p)
	Baixo peso		
Male	9,7		1,06 (p=0,302)
Female	7,9		
Total	8,7		
	Weight excess (%)		
Male	6,7		14,92 (p=0,000*)
Female	14,1		
Total	10,9		

* p <0,05; Teste qui-square (χ^2).

DISCUSSION

The municipal district of Pitimbu is located in the South coast of the state of Paraíba, at a lineal distance of 40km of the capital João Pessoa and 85km of Recife (FOOT), being their residents' predominant economical activity the fishing the territorial extension is of 136 km² and the dear population belongs to 13.927 inhabitants (BELTRÃO et al., 2005). The accomplishment of that study with scholars, allowed the determination of a pattern of prevalence of nutritional disturbances and tendency of offences in this local population. Considering that the nutritional transition has been documented internationally in the epidemic literature mainly in Latin America (FRENK; FREJKA; BOBADILLA, 2001) and the tendency in the decrease of the malnutrition and increase of the obesity has been observed at several countries (CALIMAN; FRANCESCHINI; PRIORE, 2006), it is done opportune the accomplishment of this work addressed for the adolescer of Pitimbu.

Brazil has been presenting deep modifications in the nutritional profile of his/her population, fruit of a known process as "secular change" or "nutritional transition". Regarding the "nutritional transition", Popkin (2001) it uses this concept to characterize the change at the present time in the nutritional profile of the populations. He/she presupposes the transition of the nutritional indicators as reflexes of the transformations lived by the societies in the last decades in his/her demographic and epidemic context as a consequence of the process of world modernization.

The averages of the anthropometry including exposed IMC in the results of the present work, they didn't show statistical significance during the four investigated years, in spite of, of the point of view of the nutritional tendency, it was observed in the masculine sex that the corporal mass presented an increase between 2004 and 2007, being similar in 2006-2007; the boys' stature was not altered between the same time and IMC presented an ascending profile among 2004 to 2007. In the feminine, there was equality in the medium of the weight between 2004 and 2005, with increase in the averages of 2006 and 2007; when analyzed the growth, it was observed that the stature stayed the same of 2004 up to 2006, with increase in the year of 2007; IMC showed oscillation with tendency to the gradual increase. Concerning the nutritional disturbances, it was noticed different situations among the sexes, with the masculine presenting larger prevalence of offences underneath weight; and the girls more attacked by the overweight condition. Coelho, Sichieri and González (2002) they published results similar to the obtained in this work, the authors found for adolescents male of Rio de Janeiro larger prevalence of low weight in relation to the overweight. In compensation, Vieira et al. (2002) analyzing the academical adolescents' nutritional profile, they found for the sex masculine 2,5% and 6,3% of low weight and overweight, respectively. However, when taken into account the tendency in the occurrence of the nutritional disturbances, both sexes showed larger disposition for the decrease of the deficit pondered and incorporation of the weight excess in his/her nutritional state. It is known that one of the possible causes of the increase of the obesity, particularly, among the adolescents it consists of the incorporation of the alimentary practice of the fast foods, known as fast foods, that a lot of times substitute the main meals (ANDERSEN et al., 1995). In research with adolescents of the city of São Paulo, Vitolo et al. (2007), they found values prevalence's of weight excess superiors to the youths of Pitimbu, this fact possibly can be associated with the best socioeconomic pattern and the alimentary pattern with larger ingestion of fast foods (characteristic profile of the population of the Southeast).

The discoveries of that study corroborate with the results of other researches as the one of Vasconcelos; He/she Whistles (2003), that you analyzed adolescents of 10 states of the Brazilian northeast, in general terms they found an ascendant curve shown that the curve went growing for the overweight and obesity during 1985 to 2000. This behavior seems to be a phenomenon seen in the whole Latin America. Albala et al. (2002) in population study accomplished in Chile analyzed the determinant and nutritional consequences and they also identified the decrease of the bass weight during the eighties, and the increase of the obesity in all of the age groups, with prevalence of 17,5% in the largest of six years. Other epidemiologists as Oliveira and Fisberg (2003), they emphasize the intense and present growth of weight excess in the adolescence, and they affirm that this tendency can persist in the adult life. It was still documented in the present traverse study, a percentile decrease of 3,4% and 4,3% of low weight and increase of 2,2% and 3,5% of weight excess in boys and girls, respectively. This profile fruit of the nutritional transition is being related there are some factors as the increase of the supply of energy for the diet, and reduction of the physical activity, which one can call contemporary western lifestyle (TARDIDO; FALCÃO, 2006). When seen the nutritional anthropometry in both sexes and stratified by age group was detected that the preadolescents (<15 years) masculine they presented values significantly inferior to the feminine (p <0,05), condition that is explained probably by the girl maturation pubertal to happen first with the emergence of the menarca (CASTILHO; BARRAS FILHO, 2000). Among 15 to 17 years, the boys were higher statisticament (p=0,01) than the girls, characteristic attributed to the equivalence in the growth pull that happens in this age group in the boys (DUARTE, 1993). Among the preadolescents the masculine sex presented larger frequency (11,8%) of low weight in relation to the girls and smaller percentile of weight excess (6,4%); in the strip between 15 and 17 years inverse situation was observed, with adult low weight in the feminine (9,1%) and larger presence of weight excess in the boys (8,8%). In the analysis of the nutritional disturbances in relation to the sex, significant difference was not evidenced between boys and girls concerning presence of low weight (p=0,302). However, when observed the weight excess, it was noticed significance (p=0,000) in the superiority of the occurrence of this offence in the girls. This profile is contrary to the published by Amaral; Pereira; Escoval (2007) that found prevalence of excess of superior weight in the male adolescents (20,0% vs. 14,4%). several other studies (BEJARANO, 2005; SANIGORSKI et al., 2007) they are identifying the decline of the prevalence of the bass weight and the growth of the weight excess in the adolescence.

CONCLUSION

Independent of the statistical value, the youths of both investigated sexes presented an ascending curve in his/her nutritional state during the analyzed period. The presence of nutritional offences was present the last four years with prominence for the increase of the weight excess in the adolescence. Fits to stand out that in spite of the current concerns with obesity in adolescence, the low weight should be reason concern for and also to be evidenced in epidemic researches and in public health.

In this perspective, the knowledge of the secular tendency of the nutritional pattern during the phase of the adolescence can contribute to a better understanding of these conditions, propitiating information for prevention interventions and promotion of politics of health minimizing several offences.

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SECULAR TRENDS OF NUTRITIONAL STATUS OF ADOLESCENTS IN PITIMBÚ, SOUTH COAST OF PARAÍBA (BRAZIL): TRANSITION OF 2004 TO 2007

ABSTRACT

The objective of this study was to analyze the temporary tendency of nutritional disturbances in adolescents of municipal district of Pitimbú (PB) during 2004 to 2007. Material and methods: They announced 1093 adolescents in the age group from 10 to 17 years of both sexes. The instruments for collection of data were: balances digital *Camry* and estadiometer model *Personal Sanny* to measure the body mass (BM) and stature (STA), respectively. The nutritional status was set out through the Body Mass Index (BMI) and adopted the percentis (P) of CDC (2000) and the classification of WHO (1995): <P5=low weight; between P10 and P85=eutrophic; and weight P>85=excess. The analysis of the data used SPSS version 13.0. Results: During 2004-2007 there were not significant changes (p>0,05) in the averages of BM, STA and BMI. In spite of, of the point of view of the nutritional tendency, it was observed in the masculine that BM increased between 2004 and 2007; was not the boys' STA altered in the same time and BMI presented a sensitive elevation among 2004 to 2007 in both sexes (? of 17,8kg/m² for 18,0 kg/m²; ? of 18,8kg/m² for 19,1 kg/m²). In the feminine, there was increase in the averages of BM of 2006 and 2007; when analyzed STA the maintenance of the same from 2004 to 2006 was observed with increase in 2007; IMC showed oscillation with tendency to the gradual increase. When seen in both sexes and stratified by age group was detected significantly between 10 and 14 years in boys values lower to feminine (p <0,05); between 15 and 17 years, the boys were higher estatisticament (p=0,01) than the girls,

without difference in IMC ($p=0,72$). In relation to the nutritional disturbances different situations were observed, with a tendency of masculine for the weight lower and of feminine for obesity. Conclusion: Independent of the statistical value, the youths of both investigated sexes presented an ascending curve in his/her nutritional status during the analyzed period. The occurrence of nutritional offences was present the last four years with prominence for the increase of the weight excess in the adolescence.

KEY WORD: Nutrition transition. Teen Health. Obesity.

TENDENCIA SECULAR D'ESTADO NUTRACIONAL DE ADOLESCENTES EN PITIMBÚ, COSTA SUR DE PARAÍBA (BRÉSIL): TRANSICIÓN DE 2004 UN 2007

RESUMÉ

L'objectif de cette étude était analyser la tendance temporaire de troubles alimentaires dans adolescents de district municipal de Pitimbú (PB) pendant 2004 la 2007. Matière et méthodes: Ils ont annoncé 1093 adolescents dans la tranche d'âge de 10 la 17 années des deux sexes. Les instruments pour collection de données étaient: balances *Camry* numérique et estadiometer modèle *Sanny Personnel* pour mesurer la masse du corps (MC) et taille (EST), respectivement. Le statut alimentaire a été disposé à travers l'Index de la Masse du Corps (l'IMC) et a adopté le percentis (P) de CDC (2000) et la classification de OMS (1995): < poids P5=bajo; P10 et P85=eutrofic; et poids P>85=excesse. L'analyse des données la utilisé SPSS version 13.0. Résultats: Pendant 2004-2007 il n'y avait pas de changements considérables ($p>0,05$) dans les moyennes de MC, EST et l'IMC. Malgré, du point de vue de la tendance alimentaire, il a été observé dans le masculin que BM a augmenté entre 2004 et 2007; est-ce que le EST des garçons n'a pas été changé dans le même temps et l'IMC a présenté une élévation sensible parmi 2004 la 2007 dans les deux sexes (? de $17,8\text{kg/m}^2$ pour $18,0\text{kg/m}^2$; ? de $18,8\text{kg/m}^2$ pour $19,1\text{kg/m}^2$). Dans le féminin, il y avait l'augmentation dans les moyennes de MC de 2006 et 2007; quand a analysé l'entretien à EST du même de 2004 la 2006 a été observé avec augmentation en 2007; l'IMC a montré l'oscillation avec tendance la l'augmentation graduelle. Quand vu dans les sexes et a stratifié par tranche d'âge a été détecté considérablement 10 et 14 années dans les valeurs des garçons inférieur à féminin ($p < 0,05$); 15 et 17 années, les garçons étaient de plus hauts estatisticament ($p=0,01$) que les filles, sans différence dans l'IMC ($p=0,72$). par rapport aux troubles alimentaires les situations différentes ont été observées, avec une tendance de masculin pour le poids inférieur et de féminin pour obésité. Conclusion: Indépendant de la valeur statistique, les jeunesses des deux sexes enquêtés sur ont présenté une courbe ascendante dans son statut alimentaire pendant la période analysée. L'événement d'offences alimentaire était présent les dernières quatre années avec prééminence pour l'augmentation de l'excès du poids dans l'adolescence. MOTS-CLÉFS: Transition de la nutrition. Santé d'adolescents. Obésité.

TENDENCIA SECULAR DO ESTADO NUTRACIONAL EN ADOLESCENTES EN PITIMBÚ, COSTA SUR DE PARAÍBA (BRASIL): TRANSICIÓN DE 2004 A 2007

RESUMEN

El objetivo de este estudio era analizar la tendencia temporal de perturbaciones nutricionales en los adolescentes de distrito municipal de Pitimbú (PB) durante 2004 a 2007. Material y métodos: Ellos anunciaron a 1093 adolescentes en el grupo etario de 10 a 17 años de ambos sexos. Los instrumentos para la colección de datos fueron: los equilibrios *Camry* digital y estadiometer modelan *Sanny Personal* para medir la masa corporal (MC) y estatura (EST), respectivamente. El estado nutricional estaba fuera fijo a través del Índice de Masa Corporal (IMC) y adoptó el percentis (P) de CDC (2000) y la clasificación de OMS (1995): < el peso de P5=bajo peso; entre P10 y P85=eutrofic; y peso P>85=exceso del peso. El análisis de los datos usó SPSS versión 13.0. Resultados: Durante 2004-2007 no había cambios significantes ($p>0,05$) en los promedios de MC, EST y IMC. A pesar de, del punto de vista de la tendencia nutritiva, se observó en el masculino que BM aumentó entre 2004 y 2007; ¿el eST de los muchachos no se alteró en el mismo tiempo y IMC presentó una elevación sensible entre 2004 a 2007 en ambos sexos (? de $17,8\text{kg/m}^2$ para $18,0\text{kg/m}^2$; ? de $18,8\text{kg/m}^2$ para $19,1\text{kg/m}^2$). En femenino, había aumento en los promedios de MC de 2006 y 2007; cuando analizó EST el mantenimiento del mismo de 2004 a 2006 se observó con el aumento en 2007; IMC mostró la oscilación con la tendencia al aumento gradual. Cuando visto en los sexos y estratificó por el grupo etario se descubrió significativamente entre 10 y 14 años en los valores de los muchachos baje al femenino ($p < 0,05$); entre 15 y 17 años, los muchachos eran los estatisticament más altos ($p=0,01$) que las muchachas, sin la diferencia en IMC ($p=0,72$). respecto a las perturbaciones nutritivas que se observaron las situaciones diferentes, con una tendencia de masculino para el peso baje y de femenino para la obesidad. Conclusión: Independiente del valor estadístico, las juventudes de los dos investigaron los sexos presentaron una curva ascendente en el estado nutricional durante el periodo analizado. La ocurrencia de ofensas nutritivas estaba presente los últimos cuatro años con la prominencia para el aumento del exceso de peso en la adolescencia.

PALABRAS CLAVE: Transición nutricional. Salud de los adolescentes. Obesidad.

TENDÊNCIA SECULAR NO ESTADO NUTRACIONAL DE ADOLESCENTES EM PITIMBÚ, LITORAL SUL DA PARAÍBA (BRASIL): TRANSIÇÃO DE 2004 A 2007

RESUMO

O objetivo deste estudo foi analisar a tendência temporal de distúrbios nutricionais em adolescentes do município de Pitimbú (PB) durante 2004 a 2007. Material e métodos: Participaram 1093 adolescentes na faixa etária de 10 a 17 anos de ambos os sexos. Os instrumentos para coleta de dados foram: balança digital *Camry* e estadiômetro modelo *Personal Sanny* para mensurar a massa corporal (MC) e estatura (EST), respectivamente. O estado nutricional foi equacionado através do Índice de Massa Corporal (IMC) e adotado os percentis (P) do CDC (2000) e a classificação da OMS (1995): <P5=baixo peso; entre P10 e P85=eutrofia; e P>85=excesso de peso. A análise dos dados utilizou o SPSS versão 13.0. Resultados: Durante 2004-2007 não houve mudanças significantes ($p>0,05$) nas médias da MC, EST e IMC. Não obstante, do ponto de vista da tendência nutricional, observou-se no masculino que a MC aumentou entre 2004 e 2007; a EST dos rapazes não foi alterada no mesmo tempo e o IMC apresentou uma sensível elevação entre 2004 a 2007 em ambos os sexos (? de $17,8\text{kg/m}^2$ para $18,0\text{kg/m}^2$; ? de $18,8\text{kg/m}^2$ para $19,1\text{kg/m}^2$). No feminino, houve aumento nas médias da MC de 2006 e 2007; quando analisado a EST observou-se a manutenção da mesma de 2004 a 2006 com aumento em 2007; o IMC mostrou oscilação com tendência ao aumento gradual. Quando visto em ambos os sexos e estratificado por faixa etária foi detectado entre 10 e 14 anos nos meninos valores significantemente inferiores ao feminino ($p<0,05$); entre 15 e 17 anos, os rapazes foram estatisticamente mais altos ($p=0,01$) do que as moças, sem diferença no IMC ($p=0,72$). Em relação aos distúrbios nutricionais foram observadas situações distintas, com uma tendência do masculino para o baixo peso e do feminino a obesidade. Conclusão: Independente do valor estatístico, os jovens de ambos os sexos investigados apresentaram uma curva ascendente em seu estado nutricional durante o período analisado. A ocorrência de agravos nutricionais foi presente nos últimos quatro anos com destaque para o aumento do excesso de peso na adolescência.

PALAVRAS-CHAVE: Transição Nutricional. Saúde do adolescente. Obesidade.