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## Effects of herbal drink on overweight among young adult women

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### Abstract

Overweight and obesity are defined as abnormal or excessive fat accumulation that may impair health. Lifestyle and behavior choices are important factors in influencing weight status. Unhealthy diets and physical inactivity are major risk factors for overweight and obesity as well as a number of chronic health conditions including cardiovascular disease, diabetes, some cancers and high blood pressure. Herbs and herbal extracts contain different phytochemical compounds with biological activity that may provide therapeutic effects.

**Keywords:** Obesity, herbs, phytochemical

### 1. Introduction

Obesity and overweight are the complex condition with biological, genetic, behavioural, social, cultural and environmental influences. Herbal drink provides the extra minerals and nutrients from the extract of natural herbs that are present in the drink. Several herbs help to reduce high blood cholesterol concentration, overweight, provide some protection against cancer, and/or stimulate the immune system <sup>[1]</sup>. Fennel seed (*Foeniculum vulgare*) are the natural appetite suppressant and help in weight maintenance and weight loss. Fenugreek (*Trigonella foenum-gracum*) are full of fiber they prevent obesity and high fiber intake is associated with lower body weight and body fat <sup>[2]</sup>. Cinnamon is also thought to have health benefits. Cinnamon is a spice that has long been used for medicinal purposes, in addition to flavoring food. Recent data lends credibility to claims that using a cinnamon diet to lose weight may be effective <sup>[3]</sup>.

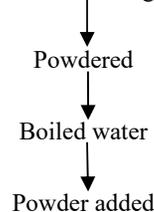
The objective of the study was to study the effect of herbal drink on overweight subjects.

### 2. Methodology

In this study fennel seed, fenugreek, cinnamon are selected for prepare herbal drink.

Preparation of herbal drink

Roasted powder of Fennel seed, Cinnamon and Fenugreek



3 g of herbal powder mixed with 150 ml of hot water with the ratio of 3:3:1 as fennel seed, cinnamon and fenugreek respectively.

### 3. Results and Discussion

The table 1 reveals that 3 g of herbal drink contain 9 kcal energy, 1.57 g of carbohydrate, 0.35g of protein, 0.23g of fat, 29.09 mg calcium, 0.03 mg of Vitamin C and high amount (1.30) of fibre.

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**Table 1:** Nutritive value of the developed Herbal powder (3g)

S.I. No	Nutrients	Quantity of nutrients
1	Energy (kcal)	9 kcal
2	Carbohydrate (g)	1.57 g
3	Protein (g)	0.35g
4	Fat (g)	0.23g
5	Fibre (g)	1.30g
6	Calcium (mg)	29.09 mg
7	Vitamin C (mg)	0.03 mg
8	Carotene (µg)	1.44
9	Riboflavin (mg)	0.006 mg
10	Cryptoxanthin (µg)	1.66

**Table 2:** History of family illness

Condition	Number	Percentage
Obesity	30	75
Diabetes mellitus	16	40
High cholesterol	7	18
High blood pressure	5	13

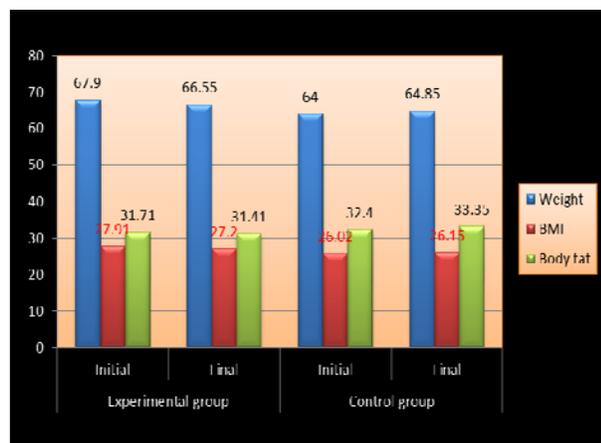
The family history of the subjects reveals that 40% of the subjects had diabetes mellitus, 18% of them had high cholesterol and 13% of them had high blood pressure.

**Table 3:** Effects of Herbal Drink Supplementation on Weight Reduction

Measurements	Standard	Experimental group (20)					Control group (20)				
		Before supplementation	After supplementation	Difference	't' value	Sig.	Before supplementation	After supplementation	Difference	't' value	Sig.
		Mean±SD	Mean±SD				Mean±SD	Mean±SD			
Weight (kg)	52.6«	67.90±10.46	66.5±10.6	1.35	3.857	0.001**	64.0±9.97	64.85±9.16	-0.85	-1.40	0.17 <sup>NS</sup>
BMI	<23#	27.91±4.18	27.20±3.9	0.71	1.388	0.181 <sup>NS</sup>	26.02±2.36	26.15±2.27	-0.13	-1.01	0.32 <sup>NS</sup>
Body Fat (%)	<30»	31.71±4.06	31.41±4.6	0.3	0.806	0.43 <sup>NS</sup>	32.40±3.53	33.35±3.86	-0.95	-2.97	.008*

« ICMR Standard (2000), # IOTFC Standard, »Heyward and Wagner (2004)

\*\*1% level of significant, \*5% level of significant, <sup>NS</sup>-Non significant



**Fig 1:** Herbal drink supplementation on weight reduction

The table 3 and figure 1 shows that there was decreased in weight at the result of supplementation of herbal drink. The weight was reduced in 0.01% significant level in experimental group compared to control group. The mean difference of experimental group was (1.35) and control group was (-0.85). The initial value of experimental group was (67.90±10.46) and decreased as (66.55±10.63). Body fat content was significantly (5%) increased in control group.

**Table 4:** Health effects of herbal drink among supplementary group

Advantages	Number	Percentage
Control constipation	4	20
Control flatulence	6	30
Other	-	-

The table 4 reveals that 20% of the subjects were opinioned that herbal drink reduced the problem of constipation and 30% of the subjects felt that drink reduced flatulence.

**4. Conclusion**

Eating habits and physical inactivity induced to weight gain, they lead to obesity or overweight. Herbal drink (fennel seed, fenugreek, cinnamon) can be reduces the weight and it helps to reduces the body fat also. Herbal drink helps to control the problem of constipation and flatulence.

**5. References**

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