



EQUILIBRIO

SELF-PERCEPTION OF BODY IMAGE AND RISK EATING BEHAVIOURS IN COLOMBIAN INDIGENOUS PEOPLE AND AFRO-DESCENDANT POPULATION

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Abstract

Purpose: To examine the prevalence of the discordance (over estimation or sub estimation) of body image self-perception in a sample of Colombian Indigenous people and Afro descendants and compare it with the population of all the country. Risk eating behaviors were also compared. **Methods:** We studied data taken from the National Survey of Colombian Nutritional Situation ENSIN 2010, which was performed in 13.595 men and women (13-64 years old) from all strata in rural and urban areas of the country. Of these, 1.332 Indigenous persons and 1.368 Afro descendants were analyzed and compared with the rest of the population. The discrepancies between self-perception of body image and BMI as well as risk eating behaviors were explored. **Results:** In adolescents, 10,3% (CI 95% 7,6-13,9) of the Indigenous people reported over estimation of body image and 25,9% (CI 95% 21,4-31) sub estimation. In Afro descendants 9,5% (CI 95% 7,4-12,1) over estimate their BMI and 29% (CI 95% 25,5-32,8) sub estimate it. In the adults group, the Indigenous people reported over estimation in 3,8% (IC 95% 2-7,1) and 39% (IC 95% 33,8-44,5) sub estimation. Over estimation in Indigenous adults is significantly lower than in Afro descendants and the rest of the population. In contrast, sub estimation is higher than in other groups. The most prevalent risk behavior in the Afro descendants group was to fast for 24 hours or more. **Conclusion:** These findings suggest that some ethnic minorities in Colombia seem to show similar risk factors than the rest of the Colombian population as has been reported in other countries.

Introduction

Multiple studies have been conducted to investigate the relationship between ethnicity and acculturation status, and risk factors for eating disorders among women of different countries. Results show that risk factors for eating disorders are present across a broad range of racial and ethnic groups, living in urban or rural areas. This indicates that risk factors for disordered eating are not restricted to Caucasian females in Western societies.

Self-perception of the body is defined as the estimate of the size of one's own body or body parts, and it is one of the components of body image. The discordance in self-perception is defined as a lack of agreement between the measured BMI and the perception one has about its own body, either over estimating or under estimating its real size. Over estimation or sub estimation in body image self-perception are frequent conditions in all groups of age and can be important risk factors for the appearance of ED symptoms.

In this aspect, Adolescent Colombian women tend to over estimate their BMI more than men, while adults tend to sub estimate it. Nevertheless the problem has not been deeply studied yet in Indigenous people and other ethnic minorities. Following the last National Census of the population (DANE 2005), in Colombia the Indigenous population are the 3,43% of the country population (1.392.623 people) represented in around 90 different tribes, while the 10,62% are Afro descendants (4.311.757 people).

The objective of the following work was to evaluate self-perception of body image in relation to concordance, over estimation or under estimation of BMI; detect risk behaviors for eating disorders in a sample of Indigenous people and Afro descendants from both genders, and compare them with the rest of the population surveyed throughout Colombia.

Methods

We studied data taken from the National Survey of Colombian Nutritional Situation, (ENSIN 2010) which was performed in 13.595 men and women (13-64 years old) from all strata in rural and urban areas of the country. Of these, 1.332 Indigenous people and 1.368 Afro descendants were analyzed. The discrepancies between self-perception of body image and BMI as well as risk eating behaviors were explored. The recollection of the information was done by a group of nutritionist from the work team. Questions about risk behaviors were adapted from the Center for Disease Control and Prevention: BRFSS questionnaires and Youth Risk Behavior Surveillance System (YRBSS). All analyses were conducted using SAS 9.1 and Stata version 9.0 with appropriate weighting and adjustment for the sampling design.

Results

Self-perception: In the Indigenous adolescents' group 10,3 % (CI 95% 7,6-13,9) reported over estimation of body image and 25,9% (CI 95% 21,4-31) sub estimation. In Afro descendants, 9,5% (7,4-12,1) over estimate their BMI and 29% (CI 95% 25,5-32,8) sub estimate it. In the adults group, the Indigenous people reported over estimation in 3,8% (IC 95% 2-7,1) and 39% (IC 95% 33,8-44,5) sub estimation. Over estimation in Indigenous adults is significantly lower than the Afro descendants and the rest of the population ($p < 0,01$). In contrast, sub estimation is higher than in other groups ($p < 0,04$). (Tables 1,2).

Table 1. Body Image Concordance in Colombian Indigenous and Afro descendants adolescents.

Ethnicity	#	Concordance with real BMI % (CI 95%)	Over-estimation of real BMI % (CI 95%)	Sub-estimation of real BMI % (CI 95%)	p
Indigenous	899	63,8 (58,4-68,9)	10,3 (7,6-13,9)	25,9 (21,4-31,0)	
Afro descendants	864	61,5 (55,7-63,3)	9,5 (7,4-12,1)	29,0 (25,5-32,8)	0,01*
Others	6211	66,0 (64,5-67,4)	11,3 (10,3-12,3)	22,8 (21,5-24,1)	

* $p < 0,05$
Kappa Index 0.25 (Indigenous); 0.30 (Afro descendants); 0.29 (Others): poor agreement.

Table 2. Body Image Concordance in Colombian Indigenous and Afro descendants adults.

Ethnicity	#	Concordance with real BMI % (CI 95%)	Over-estimation of real BMI % (CI 95%)	p	Sub-estimation of real BMI % (CI 95%)	p
Indigenous	766	57,2 (51,7-62,5)	3,8 (2-7,1)	0,01*	39 (33,8-44,5)	0,04*
Afro descendants	850	59,5 (55,7-63,3)	6 (4,4-8,3)		34,4 (30,9-38,2)	
Others	6503	61,5 (60,0-62,9)	6,9 (6,1-7,7)		31,7 (30,3-33,1)	

* $p < 0,05$
Kappa Index 0.33 (Indigenous); 0.40 (Afro descendants); 0.42 (Others): poor agreement.

Risk behaviors: The overall prevalence of risk behaviors associated with eating habits was 4,5% (CI 95%: 2,9-7) in Indigenous people 7,3% (CI 95% 5,7-9,4), and 6,7% (6,2-7,3) in the Afro descendants group. The most prevalent risk behavior in Afro descendants was to fast for 24 hours or more in order to lose weight. There were significant differences between this group, the Indigenous people group and the rest of the population ($p < 0,042$). In Indigenous people, the most prevalent risk behavior was to use products to lose weight, but the group showed no significant differences from the rest of the population ($p = 0,276$). (Figure 1).

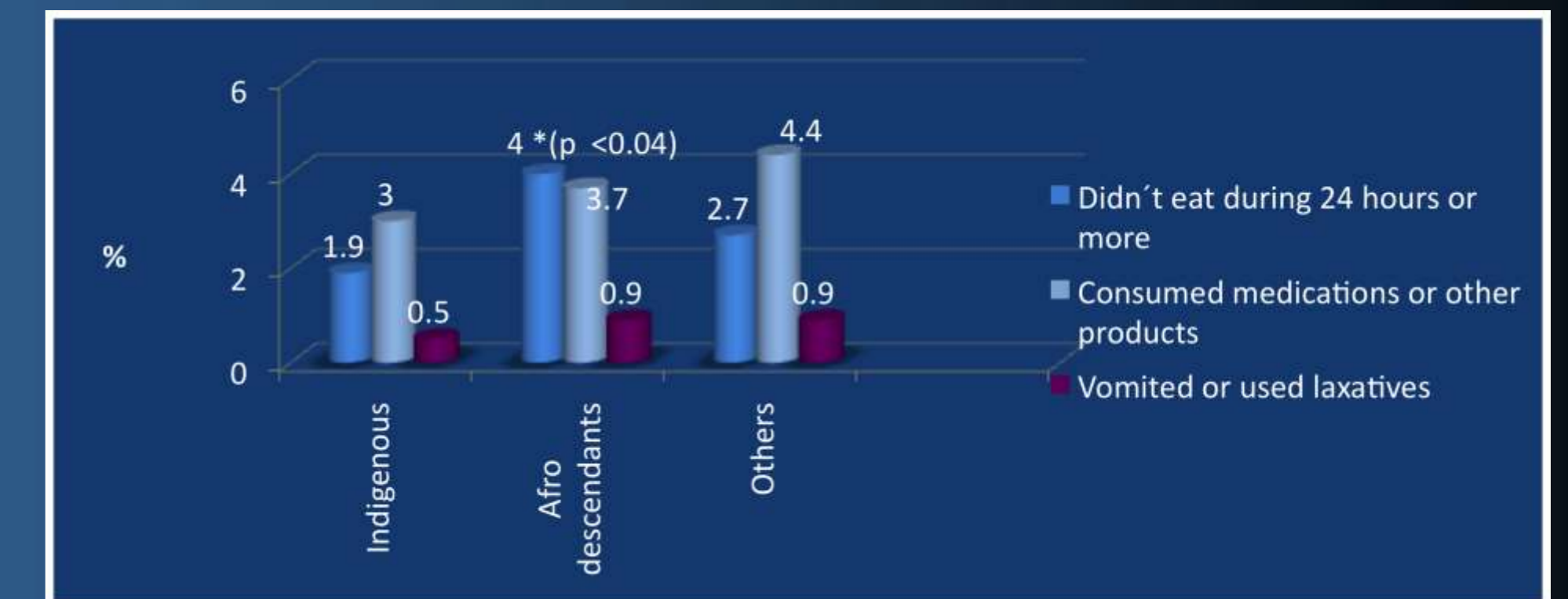


Figure 1. Self-reported risk behaviours in Colombian Indigenous people and Afro descendants

Conclusions

- ◆ In general, the concordance between self-perception and BMI of Indigenous people and Afro descendants is not different from the rest of the investigated population.
- ◆ Colombian adolescents from ethnic minorities over estimate their BMI in a similar way that the rest of the population, but Afro descendants adolescents tend to sub estimate it in a significant higher way in comparison with the rest of Colombian youngs.
- ◆ Indigenous adults over estimate less their BMI than Afro descendants and than the rest of the population, but they sub estimate it more that the Afro descendants and the rest of the population.
- ◆ Afro descendants reported the most prevalent risk behaviors for eating disorders. Among these, the most frequent was prolonged fasting during 24 hours or more, but the consumption of medications and other weight loss products, and laxative abuse or vomits were not different from the rest of Colombian population.
- ◆ This commonality between Indigenous people, Afro descendants and the rest of the Colombian population refutes the myth that risk behaviors for eating disorders are problems that only affect white and high-class girls and women, agreeing with studies conducted in other countries.
- ◆ **Limitations:** It is important to state that the analyzed sample is not representative of the 90 Indigenous groups of Colombia, and that it corresponds to the investigated subjects in urban and rural areas that declare to belong to an Indigenous ethnia. This situation allows us to make a hypothesis about the acculturation process in those communities and their role. This limitation is a big challenge for other research projects that are being done, and that pretend to explore all the indigenous communities in our country.

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