Original Article

Impact of Subsidy of Dairy Products on Youth Health: Case Study District Hyderabad

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ABSTRACT

This study examines the relationship of subsidy of dairy products on intake of milk and milk by products. In this contest we also examined the protective effects of milk against fatal diseases, the per day cost of intake for dairy products and determine current consumption level of milk in different age groups.

STUDY PERIOD & DESIGN: The study was conducted during January to April 2013 at district Hyderabad Sindh Pakistan. The sampling subject was youth age group 16-25 years and sample size was 200. In this questionnaire base study primary and secondary data was collected.

RESULT: The results were concluded through Z test and categorical analysis. It is found out that, due to high price about 70% youth is unable to consume milk and other dairy byproducts. Therefore, they come across with numerous health issues such as low capacity of work, eye sight problem, low body weight and height, having difficulty to take part in competitions like marathon, body building, and athletics. Also, it is concluded that about 40% subsidies on milk price may raised to 80% consumption level in youth.

KEYWORDS: Subsidy, Dairy Products, Youth Health and Youth Health Issues.

INTRODUCTION

Milk is very delicious food for human consumption and got natural capability to give immediate and easy supply of diet, it is also source of Yoghurt, Cheese, Butter, Ghee and other dairy byproducts. The young people should consume 9 ounce of milk per day or devour the comparable amount of supplementary dairy products ([1]. The consumption of dairy products assists in reducing the peril of high blood pressure, corpulence, stroke, heart diseases and so on. The United States Department of Agriculture (USDA) suggests 3 cups of milk/per day for man to provide essential nutritional value to body[(2)], The Table I shows the basic ingredients of milk and their functions to keep system healthy and produce healthy blood cells. Vitamin A fights against eye diseases; Zinc makes immune system strong, Vitamin B is beneficial for healthy skin; Vitamin C is vital for immune system; Iodine regulates and maintains the metabolic rate of the body, Calcium is used for healthy teeth and bones; protein serve as body builder. Despite the high nutritional value of milk, the major limiting factor for intake of dairy products in Pakistan is its high prices. In essence, most of social and health institutions accept the significance of consumption of dairy products but the inflation has severely affected the consumption level among common person and dragged them away from intake of milk and dairy byproducts[(3).] The Table II illustrate the per day cost of dairy products suggested for a young person.

TABLE I:
NUTRITIONAL VALUE OF ONE GLASS OF MILK

1. Protein(g)	7.2
2. Calcium (mg)	247
3. Phosphorus (mg)	194
4. Magnesium (mg)	23
5. Sodium(mg)	89
6. Potassium (mg)	321
7. Chloride (mg)	189
8. Iron (mg)	0.04
9. Zinc(mg)	0.8
10. Copper (mg)	Trace
11. Selenium(mg)	2
12. Iodine	62
13. Vitamin A(mg)	39
14. Thiamin (mg)	0
15. Riboflavin (mg)	0.5
16. Niacin (mg)	0.2
17. Floate (mg)	19
18. Vitamin C (mg)	4

Source: Dairy Nutrition and Health Review, UK

TABLE II: COST OF PER DAY INTAKE OF DP

No DP	Qty	Price
Fresh Milk	200 ml	18.75
Yogurt	150 g	15
Cheese	30 g	25
Total		58.75

Source: Survey Data Conducted DP = Dairy Product

The vitamins, minerals and other ingredients works as life moving source in human body, and by grace of nature all precious nutritional sources has combined in a single product i.e. milk. Apart from amazing nutritional value of milk the darker aspect of the picture is its high market price and reduced purchasing power of public [4] especially youth. In this regard, the current prices in Table II show current prices of dairy products, which are expensive and therefore out of reach of the common person mainly youth. In short Pakistani nation, due to low per capita income, is not consuming required quantity food [5]; therefore it is very hard to consume milk. However milk is very indispensable regardless of its price, as it is just not the source of energy or nutrition but it also protect human body from fatal diseases as well, see Table III.

TABLE III: BIOACTIVE ELEMENTS IN MILK BENEFICIAL FOR HUMAN HEALTH

*NRF	*MPC	*MFC
CANCER	Whey proteins Casein Lactoferrin - α Lactalbumin Peptides	Conjugated linoleic acid Vaccenic acid Sphingolipids Butyric acid 1 3-Methyltetradecanoic
CARDIOVASCULAR	Whey proteins Casein	Acid Ether lipids
HYPERTENSION	Whey proteins	Conjugated linoleic acid
IMMUNE RESPONSE	Whey proteins MFGM1 proteins	Oleic acid Omega-3 fatty acids
BONE HEALTH	Peptides	Conjugated linoleic acid

Source: Bauman, et al, 2006

NHF = Name of Health Factor, MPC= Milk Protein Component, MFC= Milk Fat Component

Table III shows protective and supportive function of the milk; it provides healthy bones, helps in development and growth of the teeth, provide hydration and help in digestion[6]. It is helpful in preventing obesity, blood pressure, cancer and cardio vascular diseases [7]. Hence, to make sure that a common citizen can purchase and consume milk products, the most of countries; like USA, UK, European Union, Brazil, Malaysia and Singapore[8]; provides subsidy on dairy products[9&10]. However, people in Pakistan are deprived from such facility. This research conducted to identify the impact on milk and milk byproducts by youth aged 16-25 years, if government provide subsidy on milk and milk byproducts.

Objectives

To examine the importance of subsidy on dairy products, identify the effect of subsidy on consumption level of dairy products and investigate the proportion of population do not consume dairy products due to high price

MATERNAL METHOD

It is a questionnaire base study, conducted during (January to April 2013). Data was collected from youth of Hyderabad region with age group of 16 to 25. The variables' collected includes age, income, gender, frequency of dairy products intake, price, relationship of income and consumption of milk and impact of low and high consumption of dairy products on youth health. The questionnaire was distributed among targeted sampling area. The impact of consumption of dairy products is measured through current body weight, energy level and tendency of occurrences of diseases. Also the frequency of milk intake was examined with reference to high or low income of respondents. The Z-test was used to examine that if the subsidy on milk is provided then will it increase the milk production. The SPSS (16.0) software was used for the calculation of the data.

RESULTS

The data was organized in tabulated form. The table III illustrates the data of 200 youth in compact form; it consists of 20 numbers and each number is actually average of 10 youth, so in essence Table III highlights data of 200 youth.

The Table IV is the analysis of employment status of each respondent. This analysis helps in understanding the income level which ultimately helps in understanding about purchasing power of youth.

Among 200 participants only 10% (20) were employed either part time or full time. This indicates that "typically youth whose age is between 16-24 are unemployed and depends upon the income of their parents; therefore they are unable to buy and consume the things of their choice including dairy products. We

TABLE IV: THE DATA OF MILK SUBSIDY AND CONSUMPTION

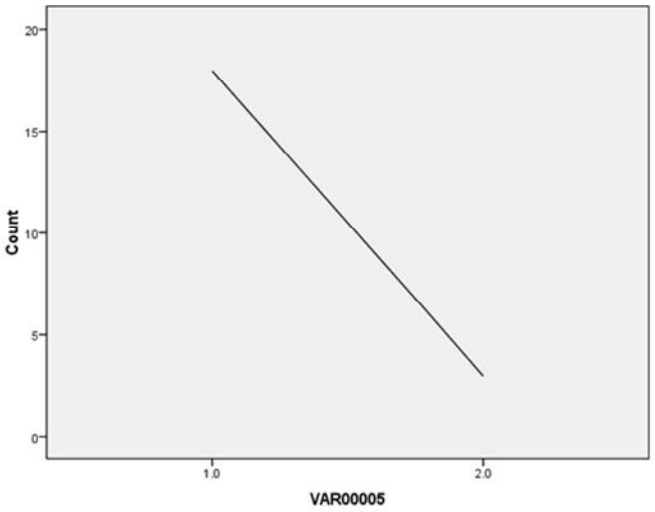
*AG	*E	*PMPI (Rs)	*TFMH	*ES	*Gender	*CMSG
1	S	1	7	2	1	1
1	G	3	8	2	1	1
1	UG	4	6	2	1	1
1	S	3	5	2	1	2
1	G	2	6	2	1	1
1	UG	1	7	2	1	1
1	PLE	3	7	2	1	2
1	G	3	6	2	1	1
1	G	4	4	2	1	1
1	G	1	6	1	1	1
2	G	2	6	1	2	1
2	G	2	6	2	2	1
2	G	1	6	2	2	1
2	UG	1	7	2	2	2
2	G	2	7	2	2	1
2	UG	2	7	2	2	1
2	UG	2	8	2	2	1
2	G	2	7	2	2	1
2	G	3	7	2	2	1
2	G	3	7	2	2	1

PLE= Primary Level Education, S= Secondary Level, UG= Undergraduate, G= Graduate, AG= Age Group in Years, AG -1=16-20, AG-2= 21-25, G1= Male, G2= Female, PMPI= Per Month Parental Income I=25000-35000, 2=35000 -45000 3 =Less than 20000,-4 More than 40000, ES-Employment Status, E 1=Employed –UE 2= Unemployed, TFMH= Total Family Members in Household, CMSG= Consume Milk if Subsidy is Given CMSG 1= Yes CMSG-2= No.

also analyzed that if the subsidy is given on dairy products; will it increase the consumption level of dairy products?

The contingency table IV highlights the results which showed that if the subsidy on dairy products is provided then the consumption level of milk and milk by-products will increase as high prices or low income level is directly related to milk consumption. Moreover, the current income level of youth does not allow them to buy dairy products frequently. In this context, the Graph I further highlights the results.

GRAPH I: AN ANALYSIS OF SUBSIDY AND CONSUMPTIONS OF DAIRY PRODUCTS



The Graph I shows the statistical result of categorical analysis. The tendency of line is towards 01, which means the milk consumption will increase if government provide subsidy on milk and milk by products.

DISCUSSION

The result showed that youth aged 16-24 depends upon their parent's income. In this connection, it is found that the income of the majority of households in Hyderabad is about Rs 4, 00,000-450,000/per annum. On the other hands, the retail price of fresh milk and milk byproducts is high. Therefore, tendency of intake of dairy products in middle income people is significantly low. The study discovered that the current price level of dairy products hampers to common people to consume required level of dairy products. However, it is concluded that if the government provide about 40% subsidy on milk, yoghurt cream prices then it increase the consumption level of milk. This finding came on the basis of opinion of 80% respondents who agreed that the main barrier in consumption of dairy products is high prices which is out of their affordance level. The study further explored that due to low consumption of dairy products about 65% people suffer numerous health issues like low weight, low height, and incapability to carry weight and low work capability. Thus, the prompt consideration on providing subsidy on dairy products or reduction of prices is required to create a healthy youth and a healthy society.

TABLE V: CONSUME MILK IF SUBSIDY IS GIVEN

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
VAR00005	21	1.0	2.0	1.143	.3586	2.202	.501	3.138	.972
Valid N (listwise)	21								

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