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To Link this Article: http://dx.doi.org/10.6007/IJARPED/v3-i1/830

DOI: 10.6007/IJARPED/v3-i1/830

Received: 15 January 2014, Revised: 16 February 2014, Accepted: 12 March 2014

Published Online: 29 March 2014

In-Text Citation: (Arshad & Ahmed, 2014)

**To Cite this Article:** Arshad, N., & Ahmed, U. (2014). Impact of Breakfast Habits on Education Performance of University Students (A Study Conducted on University of Sargodha, Pakistan). *International Journal of Academic Research in Progressive Education and Development*, *3*(1), 271–286.

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Vol. 3(1) 2014, Pg. 271 - 286

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ISSN: 2226-6348

### Impact of Breakfast Habits on Education **Performance of University Students** (A Study Conducted on University of Sargodha, Pakistan)

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#### **Abstract**

The present study was conducted to find out the breakfast habits on the academic performance of university students. The major objectives of the study were to find out the breakfast habits of students and their academic performance. The nature of the study was quantitative and Population was the students of university of Sargodha both male and female. Malty stage sampling technique was used for the collection of data. A sample of 240 respondents was taken from 16 departments of 7 faculties, while 15 students were taken from each department. Data were collected through simple random and convenient sampling; in this research 16 departments were selected through lottery/fishbowl method to collect the data. The study found that most of the students skip their breakfast mostly and consumed less fruits, fish, lettuce, and soup. It is found that there is highly association between breakfast habits and education performance the students who consumed less food feel laziness and inactive during study they can't focus on the study. A vast majority of the respondents i.e.47% don't take breakfast often while most of the students missed one time meal often that become the cause of brain damage and makes the student cognitive level low. That becomes the cause of obtained low grades in education.

Keywords: Breakfast & Academic Achievement, Academic Achievement, Food Intake Patterns.

#### Introduction

The purpose of the present study was to investigate the impact of breakfast on the education performance of university students. The researcher wanted to elaborate the relationship between breakfast and education performance i.e the students who don't take proper food with low education performance as compare to who take proper breakfast. Previous studies also exposed that the students, who didn't take breakfast or low nutritional breakfast due to getting up late, laziness, or losing body weight, are unfavorably exaggerated in term of education performance and alertness. This can be harmful in term of low ability to sustain attention or low

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cognitive capacity (Stroh, 1971). The ability to sustain attention can be harmful in many ways it can be harmful in many tasks (Rueckert & Grafman, 1996; Wilkins et al., 1987).

Due to missing breakfast a state of hunger creates, hunger can be defined as physiological and psychological food intake to meet up instant liveliness needs (NCHST, 1997). The hunger can influence by diminishing the ability to sustain attention and ability to learn from new experiences. Small World Communication Survey (1996) stated that laziness, low ability to sustain attention, behavioral problems are common in those students who com school without breakfast according to their teachers perception, this can be decreased their education performance and educational achievements. Teachers stated that the students who are come to school without tacking breakfast were not able to overcome challenges and learning activities (NIN, 1993). In a practicum set at the Milano Pediatria meeting, Giovannini, Agustonia, and Shamir (2010) distinguished that students who ate breakfast confirmed enhanced analytic, immediate memory, concentration, and intermittent recall (Pollitt et al., 1983; Vaisman et al., 19996; Wesnes et al., 2003) the students who don't take proper breakfast, had better education performance as compare to those who missed breakfast.

Though, Giovannini et al (2008) stated that the correct reason for these effects is not entirely implicit. However, in spite of the lack of transparency in this field, it is flattering additional apparent that strong breakfast is valuable to a student's educational achievement and deserves more in detail study to establish the steadfast correlations among breakfast intake and education performance (Florence et al., 2008).

There are three ways of testing data at 1<sup>st</sup> stage previous studies showed the relationship between breakfast on education performance and importance of breakfast. 2<sup>nd</sup> list of tables regarding education performance and breakfast habits, at 3<sup>rd</sup> stage checking the association between breakfast and education performance as well as cognitive capacity and solving mathematical and puzzles questions.

#### **Objective of the Study**

- To find out the socio-economic and demographic characteristics of respondent.
- To find out the breakfast habits of the respondents.
- To find out the educational performance of the respondent.
- To suggests some measures to overcome the malnutrition and improve the academic performance.

#### **Review of Literature**

There are two working set of assumptions about breakfast. The 1<sup>st</sup> one is for the start a good morning breakfast plays key role and provide important nutritional needs to the body. Especially students the reason of this they are in learning process and they have to need more and more energy. Breakfast give them boost for the learning process they have to need boost (CLF, 1997). The 2<sup>nd</sup> point of view about the breakfast is that there is no impact of breakfast on education or behavior (Dickie & Bender et al. 1996).

Vol. 3, No. 1, 2013, E-ISSN: 2226-6348 © 2013 HRMARS

#### **Characteristics of Healthy Breakfast**

The proper breakfast is a "nutrition" that is wealthy carbohydrate as well as string, reasonable in protein and squat in obese, sugar and salt, like fresh fruits, milk, juice, egg, yogurt or cheese is a best breakfast (Rubin, 2003). A well breakfast considered fruits, whole grains, milk, meat or eggs or chicken, and whole grains, cereals, or breads (Student Wellness Office).

#### **Effect of Breakfast on Education Performance**

The most important food of the day is breakfast many research showed that breakfast is the important for two ways. In 1<sup>st</sup> overall health of the students depends on the breakfast consumption, at 2<sup>nd</sup> education performance can be effected due to breakfast intake. Healthy breakfast can improve students many ways like, school attendance, class participation, and progress in identical test scores and increased class participation that makes overall education performance better (SBP). Healthy breakfast can increased cognitive capacity and concentration level (Moheny, 2010). Breakfast's skipping impaired children aptitude to find out, at the same time tacking proper breakfast enhanced students' behavior and education performance (FRAC, 2011). It is also found that the students who are often skipping their breakfast are with low recall memory and often forget the things (Pollitt et al, 1998).

#### **Effect of Breakfast on Cognitive**

There is indicative substantiation that consumption a breakfast that has adequately impartial nutrients which are important for both health and as well as nutrient intake (Bhattacharya et al, 2006) Cognitive capacity or capacity to sustain attention and evoke memory (Wesnes et al, 2003). Pollitt et al, (1982/83) accomplished consequence of short term hunger on solving puzzles and mathematical problems in school children's. Together studies confirmed that breakfast skipping had unfavorable effects on solving mathematical problems and overall education performance.

#### Rationale of the Study

Food is an important part of human life, proper food plays important role in one's life. Proper nutrition is very essential for health and competence. Most of the students tend to be improper eating habits, and consume less food that makes them unhealthy and lazy. If we see the life expectancy in Pakistan it is 45-65 as compare to developed countries where life expectancy is 75-80. The research purpose is to investigate the relationship between breakfast habits and its impact on student health and education performance. The purpose of the study is to see the food intake patterns among university students and see what kind of food they like and also see that food intake differences in girls and boys as well as Hostelized and day scholars students. To see what are the impact of skipping breakfast and short term hunger on the health, education performance and cognitive process of university students.

In 2001, it was noted that malnutrition caused 54% deaths in children living in developing countries, this is not only children, the adults are also facing the problem of malnutrition, this is why the life expectancy is very much low in third world countries especially in Pakistan and due to living in the hostels universities students tends to be more in nutritional deficiencies. Life expectancy in Pakistan is 45-65 years as compare to developed countries where life expectancy is 75 to 80 years.

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Another reason of doing this research is based on my observation and experiences as a university and hostel living student. From my observation as a university and Hostelized student, proper food especially breakfast must be an integral part of good education. In this hostel most of the student's who studied at regular bases missed their breakfast or other meals due to improper time management and the students who studies at self support bases missed their breakfast due to late awakening. And in university they spent most of the time with their friends and class mates in this way they mostly faced short term hunger that has badly effect their education performance and make them apathy during the class lecture and gave them permanent damage. This problem is very common in Pakistani universities especially in university of Sargodha.

#### **Research Methodology**

The present study was quantitative in nature and population of the study was all the students both male and female (Day Scholar, Hostelized, Regular, and Self Support) in of university of Sargodha. The study was conducted in university because purpose was to investigate that to what are "Impact of breakfast habits on education performance of university students" a sample of 240 respondents (male & female both) was taken from the 15 departments of 7 faculties of main campus of university of Sargodha. Departments were selected through simple random sampling by using the fish bowl method and 15 students selected from each department through convenient sampling technique. In the present study, the self administered structured questionnaire was used for data collection. Questionnaire was developed and utilized for both male and female. The data were analyzed using "SPSS v16" program. A number of hypotheses constructed in the light of previously conducted researches, were tested on the basis of empirical evidences taken from data. Pearson Chi-square test was employed to match up observed data. In order to judge the significance associated between attributes, the calculated value of chi square were compared with corresponding table. 0.05 level of significance. The results are considered significant if the calculated value of chi square is greater than tabulated value otherwise regarded as non significant value.

#### **Result and Discussions**

**Table 5.1.** Socio-demographic information of University student (N=240)

Vol. 3, No. 1, 2013, E-ISSN: 2226-6348 © 2013 HRMARS

Sr.#	Characteristics	N	%
1	Student Type		
	Regular	121	50.4%
	Self Support	119	49.6%
2	Gender		
	Male	117	48.8%
	Female	123	51.2%
3	Age		
	17-22	99	41.2%
	23-28	135	56.2%
	29-34	6	2.5%
4	Residence		
	Village	93	38.8%
	Town	47	19.6%
	City	100	41.7%
5	Program		
	BS	87	36.2%
	M.A/M.Sc	138	57.5%
	Ms/M.Phil	15	6.2%
6	Household monthly in	icome	
	10000 – 20000	67	27.9%
	21000 - 30000	81	33.8%
	31000 -40000	40	16.7%
	41000 -50000	26	10.8%
	Above 50000	26	10.8%
7	Family type		
	Nuclear family	90	37.5%
	Joint Family	150	62.5%
8	Student Type		
	Hostelized	141	58.8%
	Day Scholar	99	41.2%
9	<b>Father Education</b>		
	Illiterate	56	23.3%
	Meddle	64	26.7%
	Metric	45	18.8%

Vol. 3, No. 1, 2013, E-ISSN: 2226-6348 © 2013 HRMARS

	Intermediate	30	12.5%
	Graduation	25	10.4%
	Master/M.Phil	20	8.3%
10	<b>Mother Education</b>		
	Illiterate	102	42.5%
	Primary/Meddle	59	24.6%
	Metric	34	14.2%
	Intermediate	19	7.9%
	Graduation	19	7.9%
	Master/M.Phil	7	2.9%

Table shows that 50.4% respondents were studied in regular bases and near about the same i.e. 49.6% respondents were studied at self support bases, while 51.2% respondents were females and near about the same i.e. 48.8% were males. Data also showed that majority of the respondents i.e. 56.2% were belonging of the age group 23-28 while 41.2 % belonging to age group 17 to 22 and only 2.5% were belonging to age group 29-34. It was also found that most of the students belonging age group 17-22 studied in four or five years program and the respondent who belong to age group 23-28 were studied in Master program and the student whose belonging to age group 29-34 were studied in M.Phil program.

Data also revealed that majority of the respondents i.e. 41.7% lived in cities and 38.8% belonged from villages while only 19.6% belonging form towns. It also showed that majority of the respondent's i.e. 57.5% was studied in Master Program and 36.2% respondents were studied in BS program while only 6.2% respondents studied in M.Phil Program. The table also illustrated that 27.9% respondent's household monthly income was 10000 – 20000rupees while 33.8% respondent's has their household monthly income with the range of 21000 -30000 rupees while 16.7% respondent's household monthly income with the range of 31000-4000 only 10.8% respondent's household monthly income was with the range of 41000-5000 the same 10.8% of the respondent's monthly income range was above 50000.

It is also evident from the data that 62.5% respondents were belonged from joint family and rests one's 37.5% from the joint family. Data indicated that 58.8% respondents were hostelized and only 41.2% was day scholar. If we see the father and mother education of the respondent's data shows that the 23.3% respondent's father was illiterate and 26.7 was only meddle while 18.8% was metric, similarly 12.5% was intermediate while 10.4% and 8.3% respondent's father was graduate and master. Data also shows that a majority of the respondent's mothers i.e. 42.5% were illiterate while 24.6% was primary to meddle level of education. Only 14.2% respondent's mothers' education were metric 7.9% respondent's mother education was intermediate and same number of mother education was graduation only 2.9% respondent's mother education was master.

If we see the father and mother education of the respondent's data shows that the 23.3% respondent's father was illiterate and 26.7 was only meddle while 18.8% was metric, similarly 12.5% was intermediate while 10.4% and 8.3% respondent's father was graduate and master.

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Data also shows that a majority of the respondent's mothers i.e. 42.5% were illiterate while 24.6% was primary to meddle level of education. Only 14.2% respondent's mothers' education were metric 7.9% respondent's mother education was intermediate and same number of mother education was graduation only 2.9% respondent's mother education was master.

#### **Education Performance**

Table 5.2:- Academic performance of university students (N=240)

	Sr.#	Education performance		F %	
	1	Graduation	·	·	
			Low	59(24.6%)	
			Medium	131(54.6%)	
			High	50(20.8%)	
	2	First semester			
			Low	153(63.8%)	
24.6%			Medium	58(24.2%)	(n=59)
211070			High	29(12.1%)	( 55)
	3	Second Semester			
			Low	139(57.9%)	
			Medium	65(27.1%)	
			High	36(15.0%)	

university student had low marks in graduation, a vast majority of the university students i.e. 54.6% (n=131) university students performance in graduation was low, and only 20.8% (n=50) university students education performance in graduation was high. a vast majority of university student i.e. 63.8%(n=153) performance in 1<sup>st</sup> semester was low, 24.2% (n=58) university student education performance was medium, only 12.1% (n=29) university students education performance was low in 2<sup>nd</sup> semester was high. 57.9% (n=139) university students education performance in 2<sup>nd</sup> semester was medium, and 15.0% (n=36) university students education performance was high.

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#### **Class Assessment**

**Table 5.3.** Percentage distribution of respondents according to their class assessment (N=240)

		Low	Medium	High	Total
Sr#	Statement	 F (%)	 F (%)	 F (%)	 F (%)
1	Class Participation	72(30%)	104(43.3%)	64(26.7%)	240(100%))
2	Class Attendance	20(8.3%)	56(23.3%)	164(68.3%)	240(100%)
3	Participation in curriculum activities	122(50.8%)	66(27.5%)	52(21.7%)	240(100%)
4	Problem Solving ability	92(38.3%)	72(30.0%)	76(31.7%)	240(100%)
5	Ability to managing time	122(50.8%)	61(25.4%)	57(23.8%)	240(100%)
6	Cognitive capacity	106(44.2%)	82(34.2%)	52(21.7%)	240(100%)
7	How much you feel laziness during class	66(27.5%)	67(27.9%)	107(44.6%)	240(100%)
8	Ability to sustain attention during class	55(22.9%)	98(40.8%)	87(36.2%)	240(100%)
9	My concentration level during study	75(31.2%)	67(27.9%)	98(40.8%)	240(100%)
10	Perception of teacher regarding your intelligence	62(25.8%)	107(44.6%)	71(29.6%)	240(100%)
11	Overall, how would you describe your current health status	58(24.2%)	97(40.4%)	85(35.4%)	240(100%)
12	Your ability to sole mathematical, and puzzle question	102(42.5%)	63(26.2%)	75(31.2%)	240(100%)
13	Level of anger	46(19.2%)	35(14.6%)	159(66.2%)	240(100%)

30.0% (n=72) university students low participate during class lecture, 43.3% (n=104) university students who participate average during class lecture, and 26.7% (n=64) university student class participation was high during class lecture. Only 8.3% (n=20) university class attendance was low, 23.3% (n=56) university student whose class attendance average, and a vast majority of students i.e. 68.3% (n=164) whose class attendance was high. A vast majority of university students i.e. 50.8% (n=122) low participate in curriculum activities, 27.5% (n=66) university student's participation in curriculum activities was average, and only 21.7% (n=52) university student participation in curriculum activities was high. Majority of university students i.e. 38.3% (n=92) problem solving ability was low, 30.0% (n=72) university students problem solving ability was high.

Majority of university student i.e. 50.8% (n=122) time management capacity was low, 25.4% (n=61) university time management capacity was average, and only 23.8% (n=57) university students time management capacity was high. Majority of university students i.e. 44.2% (n=106) had low cognitive capacity, 34.2% (n=82) university students cognitive capacity was average, and only 21.7% (n=52) students cognitive capacity was high. It is concluded that the student who less consume breakfast tend to be low cognitive capacity.

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27.5% (n=66) university students feel low laziness during class lecture, 27.9% (n=67) university student feel average laziness during class lecture, and majority of the university students i.e. 44.6% (n=107) feel high laziness during class lecture. 22.9% (n=55) university student ability to sustain attention during study or class lecture, a majority of university students i.e. 40.8% (n=98) feel average ability to sustain attention during class lecture, and 36.2% (n=87) university students ability to sustain attention during class lecture was high.

31.2% (n=75) university student concentration level during study was low, 27.9% (n=67) university students concentration level during study was average and 40.8% (n=98) university students concentration level during study was high. Perception of teacher regarding intelligence 25.8% (n=62) university students considered low intelligent according to teacher perception, 44.6% (n=107) university students considered average intelligent according to teacher perception, and 29.6% (n=71) university students considered high intelligent according to teacher perception. 24.2% (n=58) university student had low health status, 40.4% (n=97) university students had average health status, and 35.4% (n=85) university students had high health status. Majority of university students i.e. 42.5% (n=102) had low ability to solve mathematical and puzzle questions, 26.2% (n=63) university students ability to solve mathematical and puzzle questions was average, and 31.2% (n=75) university student had high ability to solve mathematical and puzzle questions. Only 19.2% (n=46) university student anger level was low, 14.6% (n=35) university students anger level was average, and a vast majority of university student i.e. 66.2% (n=159) anger level was high.

Table 5.4. Frequency and percentage distribution of the respondents according to their diet plan and exercise habits while N=240

Sr.#	Variables		F	(%age)
1	Diet plan		•	,
		Yes	43	(17.9%)
		No	197	(82.1%)
2	Exercise			
		Not at all	141	(58.8%)
		Sometimes	75	(31.2%)
		Regular	73	(30.4%)

Data clearly defined that only 17.9% respondent's was eat with plan while a vast majority of the respondent's i.e.82.1% was eat without any diet plan. Data also indicated that there was 58.8% respondent's who did not exercise while 31.2% respondent's take exercise sometimes and only 10% respondent's was take regular exercise.

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Table 5.5 Frequency and percentage distribution of the respondents regarding their monitoring food while N=240

Values	F	%
Don't care	95	(39.6%)
Average	108	(45.0%)
Strictly	37	(15.4%)

Data revealed that 39.6% (N=95) respondent's was don't care what they are eating, while 45% (N=108) respondent's was averagely monitor their food and only 15.4% (N=37) respondent's was strictly monitor their food. It is cleared from the data most of the university students don't care about their food intake and food timing.

Table 5.6:- Frequency and percentage distribution of the respondents regarding their breakfast habits while N=240

	Sr.#	Variables		F	(%age)	_
	1	Missed m	eal			
Data			Not at all	35	(14.6%)	showed
that			Sometimes	126	(52.5%)	only
14.6%			Often	79	(32.9%)	(N=35)
	2	Skip meal				
			Breakfast	114	(47.5%)	
			Lunch	51	(21.2%)	
			Dinner	16	(6.7%)	
			No one	59	(24.6%)	
	3	Drink Mill	<			
		1	Not at all	121	(50.4%)	
		9	Sometimes	66	(27.5%)	
		1	More than 3 days in a week	53	(22.1%)	
	4	<b>Drink Fres</b>	sh Juice			
		1	Not at all	139	(57.9%)	
		9	Sometimes	82	(34.2%)	
		1	More than 3 days in a week	19	(7.9%)	
	5	Tea or cof	fee			
		١	Yes .	66	(31.8%)	
		1	No	142	(69.2%)	_

respondents were not missed meal while 52.5% (N=126) respondents sometimes missed their meals and 32.9% (N=79) respondents were often missed their meals. Data also indicated that a vast majority of the respondents were i.e.47.5% (N=114) skip their breakfast often while 21.2% (N=51) respondents were missed lunch often. 6.7% (N=16) respondents were missed their dinner

Vol. 3, No. 1, 2013, E-ISSN: 2226-6348 © 2013 HRMARS

and only 24.6% (N=59) respondents no missed meal. Data cleared showed that most of the respondents were missed their meals often.

Data also revealed that 50.4% (N=121) respondent's was not drink milk not at all in breakfast, while 27.5% (N=66) respondent's was drink milk sometimes and 22.1% (N=53) respondent's was drink milk thrice or more than three days in week. Data also indicated that 57.9% (N=139) respondent's was not drink fresh juice at all, while 34.2% (N=82) respondent's was drink fresh juice sometimes and only 7.9% (N=19) respondent's was drink fresh juice thrice or more than three time in a week in breakfast. Data also showed that 69.2% (N=142) respondent's was not take tea or coffee in breakfast while only 31.8% respondent's was take tea or coffee in breakfast at daily bases. The proper breakfast is a "nutrition" that is wealthy carbohydrate as well as string, reasonable in protein and squat in obese, sugar and salt, like fresh fruits, milk, juice, egg, yogurt or cheese is a best breakfast (Rubin, 2003). A well breakfast considered fruits, whole grains, milk, meat or eggs or chicken, and whole grains, cereals, or breads (Student Wellness Office). Above table showed that most of the students skip their breakfast and those who takes breakfast also tend to be low consumption regarding nutritional status.

### **Testing of Hypothesis**

**Hypothesis no.1:** There is association between cognitive capacity and breakfast.

Cross tabulation between cognitive capacity and breakfast						
How will you rate your cognitive	Which mea	al you miss	sed often			
capacity	Breakfast		Dinner	No one	Total	
Low	61	23	6	16	106	
Average	39	14	7	20	80	
High	14	12	5	23	54	
Total	114	49	18	59	240	

Chi Square= 19.955 DF= 6 P-\

P-value= 0.003\*

Level of Significance = 0.05

The table confirmed that skipping breakfast influences the cognitive capacity and promote laziness among students. The findings of an investigation focused on the relation between breakfast and cognitive capacity of university students. It reveals that the students who skip often their breakfast cognitive capacity was low as compare to students who tacking breakfast. So our Alternative hypothesis is accepted and null hypothesis is rejected. This study revealed substantial agreement between breakfast habits and cognitive capacity. The slightly higher incidence of the cognitive capacity is influence due to skipping breakfast. P-value 0.003\* and Chi Square value 19.955 showed the relationship of breakfast with cognitive capacity that is highly significant and had great association. As previous studies showed that, there is indicative substantiation consumption a breakfast that has adequately impartial nutrients which are important for both health and as well as nutrient intake (Bhattacharya et al, 2006) Cognitive capacity or capacity to sustain attention and evoke memory (Wesnes et al, 2003). Pollitt et al, (1982/83) accomplished consequence of short term hunger on solving puzzles and mathematical problems in school

Vol. 3, No. 1, 2013, E-ISSN: 2226-6348 © 2013 HRMARS

children's. Together studies confirmed that breakfast skipping had unfavorable effects on solving mathematical problems and overall education performance.

**Hypothesis No. 2:** There is association between breakfast and ability to solve mathematical problems.

Cross tabulation between breakfast and ability to solve mathematical problems						
Your ability to solve Which meal you missed often						
mathematical, puzzle questions	Breakfast	Lunch	Dinner	No one	Total	
Low	61	27	6	9	103	
Average	34	10	7	15	66	
High	19	14	8	30	71	
Total	114	51	21	54	240	

Chi square= 34.827 df= 6 p-value= 0.000\*\* level of significance= 0.05 Present study showed that there is highly association between breakfast and problem solving capacity (solves mathematical problems, puzzle questions). The students who often skip their breakfast had low problem solving capacity. Chi square vale 34.827 and P-value 0.000\*\* that shows highly association between breakfast and problem solving capacity, So research showed that breakfast skipping directly influence the capacity of solving problem. So our hypothesis there is association between breakfast and ability to solve mathematical problems is accepted and the null hypothesis rejected. As study showing the students who skip their meals and facing hunger have lower scores in mathematics and had low problem solving capacity (Alaimo et al., 2001). The students who doesn't take healthy food, they may miss essential nutrients needed for best cognitive functioning. Unhealthy food also associated with poorer cognition, apathy, laziness and lower score in mathematics test (Story et al., 2006).

Vol. 3, No. 1, 2013, E-ISSN: 2226-6348 © 2013 HRMARS

#### Hypothesis No. 3: There is association between food intake and education performance

Over all education performance * Overall food intake (Meat, fish, juice, milk, and fruits Intake)						
•	Meat, fish, juice, milk, and fruits intake					
(Graduation, 1 <sup>st</sup> semester, 2 <sup>nd</sup> semester)	Low	Sometimes	Often	Total		
Low	57	27	30	114		
Medium	9	13	19	41		
High	12	5	68	85		
Total	78	45	117	240		

Chi Square = 62.49 df =4 P-Value= 0.000\*\* Level of Significance= 0.05

Present study showed that there is highly association between food intake (Meat, fish, juice, milk, and fruits) and education performance (CGPA) of the students'. Disregarding nutrition, especially during young adulthood, has adverse effects on one's health and competence. The students' who takes proper food had good health and grades while who often missed their meals and consume less nutrition education and health status was low that showed that there is highly association between academic performance and food intake. Chi square vale 62.49 and P-value 0.000\*\* that shows highly association between food intake and education performance, So research showed that proper food played vital role in education performance and malnutrition leads toward low education performance. So our hypothesis Disregarding nutrition, especially during young adulthood, has adverse effects on one's health and competence is accepted and null hypothesis there is no association between education performance and education performance is rejected. It is cleared from the previous studies many emotional, behavioral and academic problems among students are due to hunger (Kleinman et al., 1998). Another study concluded that good eating habits are integrated with good education performance (Wang et al., 2008). In the same way improper food is associated with poor education performance especially in math and core languages (Kristjansson et al., 2010). So unhealthy eating patterns and overall food intake is directly associated with low performance in education and also associated with mental and behavioral problems (Whitney et al., 199).

#### Conclusion

The finding of the study shows the link that there is highly relationship between food intake and education performance Most of the students often skip their breakfast, lunch or dinner. A majority of respondent's 47% often skip their breakfast. The reasons offered for skipping breakfast or some other meal had to do with personal choice and convenience, rather than with dieting and concern about body shape. And the students who take breakfast most of them consume less nutritious.

The study found there is higher relationship between food intake and academic performance the students who often skip their breakfast feel apathy and lazy during class and study and their problem solving capacity is very low, especially their problem solving capacity influence by skipping breakfast. Majority of the university students leaving in the hostels, due to some

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economic problems, and high prices of eating things they mostly tend to be bad food habits, majority of the respondents don't take fruit during the week, as well as they also less consume milk and fish that are the most important regarding nutritional status. All these things impacts badly their education performance and make them apathy during the class lecture and study, as discussed before there is highly association between breakfast and apathy most of students attend classes without breakfast in this why their concentration level is very much low due to feeling apathy, because they have to need energy perform their task due to consuming less energy their overall health status is decreasing that directly have impact their academic performance and their grades. The students who consume less milk, fruits, fish, fresh juice, lettuce and soup their grads are low and they do not focus on study properly they feel lazy and unrest during the study, and their memory status badly influence due to taking less value nutrition. Most of the students facing short term and long term hunger that influence their memory badly they often forgot the things regarding their study and other issues. The reason of facing short term hunger is due to very low level of time management in university students. 70-80% students had no schedule for study and they don't care about food timing and what they are eating.

### Suggestions

- To gave awareness the students regarding nutrition status.
- There should be launched campaign regarding food and its importance.
- There should be a subject in slybus that deals with food and nutrition because everybody should aware about food and its importance.
- Different seminars and workshop arranged by the institutions regarding food and nutrition.
- The department of food science can play vital role regarding nutrition by launching different training seasons and rising awareness campaign.
- The mess that is served in hostel especially in private hostel is very much poor regarding nutrition status, there should a system of checking by the government.
- It is also the responsibility of students they should aware what is good and what is bad regarding in eating they always consume good diet that are best regarding nutritional status.
- Educational programs should be planned that elucidate the importance of various components in a student's diet and also inform people about cheaper food alternatives that can provide them with vital nutrients. Controlling the growth of population and providing family planning guidance will lead to more food availability.
- Policies should be made by the government to provide food security to the masses.
- In universities mess menu should be arranged by experts, and set according to nutrition values.

Vol. 3, No. 1, 2013, E-ISSN: 2226-6348 © 2013 HRMARS

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