

Research Article

The Influence of Specialists and Media on the Practice of Physical Activity, Body Image and Eating Behavior among Brazilian Students

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Proposal: There has been an increase in the information regarding nutrition, health and the body provided by health professionals and the media, which currently becomes more and more prevalent. However, studies about the impact of said information on behaviors are still inexpressive and, for that reason, this research aims to assess the impact of such information on these different behaviors.

Methods: A transversal inquiry was applied to 718 people aged between 18-25, all students of a Brazilian University in the fields of Humanities, Exact Sciences and Life Sciences. A survey was applied in order to gather knowledge of the information provided by health professionals and the media, in the realms of physical activity, body image and eating behavior. Descriptive assessments and adjusted linear regressions were used — stratified by gender — in order to verify the association between the information received and the behavior adopted.

Results: Independent variables, such as the act of seeking health professionals, were associated with higher degrees in the practice of physical activity and controlled eating behavior. Meanwhile, the search for information related to gourmet recipes and disease prevention contributed to negative associations, in lower proportions, related to physical activity and body dissatisfaction.

Conclusion: Information provided by health professionals have shown to be more consistent and positively associated with the adoption of healthy, controlled behavior, while information provided by media has shown a negative association with healthy practices.

Keywords: Choice behavior; Young adults; Communications media; Health personnel

Introduction

In 2004, the World Health Organization implemented the creation of “The Global Strategy for Health, Food and Physical Activity”, whose results showed increased rates of overweight, obesity and Non-Communicable Chronic Diseases (NCDs), which led health professionals to develop high-scale programmes in order to reduce the risks of NCDs, such as 2004 [1] and subsequently develop a specific Brazilian guide for healthy eating [2].

Meanwhile, the media has also been increasing its contribution in informing the population about preventive measures regarding excess weight [3,4]. However, some studies in the literature have pointed out that this type of research has a health relation with the lean body, which in turn contributes to body dissatisfaction and eating disorders [5-8]. Another recurrent fact today is the increase in information about concepts of food and nutrition, which are increasingly disseminated within the knowledge and skills of eating that are defined by food literacy [9].

Disordered eating has been evident in college students both in

Brazil [10-12] and in the world [5-8,13]. In general, its cause lies in body dissatisfaction, common also in this same age group. This type of behavior includes inappropriate behaviors in order to decrease or control weight, which are associated with the practice of physical activity that may be in excess or not [14].

The reason for body dissatisfaction may be related to overweight as well. In Brazil, this number is quite significant coming in 2014 at 35% and 27.2% overweight and 9.3% and 7.5% of obesity for men and women aged 18 to 24 [15]. However, when evaluating 2,402 Brazilian female college students, we found that body dissatisfaction was found in 64% of students considered eutrophic. Out of these students, 40.7% had regimens for weight loss and 35.6% used diet or other compensatory methods to reduce weight [11].

Researches with males are not so specific in Brazil yet [16], but some authors point out that men take care of their bodies through physical activities. In some cases, however, in order to promote an increase of lean mass, they reach compulsive limits making use of legal and illegal substances [17].

Table 1: Distribution of areas of study, course year and health problems among college students that took part in the research at Unifesp's Campi of Diadema, Guarulhos, São José dos Campos and Osasco. São Paulo, Brazil, 2013-2015.

	Total	%	Male	%	Female	%
University students	718	100	222	31	496	69
Courses						
Exact sciences	283	39.4	108	48.6	175	35.3
Humanities	325	45.3	71	32	254	51.2
Life Sciences	110	15.3	43	19.4	67	13.5
Course Year						
1	244	34	95	42.8	149	30
2	169	23.5	55	24.8	114	23
3	113	15.7	33	14.9	80	16.1
4	192	26.7	39	17.5	153	31.8
Health problems						
None	246	34.3	127	57.2	119	24
NCD	189	26.3	45	20.3	144	29
DP	117	16.3	19	8.5	98	19.7
DD	166	23.1	31	13.9	135	27.2

NCD: Non-Communicable Diseases; PD: Psychiatric Diseases; DD: Digestive Diseases

The cohort study entitled "Surveillance of Chronic Diseases by Telephone Inquiry" (Vigitel), which has been carried out in Brazil since 2006, shows that there is a tendency in modifying health care for the young people. In the surveys of 2009 and 2014 conducted with 14,193 young people aged 18 to 24, we were able to observe an increase in the pattern of physical activity during free time for young men, from 27.6% to 61.9%, while for young women there was an increased consumption of fruit and vegetables from 16.8% to 29.6% [15,18].

With the increase of several types of health-related behavior developed in an era when there is more access to information and specialists, it becomes imperative to discover certain associations. One of them would be the association between seeking health professionals and information published in the media regarding food, nutrition, health and body and how this impacts physical activity, body image and several types of eating behaviors among the Brazilian students.

Methods

The characterisation of the study, population and sample

A cross-sectional survey was implemented among college students between the ages of 18-25, enrolled at four campuses (Diadema, Guarulhos, São José dos Campos and Osasco) of the Federal University of São Paulo (Unifesp). Participants were recruited from courses including the areas of Human Sciences, Exact Sciences and Life Sciences. Students of the Health areas have been excluded in order to avoid biased answers. The study was approved by the Committee of Research Ethics of the Federal University of São Paulo - School of Medicine of São Paulo, under the number 1636/11.

Participants with the above-mentioned profile have been selected by the administrative office of each campus, resulting in a total of

6,910 students. Participants were invited by e-mail to take part in the survey. The e-mail included information about the study, consent details and a link to the online survey. The survey data was collected over the period 2013-2015.

Questionnaire and variables

In order to prepare the questionnaire, two focus groups with 4 and 6 college students were formed, as well as 8 more individual in-depth interviews. The aim was to discover where college students obtain information about eating, nutrition, health and their bodies, as well as their main behaviors related to eating and the practice of physical activity. The instrument has been divided into different categories: i) personal data: date of birth, course, year of study, ii) health: main health problems among the Brazilian population from 18 to 29 years of age [19]; iii) habitual physical activity: was measured using the instrument developed by Baecke et al. has been used [20]; iv) body image: the scales of Brazilian silhouettes used [21] were adapted and validated for online use [22] through each score regarding body dissatisfaction for thinness, obesity or satisfaction; v) information sought from health professionals; vi) use of communications: internet, television, magazines, family and friends; vii) types of information; viii) eating behavior: healthy [2], controlled [23], hedonistic [24], ethical [25,26], as well as factors related to the practice of physical activity, herein referred to as body shaper [14,16,17]. The questionnaire was delivered using SurveyMonkey®, using a Likert with 5 classifications for questions, except for issues arising Baecke's questions [20].

The variables were classified as: independent: Health Professionals; medical service, doctor or nutritionist and physical educator and Types of Information; healthy recipes, gourmet recipes, weight control and loss, increase of lean mass and prevention, and dependent: Physical Activity; leisure physical activity, physical activity for movement, body Image; current and desired body, eating behavior from factorial analysis; ethics+controlled, ethics+controlled, portions, hedonistic, controlled+hedonistic, body shaper and healthy, and adjusted for (age, disease and area of the courses).

Statistical analysis

The assessment was divided by gender. A descriptive analysis was performed through absolute and relative frequencies, as well as medians and standard-deviations. In order to identify types of eating behavior, a factorial analysis was conducted using the main component extraction method, as well as the Varimax rotation method, with Kaiser-Meyer-Olkin (KMO) normalization and the Bartlett Test. The questions grouped through factorial analysis were tested according to Cronbach's α , verifying the reliability value.

Multiple linear regressions were implemented in order to identify the association between seeking health professionals and information in media with physical activity, body image and eating behavior. This was subsequently adjusted by variables: age, type of course and health problems, using a stepwise process to select variables within the model, excluding those who did not appear to be significant (p -value > 0,05). The following software programs were used: SPSS 17, Minitab 16 and Excel Office 2010.

Results

Among four campuses, 1,701 students opened the link, 906 of

Table 2: Factor analysis for the eating behaviour of Brazilian College students from Unifesp. São Paulo, Brazil. 2013-2015.

Factors/ Items	Loading	Eingvalues	% of variance	Cronbach's α
Factor 1- Ethics + Controlled		5.6	22.6	0.825
I remove from my meals processed foods like hamburgers, sausages, nuggets, because I do not know what they contain	0.773			
I choose organic food because I am concerned about my health and my living conditions in the future	0.755			
I try to eat foods containing no additives	0.73			
I remove meat from my meals (beef, chicken and fish) because I do not agree with how the animals are "treated" for consumption	0.712			
I remove oil and other genetically modified foods from my diet:	0.655			
I follow a low-fat diet, with less oil, butter, cheesy, fatty, fried foods, because I am afraid of accumulating fat in my body	0.456			
Factor 2- Ethics + Controlled		2.2	8.84	0.581
I determine meal times according to physical activity	0.652			
I use supplements to increase the muscles in my body	0.628			
I avoid eating foods high in carbohydrates like (rice, potatoes, noodles, bread, etc.):	0.525			
I usually low calorie foods such as diet and light products	0.487			
Factor 3 – Portions		2.1 8.4	8.4	-0.94
I only get satisfied with large amounts of food.	-0.793			
I always eat small portions, less than most people eat	0.788			
I only eat enough and never go overboard	0.735			
Factor 4- Hedonistic		1.9	7.4	0.615
I appreciate gourmet foods, those with different flavours and that are usually high calories and delicious:	0.702			
I always eat candy and chocolate during the day	0.687			
I usually choose food that is very high in calories, such as sandwiches, stuffed pizzas, fatty meats, and among other:	0.619			
Factor 5- Controlled + Hedonistic		1.4	5.5	-0.026
When choosing food or a meal, I'm always in doubt between "healthy" and "yummy"	0.799			
After ingesting food that is rich in fat and sugar, I have a negative feeling, like I didn't make a good choice	0.797			
I eat what I like without worrying about how healthy the food is	-0.435			
Factor 6- Body Shaper				
My diet is rich in carbohydrates such as rice, bread, noodles which are just as important for my fitness	0.878			
My diet is rich in protein (e.g. meat, eggs and milk) because I think that increases my muscles.	0.739			
Factor 7- Healthy		1	4.2	0.554
I try to drink milk or yogurt as well as eat dairy because I know these foods are important for my health	0.717			
I eat rice and beans, because I know this food is essential for my health	0.596			
I eat food that is enriched with minerals, vitamins and fibres, in order to improve my health	0.508			
I eat fruit and salads every day, aiming to keep a balanced diet	0.487			
Total % of variability			61.8	

these agreed to take part in the survey and 166 declined. However, 32 students older than 26 were excluded, 12 of them were excluded for being post-graduate students, as well as other 143 students who only filled 15% of the questionnaire, totaling 718 students with an average age of 21.6 ± 2.1 . Table 1 shows this distribution by gender, area of study, year in the course, and health problems found among college students.

Health problems were divided into three groups: (i) Non-Communicable Chronic Diseases (NCDs): overweight or obese, heart conditions, high blood pressure, diabetes, cancer, high blood

cholesterol; (ii) Psychiatric Disorders (PD): eating disorders (such as anorexia, bulimia and compulsive eating), depression; (iii) Digestive Diseases (DD): gastritis, reflux and intestinal disease.

Table 2 shows questions distributed by components of eating behavior, according to the charges obtained through factor analysis with eigenvalues, percent variance and Cronbach's α . We were able to verify that the 25 questions generated 7 factors, with a total variability of 61.8%. KMO was of 0.82, with significance level < 0.001 , provided by Bartlett's test.

Factor analysis groups questions with a higher degree of similarity.

Table 3: Physical activity, body perception, eating behaviour, health professionals, media, types of information, credibility of the information for Brazilian College students from Unifesp. São Paulo, Brazil, 2013-2015.

Variables	n	Male Mean	dp	n	Female Mean	dp	p-value
Physical Activity							
Leisure Physical Activity	216	2.69	1	479	2.44	1	<0.001
Physical Activity for Movement	222	2.89	1	496	2.76	1	0.006
Body Image							
Current Body	215	24.51	7	489	31.14	7	<0.001
Desired Body	213	24.62	4	487	27.43	5	<0.001
Eating Behaviour							
F1 Ethics+Controlled	200	2.15	1	445	2.29	1	0.064
F2 Body Shaper+Controlled	200	1.79	1	445	1.76	1	0.683
F3 Portions	200	2.65	1	445	2.7	1	0.184
F4 Hedonistic	200	2.71	1	445	2.94	1	0.001
F5 Controlled+Hedonistic	200	2.68	1	445	3.01	1	<0.001
F6 Body Shaper	200	3.26	1	445	2.94	1	0.001
F7 Healthy	200	3.71	1	445	3.61	1	0.083
Health Professionals							
Medical Service	218	2.56	1	493	3.06	1	<0.001
Doctor/Nutritionist	218	1.43	1	493	1.77	1	<0.001
Physical Educator	218	1.59	1	493	1.73	1	0.071
Media							
Television	155	2.48	1	394	2.54	1	0.598
Magazines	155	2.49	1	394	2.54	1	0.609
Internet	155	4.18	1	394	4.16	1	0.769
Family/friends	155	3.3	1	394	3.35	1	0.549
Types of information							
Healthy Recipes	152	2.89	1	380	2.95	1	0.577
Gourmet Recipes	152	2.89	1	380	2.94	1	0.691
Weight Loss and Control	152	2.36	1	380	2.52	1	0.161
Increase of Lean Mass	152	2.18	1	380	2.32	1	0.201
Disease Prevention	152	3.04	1	380	3.05	1	0.94
Credibility of the Information							
Reliability of the Issues	154	3.67	1	389	3.63	1	0.746
Believe in Family and Friends	154	2.62	1	389	2.6	1	0.82

Factor 1: Ethics and Controlled; Factor 2: Body Building and Controlled; Factor 3: Portions
 Factor 4: Hedonistic; Factor 5: Controlled and Hedonistic; Factor 6: Body Building and Factor; 7: Healthy

In this case, we observed that, at first, there were five eating behaviors but, subsequent to the analysis, we had seven. As a consequence, some of them appear more than once in different compositions. Questions related to Factor 1 are considered Ethics and Controlled, displaying the highest degree of agreement within the assessed group, of 22.6% variance and 0.825 reliability. Factor 2 refers to Body Shaper and Controlled Behavior. Factor 3 divided questions related to portions into three categories: "little, a lot and enough", determined by Factor 3 Portions. Factor 4 refers to Hedonistic matters. Factor 5, Controlled and Hedonistic. Factor 6 refers to Body Shaper. Finally, Factor 7

refers to Healthy Behavior. After Factor 1, the variance noticeably decreases. However, Cronbach's α displays adequate reliability for the grouping of factors 1,4 and 6, being $>0,60$.

Table 3 shows results related to the practice of physical activity, body image, eating behavior, seeking health professional, used media and the types of information related to nutrition, eating, health and body, as well as the importance placed in the reliability of the information provided by media.

As for physical activity, males practice it in a proportion that is

Table 4: Linear Regression among Health Professionals and types of information on media related to physical activity and body image, for Brazilian College students from Unifesp, São Paulo, Brazil, 2013-2015.

Variables	Physical Activity				Body Image					
	Physical Exercise		Physical Activity for Movement		Dissatisfaction Thinner D		Dissatisfaction Obesity		Body Satisfaction	
Gender	♂	♀	♂	♀	♂	♀	♂	♀	♂	♀
Health professionals										
Medical Service			0.13							
Doctor/ Nutritionist			0.017							
Physical Educator	0.38	0.36		0.87		-0.04				0.04
	<0.001	<0.001		0.006		0.033				0.029
Seeking Information										
Gourmet Recipe		-0,07		-0,06		0,04		-0,04		
		0,012		0,022		0,006		0,029		
Increase of Lean Mass										
Weight Loss and Control										
Disease Prevention			-0.09					0.05		-0.05
			0.024					0.016		0.016
R2	27.3%	25.4%	13%	7.2%	5,5%	5.5%	11.5%	11.7%	-	11.7%

Adjusted for variables (age, areas of the courses and health problems).

significantly higher than females. Health care is the most common source to treat health problems, followed by seeking doctors and nutritionists to obtain guidance on eating. The last two segments are more commonly used by females (p<0.001). Consulting physical educators in order to improve conditioning is the least common of all options, and does not show significant difference between genders.

The desired body that is considered “in” has a significantly lower BMI for males, when compared to females. However, the average BMI for males is within what is considered appropriate, while for females it would fall into obesity grade I, while their desired BMI is overweight.

Regarding eating, the most prevalent behavior was F7-Healthy for both genders. This was followed by F6-Body Shaper, which was more prevalent among males, while F5-Hedonistic+Controlled and F4-Hedonistic were significantly more prevalent among females. Behaviors regarding F3-Portions, F1-Ethic+Body Shaper and F2-Body Shaper+Controlled do not display a significant difference between genders, the latter being the one with the lower proportion observed.

Seeking information about eating, nutrition, health and body in the media is more common on the internet, which is followed by friends, family, television and magazines, in a similar way. However, females seem to use more television, magazines and consulting with family and friends for this purpose. Meanwhile, the internet is more commonly used by males, but without a significant difference.

Among the information requested, the highest proportion is related to disease prevention and the increase of lean mass, without a significant difference between genders. College students seem to be concerned with finding out who is responsible for writing an article, placing more faith in these over family and friends.

Table 4 shows the adjusted linear regression (age, course area and health problems) between the use of health professionals and the types of information requested through the media, practice of physical activity and body image.

As for the practice of physical activity, seeking an educator is positively associated with the practice, among males (b=0.38, p<0.001) and females (b=0.36, p<0.001), and physical activity for movement among females (b= 0.87, p=0.006). Among males, seeking health services was associated with a higher degree of physical activity for movement (b=0.13, p=0.017).

On the other hand, seeking information about gourmet recipes is negatively associated with the practice of physical activity (b=-0.07, p=0.012) and physical activity for movement (b=-0.06, p=0.022) among females. For males, seeking information on disease prevention is also negatively associated with leisure and physical activity for movement (b=-0.09, p=0.024).

With regards to body image, seeking a physical educator shows a negative association with body dissatisfaction (b=-0.04, p=0.033) and positive association with body satisfaction (b=0.04, p=0.029). However, seeking for gourmet recipes has a positive association with dissatisfaction due to thinness (b=0.04, p=0.006) and negative for dissatisfaction due to obesity (b=-0.04, p=0.029), while information regarding disease prevention had a positive association with dissatisfaction due to obesity (b=0.05, p=0.016) and a negative association with body satisfaction (b=-0.05, p=0.0016). These results were only found among females.

Table 5 shows the adjusted linear regression (age, course area and health problems) between the use of health professionals and the types of information requested through media with eating behavior. The health service shows a positive association with F3-Portions behavior only for females (b=0.05, p=0.046). Doctors and

Table 5: Linear Regression among Health Professionals and types of information on media related to eating behavior, for Brazilian College students from Unifesp, São Paulo, Brazil, 2013-2015.

Eating Behavior														
Variables	Factor 1		Factor 2		Factor 3		Factor 4		Factor 5		Factor 6		Factor 7	
	Ethics+ Controlled		Body Shaper + Controlled		Portions		Hedonistic		Controlled+ Hedonistic		Body Shaper		Healthy	
Gender	♂	♀	♂	♀	♂	♀	♂	♀	♂	♀	♂	♀	♂	♀
Health Professionals														
Medical Service					0.05									
					0.046									
Doctor	0,26	0,22	0.39	0.14				-0.14					0.22	0.12
Nutritionist	0.01 1	<0.001	<0.001	<0.001				<0.001					0,002	0,005
Physical Educator			0.23	0.27							0.26	0,13		0,09
			<0.001	<0.001							0.003	0.021		0.027
Seeking Information														
Gourmet Recipe														
Increase of Lean Mass												-0.11		
												0.012		
Weight Loss and Control						-0.13								
						0.017								
Disease Prevention														
R2	4.70%	9.70%	32.90%	29.10%	-	1.20%	4.10%	9.50%	10.40%	4.50%	9.20%	3.40%	9.50%	7.10%

Adjusted for variables (age, areas of the courses and health problems).

nutritionists have associated positively for F1-Ethic+Controlled for males (b=0.26, p=0.011) and females (b=0.22, p<0.001), with F2-Body Shaper+Controlled, for males in (b=0.39, p<0.001) and females in (b=0.14, p<0.001) and F7-Healthy for males (b=0.22, p=0.002) and females (b=0.12, p=0.005). There is a negative association for F4-Hedonitics behavior only for females (b=-0.14, p<0.001).

The physical educator shows a positive association for some eating behaviors, such as F2-CC+C for males (b=0.23, p<0.001) and females (b=0.27, p<0.001), F6- Body Shaper for males (b=0.26, p=0.003) and females (b=0.13, p=0.021) and F7-Healthy, only for females (b=0.09, p=0.027)

However, the information about the increase of lean mass obtained from the media has a negative association for females (b=-0.11, p=0.012), and the information on weight control was also negatively associated with F4-Hedonitics, only for males (b=-0.13, p=0.017).

Discussion

We observed that college students are interested and concerned about their health, looking for information online, with family and friends, as well as seeking medical help. We can conclude that these results were achieved due to the fact that 66% of them claimed, in the questionnaire, to have a health problem. We observed that this rate does not match the one obtained by Vigitel’s monitoring in 27 Brazilian capital cities, where males described their health negatively by 3.0% and females by 4.0% [15].

The interest in information related to health is similar to the one observed in the US research The social life of health information,

which included adults, showing that 59% of people seek health and wellbeing information online first; 55% seek doctors and 29% family and friends [4]. However, the meta-analysis of Willians et al. [27] shows that the most searched information online refers to weight loss. Our work shows that college students search for disease prevention, which reflects how, related it is to this group’s self-assessment of their own health.

College students believe in ideas provided by friends and family in a lesser extent than how they worry about the person who is writing articles online. This could occur since the students have, in their majority, reported having health problems, hence becoming more picky regarding how they define concepts, as Farthing [28] highlights that health conditions, social and cultural status, as well as knowledge, are all factors that may contribute to the process of choice selection.

In this research, we observed that the practice of physical activity is associated with seeking a physical educator, while a balanced diet is associated with doctors and nutritionists. We know that most health professionals aim to educate about the benefits of a change and provide encouragement for this change [29], in order to enable the individual to make balanced decisions [30].

However, we also observed that there are doctors, nutritionists and physical educators associated with behaviors that are mostly related to dieting aiming for body change (F2- Body Shaper+Controlled and F6-Body Shaper), whether it is weight loss or lean mass increase. Constant preoccupation in achieving this type of body standard may contribute to risky behaviors, which could lead to eating disorders if practiced for an extended period of time, especially when there is no progress. This could endanger the health of young people [12,30].

Therefore, we have observed that part of college students aim to follow a balanced sector, while the other part seeks controlled dieting. Said behaviors can be better understood through how they correlate with determining factors, such as health condition and self-image [28].

Seeking gourmet recipes, which apparently could be considered pleasurable and harmless, has shown in this work to be negatively related to behavior changes among females through physical activity decrease, as well as body dissatisfaction increase due to obesity or thinness.

The growth of this type of information has caught the attention of many researchers [31-33], who mainly describe how women who suffer with the impact of ideal bodies seek recipes in order to find a way to accept the ingestion of recipes with an excess of calories. These recipes, however, contributes to weight gain, especially when it becomes a routine [30]. Other studies show that people who seek for this type of information mostly present a profile of hedonistic behavior [32]. Wansink [33] reports that seeking gourmet recipes can influence up to 72% of foods ingested. On the other hand, searching for gourmet recipes, when associated with dissatisfaction regarding thinness, generally occurs with females with an anorexic profile who show some curiosity about food, but lack of appetite [30].

We have observed that the relationship between self-image and the information in the media increases with contents related to disease prevention for females who might have excess weight or a distorted body view. These factors increase dissatisfaction due to obesity and decrease body satisfaction, which is consistent with other Brazilian studies [11,21,34]. Literature shows that there is a relationship between health and body shape in contents, which contribute to body dissatisfaction [5-8,11,24,30,34].

Among males, information about disease prevention was associated with lower practice of physical activity. According to Shepherd [35], the difficulty in following healthy models may be related to an optimistic bias, in which an individual does not realize his/her real risks and needs and does not have the necessary encouragement to change his/her behavior. We could also consider that these students are seeking information in order to change their behavior in the near future, as described by the Trans theoretical model [36].

It is interesting to observe that when males search for information in order to control or lose weight, as much as females when they search for ways to increase lean mass, there tend to be good choices related to both reducing hedonistic behavior and body construction, respectively. This demonstrates that such information was not persuasive for these groups unlike the research that shows that images with skinny or muscular bodies in the media maintain a relationship with disordered eating, as well as an increase in the practice of physical activity.

When we see different behaviors and their relationship with the impact of information coming either from professionals or the media, we observe that consumers build mental models to make their choice management process coherent. In this, there is a possibility that they could relate to science, internet, celebrities or other sources. It would be an interesting idea to consider these aspects in studies related to

health communications, so we could obtain a better translation of scientific information into popular knowledge [37].

Limitations

This research was carried out with a cross-cut when assessing information and the college students were not representative of the Brazilian young population. Risky behavior for eating disorders is assessed with standardized questionnaires. However, this work aimed to create one single instrument to associate information from professionals and media with different behaviors, which, as a whole, can also predict such behaviors. This work does not establish a cause and effect relationship, but it does allow for directions that could be useful to improve health information, which would then contribute to a decrease in risky factors for problems related to the practice of physical health, body image and eating.

Conclusion

The current role performed by nutritionists and physical educators must encompass health as a whole for college students, including concepts for their body care or physical activity and eating plan, in order to decrease the likelihood of disordered eating. On the other hand, the communication model used to spread information regarding disease prevention must be reviewed, since it has not proved to be effective in promoting healthy choices. The act of searching for gourmet recipes must be continuously assessed, due to the escape relationship it may present for females with regards to the practice of physical activity and body image.

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