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**PREVIOUS THESIS TO THE OBTAINING OF THE I TITLE OF LICENSED IN NUTRITION AND COMMUNITY HEALTH**

**"I CONSUMMATE AND CONSEQUENCES OF SLIMMING AND DIETARY PRODUCTS IN ADOLESCENTS OF THE SCHOOLS "INSTITUTE TULCAN" AND "INSTITUTE SACRED HEART DE JESUS" OF THE CITY DE TULCAN, COUNTY OF THE CARCHI."**

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SCIENTIFIC ARTICLE

CONSUMPTION AND CONSEQUENCES OF SLIMMING AND DIETARY PRODUCTS IN STUDENTS OF THE SCHOOLS "INSTITUTE TULCAN" AND "INSTITUTE SACRED HEART DE JESUS" OF THE CITY DE TULCAN, COUNTY OF THE CARCHI.

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**SUMMARY**

The present study was realized to determine the consumption of dietetic products adelgazantes in 247 student’s women of a fiscal college and another individual of Tulcán's City. Height / age and % of fat was proceeded to evaluate the nutritional condition by means of indicators antropométricos as the index of corporal mass for age (IMC/edad), according to points of court of the WHO, the consumption of dietetic products adelgazantes or of some type of diet it was evaluated by the help of a questionnaire. The information was processed and analyzed in Excel and Epi info, the following results were obtained: 10.5 % (26 students) consumed products adelgazantes and 20,6 % affirmed that it has realized some type of diet. The principal products adelgazantes that they consumed were teas, linseed, tablets, juices of fruits and natural plants, these were consumed every day, though there existed students who consumed occasionally, the emaciated quantity was from 1 to 2 glasses or from 1 to 2 bottles. 15,3 % affirmed that the principal consequence that adelgazantes obtained for consuming dietetic products was it of to going down weight, also they presented nauseas and dream, the principal effect on having realized diet was the depression for not having positive results with the diet. One thought that the teenagers of the fiscal college consume more products adelgazanates that the teenagers of the particular college. 9,7 % (24 teenagers) presented some degree of delay in the height and 2 % overweight, there were no cases of obesity. The delay in height was more evident in the students of the fiscal College with 12,0 % whereas in the Particular alone College 6,2 % was registered, scarcely 0,7 % of the teenagers of the Fiscal College presented some degree of overweight and 4,1 % of the students of the Particular College.

Key Words: slimming Products, diet, adolescents, nutritional status.

**INTRODUCTION**

At the present time the consumption of dietary and slimming products for the adolescents, is an outstanding, given problem the high percentage of cases that you/they are presented.

In the Ecuador there is a wide list of products to get especially off weight that you/they are consumed, for the adolescent women, and the authorities of health don't control their sale. This situation could have serious problems for the health and until the death. Also, they are expended considered fármacos freely "diets rebound" called this way because after the treatment the patient puts on weight again; these medications sell in pills, teas, powders, patches, syrups. They are expended in pharmacies, centers naturists, buses, to home, and you publicitan for printed means, of television, internet, or of a person to otra.

The present work, had the purpose of identifying the consumption and consequences of slimming and dietary products in students of the schools "Institute Tulcán" and "Institute Sacred Heart of Jesus" of the city of Tulcán, with the purpose of proposing an action plan that helps to reduce the indiscriminate consumption of these slimming dietary products and the subjection to the realization of inadequate diets, besides evaluating its nutritional state to try to determine if the students of the selected Schools present some grade of malnutrition or retard in size.

**OBJECTIVES:**

**General:**

* To determine the consumption and the consequences of slimming and dietary products in Students of the Schools "Institute Tulcán" and "Institute Sacred Heart of Jesus" of the city of Tulcán county of the Carchi.

**Specific:**

1. To identify the type of slimming and dietary products and the frequency with which the adolescents of the selected schools consume.
2. To identify the consequences that produces the consumption of slimming products in the adolescents.
3. To identify if the students carry out some diet type to reduce their weight
4. To evaluate the Nutritional State of the Students, by means of indicative antropométricos.
5. To design an action plan to diminish the consumption of slimming products.

**METHODOLOGY:**

**Study type:**

This study was of descriptive type because the observed situation was described and of Traverse Court because he/she was carried out a single time.

**Localization:**

This study was carried out in the registered adolescents of the Schools "Superior Technical Institute Tulcán, fiscal school located in the street Rafael Arellano in front of the IESS and in Jesus' Institute Sacred Heart, particular school located in the street Columbus in front of the Red Cruz, the two schools located in the city of capital Tulcán of the County of the Carchi.

**Population of Study:**

Initially the study population belonged to 450 student’s women of the diversified cycle of the selected Schools of the City Tulcán, 275 students women were of the "Superior Technical Institute Tulcán" and 175 students’ women of the "Institute Sacred Heart of Jesus."

In spite of the fact that he/she had the authorization of the rectors of the selected schools, the General Inspectors presented some difficulties, for what one worked with 247 students women of first and second years of high school with a total of 150 students women of the "Superior Technical Institute Tulcán" and 97 students women of the "Institute Sacred Heart of Jesus."

**Definition of Variables:**

* Consumption of slimming and dietary products:
* Type
* Frequency.
* Quantity or dose
* He/she carries out some diet type:
* Diet Type

* Illnesses and consequences for the consumption of slimming and dietary products.
* Anemia.
* Decrease of weight
* Decrease of the appetite
* Fatigue
* Estrés
* Changes in the person's humor
* Others

* Nutritional state:
* Weight
* Carves
* Age
* Sex

**METHODS TECHNIQUES AND INSTRUMENTS FOR THE GATHERING OF THE INFORMATION.**

**Consumption, realization of diets, frequency and dose of slimming and dietary products.**

To investigate the consumption, realization of diets and frequency of slimming and dietary products, a properly designed survey was applied and validated to obtain this information you proceeded to gather by means of interview singular to each adolescent.

 **Illnesses or consequences for the consumption of slimming and dietary products.**

To obtain this information, a survey was applied, and by means of the interview he/she registered this information in form singular.

**To evaluate the Nutritional state:**

The nutritional state was evaluated by means of the indicative antropométricos IMC/EDAD and TALLA/EDAD and% OF FAT according to the court points recommended by the OMS.

IMC / AGE

* Less 5 percentile = I Lower Weight
* 5 - 85 percentile = Normal
* 85 - 95 percentile = it has more than enough weight.
* Bigger¢to 95 percentile = Obesity.

TALLA/EDAD

* But 2 OF - 2 OF = Normal.
* Less 2 OF = I Slow in the Size.

% OF FAT

* Of 10 to 14% first floor
* Of 15 to 21 normal%
* Of 22 to 24% has more than enough fatty moderate
* Of 25 to 27% has more than enough fatty in risk
* Of 28 to 30% obesity
* Of 31 to 33% obesity in risk
* more than 34 morbid obese%

**Prosecution and analysis of data:**

You proceeded to the cleaning of obtained data of the forms applied the students of the selected schools, then you proceeded to carry out the prosecution in the suitable program, then you proceeded to the elaboration of a database in Excel and the analysis it was made with the support of the computer program Epi info. It was also used the bases of the descriptive statistic.

**RESULT AND DISCUSSION**

**CHART 1**

**GROUPS OF AGE OF THE ADOLESCENTS OF THE SCHOOLS INSTITUTE TULCÁN AND INSTITUTE SACRED HEART DE JESUS**

In the chart 1 you can verify with clarity that most of adolescent women (38,8%) interviewed they are among 15 to 16 years of age, continued by the age group among 16 to 17 years with 29.9%; 23% is in the age from 14 to 15 years and so alone 2.8% of adolescents is bigger than 17 years. 60,7% of the adolescents attended regularly classes in the School Fiscal Institute Tulcán, while 32,9% was students of Jesus' School Particular Sacred Heart. It is also important to point out that 74% of adolescents studied the 2do of high school and 26% they studied the 1ero of high school.

**CHART 2**

**NUTRITIONAL EVALUATION OF THE ADOLESCENTS OF THE SCHOOLS INSTITUTE TULCÁN AND INSTITUTE SACRED HEART DE JESUS OF THE CITY DE TULCÁN WITH THE INDICATOR CARVES / AGE AND THE INDICATIVE IMC/EDAD AND% OF FAT**

In the chart 2 are seen that most (90,3%) of adolescent women they meet with a normal nutritional state. 9.7% meets with retard in size, this it is a serious problem, since the women with retard in size or chronic malnutrition have bigger probability of having children with drop it carves the mother since with size it lowers he/she has the small uterine cavity that doesn't allow the boy to be developed usually and have a normal size, giving place that also presents retard in the size.

According to the indicative IMC/EDAD, the interviewed adolescents meet with a normal nutritional state almost in their entirety 98% and alone 2% of women meets with an overweight and there were not cases of obesity. These results reflect that the adolescents maintain healthy alimentary habits, they carry out frequent physical activity or because during this age the adolescents worry about their figure and they try to maintain their figure inside the normal thing by means of the consumption of slimming products.

34,4% of the students presented a% of normal fat, he/she gets the attention that 52,6% of students (130) they presented a first floor% of fat, 4% presented a moderated% of fat and so alone a student presents morbid obesity. These results reflect that the adolescents every time they take care of their figure by means of the consumption of slimming products that you/they are contraindicated and that they can cause negative consequences in the future.

**CHART 3**

**CONSUMPTION OF SLIMMING DIETARY PRODUCTS OF THE ADOLESCENTS OF THE SCHOOLS INSTITUTE TULCÁN AND INSTITUTE SACRED HEART DE JESUS OF THE CITY DE TULCÁN**

In this chart it is appreciated that 10,5% of the adolescent women consumed some type of slimming dietary products, this means that 1 of each 10 adolescent women undergo this treatment to maintain its figure inside the normal values.

 Of the total of adolescents that you/they consumed slimming products 6.1% he/she affirmed that it consumed slimming teas, you dilute aromatic or liquid, 2.4% manifested that it consumed medications or dietary products and less than 1% he/she testified that it used the natural medicine as the linseed, "prepared of juices", "it removes the appetite."

Most of the adolescents (6,9%) they consumed slimming dietary products to newspaper and 3.6% it consumed from time to time or with little frequency. As for the quantity of slimming drinks that you/they consumed, the 5, 3% manifested that they took from 1 to 2 glasses for day of teas, aromatic or liquid waters, 3.6 remaining% consumed from 1 to 2 bottles per day; and you grieve 1,2% they used slimming dietary capsules, which consumed to newspaper.

These results are alarming, since it was thought that the adolescents of the fiscal schools didn't consume slimming products, however, it is important to mention that contrarily to what a lot of people believe, these products are not good to lose weight, in fact there is a change in the corporal composition or a physical modification, chemistry, biological or of another nature that can produce the effect in the moment that she stops to waste away I/you/he/she bounces and ascend of weight again. He/she has also been able to verify that this type of products is many in the market that you/they are announced to newspaper in the press, in magazines of beauty, health, television and without any medical orientation.

**CHART 4**

**TREATMENT BY MEANS OF DIETS AND TYPE OF DIETS THAT THE ADOLESCENTS OF THE SCHOOLS INSTITUTE CARRY OUT TULCÁN AND INSTITUTE SACRED HEART DE JESUS OF THE CITY DE TULCÁN**

20.65% of the adolescent interviewed women informed that he/she carries out some diet type. Of this total 58.8% affirmed that to make diet is "not to eat carbohydrates, fat at night and to carry out exercise"; 35.3% manifested that its diet consisted in "to eat so single vegetables, fruits, it dilutes" and 5.9% only consumed "single dietary products, vegetables, fruits or in its case they don't eat anything and they carry out exercise.

These results reflect that the population's group doesn't have appropriate knowledge on what is to make diet for what is important to guide them so that they adopt practical of healthy feeding that contribute macro and micro nutrients in quantities required according to its age, sex and energy expense. In front of this situation it is important to plan and to implement a program of alimentary and nutritional education about the importance of a feeding that covers with the nutritional requirements for the adolescent women.

CHART 5

PRODUCED EFFECTS FOR THE CONSUMPTION OF SLIMMING DIETARY PRODUCTS IN THE ADOLESCENTS OF THE SCHOOLS INSTITUTE TULCÁN AND INSTITUTE SACRED HEART DE JESUS OF THE CITY DE TULCÁN

When analyzing the chart it is observed that 34.61% of the adolescent women that consumed slimming dietary products had some change in its body, 3.84% affirmed that I eliminate the fat of its body or it was good him for the growth. Among the effects that he/she brought I get the consumption of slimming products it was found that 15.38% experienced it nauseates, vomits, dream, 7.61% experienced sickness, anemias and so alone 3.84% experienced the development of a gastritis in its stomach.

Among the results that they obtained the adolescents that underwent the dietary treatment, 43.13% they obtained a weigh loss in their body, 3.92% improved its health and 47.05% he/she didn't have results with the carried out diet. Among the not wanted effects that they experienced the interviewed adolescents that they underwent diet it was found that 7.84% had depression for not obtaining prospective results and less than 6% approximately experienced sickness and gastritis. These results reflect that the adolescents don't know that the lack of foods or nutritious indispensable for the good operation of the organism he/she brings I get negative consequences in their health that you/they can be to medium or I release term, for what is important, in urgent form to plan actions to contribute to strengthen the knowledge and practical alimentary.

**CHART 6**

**IT CONSULTS WITH PROFESSIONALS IT FORESAW ALCONSUMO OF SLIMMING DIETARY PRODUCTS OR SOME TYPE OF DIET**

Approximately 42.3% of the adolescents that consumed slimming dietary products consulted with a professional of health to carry out some diet type; of the alone total 30.76% consulted with a deportologa and/or nutritionist, 7.69% visited a center naturist and 3.84% you/he/she consulted with a gymnastics instructor. With this reflective information that very few adolescents go to request help to make diet with professionals that manage the topic, and other they come closer to request help to people that don't manage the feeding area and nutrition and they would not be under conditions of toasting in appropriate form this orientation type.

**CHART 13**

 **NUTRITIONAL STATE OF THE ADOLESCENTS ACCORDING TO TYPES OF THE SCHOOLS "INSTITUTE TULCÁN" (I ASSOCIATE FISCAL) AND INSTITUTE "SACRED HEART DE JESUS" (I ASSOCIATE MATTER)**

In this chart it is observed that the retard in size is bigger in the adolescents of the fiscal school, which reaches to 12%, in the particular school, the adolescents presented a retard in size that it reached to 6,2%. it is Also appreciated that according to the IMC/EDAD in the Institute Tulcán that is a fiscal school, grieves he/she found 1 case of overweight and in the Institute Sacred Heart this prevalencia reached to 4.1%. These results you confirmed, when determining the% of fat, since 4% presented a% of fat corporal moderate and so alone 1 student I present morbid obesity in the schools matter and fiscal respectively. When analyzing the first floor percentage of fat in the adolescents of both schools it is appreciated that 56,3% and 55,7% presented low percentages of fat, this it is a serious problem that can affect the health of the adolescents if they are not carried out actions to improve.

**DISCUSSION**

The increment of the consumption of slimming dietary products goes every day in increase according to the reports of the revised medical literature. In Ecuador the concern to lose weight with aesthetic ends is a reality, the society it is invaded by images of perfect bodies that invite the population continually to reduce weight and to imitate the pattern, by means of the consumption of slimming dietary products.

In this study it was found that 2% of the interviewed students presents overweight, 9,7% of the students presents some retard grade in size and 52,6% of the students they presented a low percentage in fat. With this information it is demonstrated that this population doesn't still present a turnaround of overweight and obesity like in other countries. However, it is important to meditate on the retard in the size of the students that can be the reflection of an inadequate growth in the caused first years of life because the adolescents didn't have a feeding and healthy lifestyles. It is also important to meditate on the obtained first floor level of percentage of fat, this can be the effect of the consumption of the slimming products, of continuing with their consumption, it is possible that he/she diminishes fatty and consequently to cause illnesses for the insufficient reservation of corporal fat.

10,5% of the adolescents consumes dietary products, 6,1% consumes slimming teas, you dilute aromatic and liquid, this percentage is similar to the one observed in other countries, although it was thought that the consumption could be null, given the faulty socioeconomic conditions of the adolescents, especially of the fiscal school. It is also necessary to emphasize that the 20,65 of the interviewed students that it doesn't satisfy them alone the consumption of slimming dietary products but rather they also carry out some diet type that is characterized by the decrease of the consumption of certain foods that you/they contribute nutritious indispensable to the necessary organism for the physical so much development and intellectual.

Among the main consequences that caused the consumption of slimming dietary products the following ones they were pointed out: to get off weight, it nauseates, I dream, sickness, anemias and gastritis which are related with the type of products or diet type that you/they carry out. However, it was determined that the students didn't consult with a professional of health.

In what concerns to the consumption of foods, it is possible that a deficit exists in the energy contribution, protein and hydrates of carbon and of micronutrientes and an excess in the consumption of fat because they consume foods sources that contribute great quantity of fat.

Based on the results, he/she intends to execute an action plan to motivate the students on the effects negatives in their health that can cause the consumption of slimming dietary products and the consumption of not very healthy diets that it could unchain serious problems of health to long, he/she intends to offer alimentary education by means of chats or constant conferences, planning of medical campaigns for the control and prevention of illnesses taken place by the consumption of slimming dietary products. On the whole this proposal will contribute to achieve a healthy student atmosphere.

**CONCLUSIONS**

* The adolescents of the Schools Institute Tulcán and Institute Sacred Heart of Jesus have demonstrated that with such of it turns well and to be up to date is able to carry out any diet type or to consume any slimming dietary product that you/they offer them without analyzing the repercussions in their health that you/they can cause in the future.
* 10,5% of adolescents consumed slimming products that consisted on natural Linseed, Chinese Teas to lose weight, slimming Pills and it removes the appetite, Juices of fruits and boil natural, Liquids, Tips of diets, Products light.
* The students need to acquire knowledge so that you autoevalúen their nutritional state and observe that most of they are inside the normality so that they don't undergo the consumption of these products or to make diet to lose weight putting in risk their own health.
* The adolescents don't have healthy alimentary habits they consume the foods that are expended in the bars of their schools, such as (doritos, inakeys, French fries, chitos, chocolates, etc.) which in many of the cases these foods contribute hollow calories what you/they don't benefit the students
* Students should acquire a purchase notion and consumption since in the moments of the recesses of that great part it will depend the nutritional state that the students of the Schools Institute can acquire Tulcán and Institute Sacred Heart of Jesus.
* Most to of adolescents they presented a normal nutritional state evaluated through the IMC/edad and talla/edad. however, he/she was a retard prevalencia in size of about 10% and of overweight of 2% and there was not obesity.
* Most of students that consumed slimming dietary products were of the school Institute Tulcán, fiscal school, result that desvirtúa the belief that you/they don't waste away these products in the fiscal schools
* Most of students that presented retard in size were students of the school Institute Tulcán with 12% while in Jesus' Institute Sacred Heart he/she was 6,2%.
* Of the students that carried out some diet type it was found that the students of the Institute Tulcán carried out in more proportion (21,3%) that the students of Jesus' school Institute Sacred Heart (19,6%)

RECOMMENDATIONS

* To offer alimentary education to the students of the selected schools, family parents, professors about a healthy feeding and the practice of physical activity to maintain a nutritional state inside the normal limits.
* To develop shops has more than enough alimentary education with parents, teachers, students so that in the future you can prevent problems related with the nutritional state for this way to avoid illnesses related with the weight of the students.
* To watch over the nutritional state and the consumption of the slimming products of the adolescents with the purpose of controlling the problems that can cause their consumption.
* To guide to the retailers of foods of the bars of the schools so that they blindfold foods with high nutritious value.
* To request to the Ministry of Health that controls the sale of slimming products to prevent problems of health associated to their consumption
* To socialize these results in the different levels to make know the negative effects that it can cause the consumption of the slimming products without medical prescription.

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