

A STUDY ON SURVEY FOR PATTERN OF AWAKENING AMONG YOUNG STUDENTS AND ITS IMPACT ON THEIR INTELLECTUAL FUNCTION (MEMORY & CONCENTRATION)

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ABSTRACT

Introduction- An improper life style affects our health in many ways. Having no fixed timings for awakening, sleeping, taking meals and exercise etc. are one of the most common undo habits of youngsters. In this study an effort has been made to assess the awakening pattern of the students and to find out any existing association between their pattern of awakening and their intellectual function like memory and concentration. **Method-** The survey was conducted in randomly selected sample of 598 students from same cultural and social background. These students were selected from class 11th and 12th. The students were asked some questions about their pattern of awakening and their own evaluation for their memory and concentration in study. **Result-** The study reveals that most of the students have accepted their level of memory or concentration as very good or good. Also there are many students who have no fixed hours for going into bed. This group of students has shown a lower prevalence of very good or good level of memory or concentration. **Discussion-** The study points out an existing association between awakening pattern and intellectual functions like memory and concentration. But it needs more researches to explain the scientific evidences behind this fact.

Keywords: Awakening pattern, Memory, Concentration, Survey, Young students

INTRODUCTION

Modern distorted life style is affecting our health at many levels. The life style of young students (According to UN/W.H.O.

young is the age group from 10 to 24 years)¹ is often disturbed. They have no fixed pattern for their routine works. Many times the

students don't care about these things. Competition and ambitions are increasing among students day by day. Therefore they are more focused on their carrier ambitions and competition neglecting their health and life style. But these neglected factors often play a major role in success and achievements of life. Our life style directly affects our health which in turn affects all the functions of our body like physiological, mental or intellectual and thus affects our working capacity. In this study the pattern of awakening among young students has been assessed and compared with their level of concentration and memory.

Memory is function by which information stored in the brain is later recalled to consciousness. Three brain structures are critical to the formation of memories; the medial temporal lobe, certain diencephalic nuclei, the basal forebrain. One hundred billion neurons in the brain are involved in forming memories, including a layer of 4.6 million cells in the hippocampus. Memory has been classified as Immediate or short term memory, recent memory, recent past memory and remote memory. The later three are also known as long term memory. Immediate or short term memory may be defined as the reproduction, recognition or recall of perceived material within a period of up to 30 seconds after presentation. Recent memory concerns events over the past few hours or days. Recent past memory concerns the retention of information over the past few months. Remote memory is the ability to remember events in the distant past. Memo-

ry is affected by various factors like stress, mood and other psychiatric disorders.² Concentration is an imprecise term, referring to capacity for focusing and sustaining mental activity on the task in hand.³ Concentration may be impaired due to various reasons like anxiety, depression, internal stimuli or any cognitive disorder. In psychiatry memory and concentration are tested on the basis of arithmetic form or by the help of images or events. In this study the level of concentration and memory of the students has been evaluated by their own perception not by any scale or other standard psychiatric parameter.

MATERIAL AND METHODS-

Present research work entitled "A study on survey for pattern of awakening among young students and its impact on their intellectual function (memory & concentration)" was conducted under following aims and objectives:

AIMS AND OBJECTIVES OF THE RESEARCH WORK:-

- To study the pattern of awakening among young students
- To assess their level of concentration
- To assess their level of memory
- To study the effect of pattern of awakening on the memory and concentration of brain

PLAN OF STUDY:-

The survey was conducted in randomly selected sample of 598 students from same cultural and social background from the area

of Palampur and Baijnath Tehsil nearby R.G.G.P.G. Ayurvedic College, Paprola H.P. These students were selected from class 11 and 12 from different government and private public schools whose details have been tabulated in the paper. Assessment of pattern of awakening and its impact on intellectual function of young students has been made on the basis of this survey. The ques-

tionnaire was presented in both languages i.e. Hindi and English.

**OBSERVATIONS AND RESULTS:-
PRESENTATION OF DATA:**

The data collected and compiled from this survey are sorted out & tabulated to obtain results which are presented below-

Table 1: School wise No. of students -

Sr. No.	School name	No. Of Students
1.	BhartiyaVidyapeeth, Baijnath	159
2.	Vishuddha Public School, Baijnath	123
3.	KendriyaVidyalaya, Army Campus, Alhilal	20
4.	Govt. Sr. Sec. School, Averi	177
5.	Govt. Sr. Sec. School, Banuri	119
	Total	598

This table shows the number of students in different schools participated in this survey study. The highest number of students parti-

cipated (177) were from Govt. Sr. Sec. School, Averi.

Table 2: Sex wise distribution –

Sr. no.	Sex	No. of volunteers	% age
1.	Male	325	54.34
2.	Female	273	45.65

In this study highest no. of participants were male i.e. 54.34

Table 3: Distribution according to day scholar and hosteller-

Sr. no.		No. of volunteers	% age
1.	Day Scholar	598	100
2.	Hosteller	00	0

All the participants were day scholars in this survey due to absence of boarding facility in their school.

Table 4: Pattern of Awakening

Timing Of Awakening in the morning	No. of students	% of Students
3:01a.m.-4:00a.m.	15	2.5
4:01a.m.-5:00a.m.	230	39

5:01a.m.-6:00a.m.	196	33.33
6:01a.m.-7:00a.m.	23	3.9
After 7:00a.m	04	0.67
Not fixed	121	20.5
Not Attempt	09	
Total	598	

This table of survey shows that maximum i.e. 230 (39%) students have habit of awakening between 4:00-5:00 a.m. Total 9 stu-

dents have not attempted this survey question. These were not included in calculation.

Table 5: Level of concentration in study

Level of concentration	No. of students	% of Students
Very good	72	12.2
Good	361	61.18
Average	144	24.4
Poor	13	2.2
Not Attempt	08	
Total	598	

In this table it has been shown that 361 i.e. 61.18% students have good level of concentration. 8 Students have not attempted the

questions and therefore not included in calculation.

Table 6: Level of memory in study

Level of memory	No. of students	%
Very good	78	13.17
Good	361	60.97
Average	142	23.98
Poor	11	1.85
Not Attempt	6	
Total	598	

In this table it has been shown that 361 i.e. 60.97% students have good level of memory in the study. 6 Students have not attempted

the question and therefore not included in calculation.

ANALYSIS OF DATA -

Table 7: Timing of awakening Vs Level of concentration-

Timing of awakening	No. of students with V.good/Good level of Concentration	% Students having V.good/Good level of Concentration	Result
3-5 am	188	76.73 (188/245)	No specific Relation
5-6 am	143	72.95 (143/196)	
After 6 am	20	74.07 (20/27)	
Not fixed	80	66.11 (80/121)	

The data of the table is not appearing to show any comparable relation between timing of awakening and level of concentration but we may notice here that the students who have no fixed pattern of awakening have least prevalence (66.11%) of V.

good/good level of concentration. Therefore if we summarize the above data in two groups with students having fixed pattern and unfixed pattern of awakening then the result would be significant and presented in the next table.

Table 8: Pattern of awakening Vs Level of Concentration-

Pattern of awakening	No. of students with V.good/Good level of Conc.	% Students having V.good/Good level of Conc	² value	P value	
Fixed pattern of awakening (3 am to 6 am)	351	75% (351/468)	3.86	P<0.05	Significant
No fixed pattern of awakening	80	66.11% (80/121)			

The table shows that the students who have a fixed awakening pattern have 8.89% (75-66.11) higher prevalence of v.good/good

level of concentration than those who don't have fixed pattern of awakening.

Table 9: Timing of awakening Vs Level of memory-

Timing of awakening	Level of memory	% Students having V.good/Good level of Memory	Result
3-5 am	195	79.59% (195/245)	No Specific Relation
5-6 am	144	73.46% (144/196)	
After 6 am	21	77.77% (21/27)	
Not fixed	76	62.80% (76/121)	

This table also doesn't appear to show any comparable relation between timing of awa-

kening and level of memory but here we again find that the students who have no

fixed time of awakening have least percentage prevalence of very good/good level of memory. Again on summarizing the data

into two groups with fixed and unfixed pattern of awakening we get a significant result which is presented in the next table.

Table 10: Pattern of awakening Vs Level of memory -

Pattern of awakening	Level of memory	% Students having V.good/Good level of Memory	² value	P value	
Fixed pattern of awakening(3-5 am/5-6am/after 6 am)	360	76.92% (360/468)	9.95	P<0.05	Significant
No fixed pattern of awakening	76	62.80% (76/121)			

On analyzing the above table we find that the students with fixed pattern of awakening in the morning have 14.12% (76.92-62.80) higher prevalence of v.good/good level of memory than those who have no fixed pattern of awakening.

DISCUSSION

a) **Pattern of awakening and level of concentration & memory (Table no. 4, 5 & 6)** - In this study it has been found that maximum no. of students i.e. 230 (39%) have habit of awakening between 4:00a.m. to 5:00 a.m. i.e. 39% whereas 121 (20.5%) students have no fixed pattern of awakening. Table no. 5 & 6 shows the level of concentration and memory of the students which has been graded by their own assessment. The data shows that most of the students have graded the level of their memory and concentration as v.good or good.

Students were also asked about the question of awakening pattern. On the basis of their sleeping and awakening pattern their dura-

tion of sleep hours has been calculated. It was found that maximum students (42%) were enjoying about 7 hours of sleep whereas average duration of sleep of the students was also found about 7 hours. An average of 7-7.5 hours of sleep is recommended for the adolescents (Age >12 years).⁴ Therefore it can be said that despite having enough hours of sleep students have an improper pattern of awakening and sleeping.

b) **Pattern of awakening vs. level of concentration (Table no. 7 & 8)** - The table no. 7 shows that 76.73% of those students who awake between 3 to 5 a.m. have accepted the level of their concentration v.good/good, which is highest among all the group of pattern of awakening in this study. The least percentage of students with v.good/good level of concentration has been reported from the group which has no fixed pattern of awakening.

In another method of grouping the students have been divided into two groups only,

with fixed and unfixed pattern of awakening in table no. 8. The students who awake between 3 to 6 a.m. have been considered to have a fixed time for awakening and therefore have been grouped altogether as students with fixed pattern of awakening. On analyzing table no. 8 we may conclude that the students with fixed pattern of awakening have 8.89% (75-66.11) higher percentage prevalence of v.good/good level of concentration in comparison to the students with unfixed pattern of awakening. The difference is significant at 5% level with chi square value of 3.86.

c) Pattern of awakening vs. level of memory (Table No. 9 & 10) - A very similar pattern of changes have been reported for memory too as we have seen for concentration. In table no. 9 we can see that maximum percentage of students with v.good/good level of memory are those who awake between 3 to 5 a.m.. Again if we rearrange these students into two groups only, with fixed and unfixed pattern of awakening, we would find that the students with fixed pattern of awakening have 14.12% (76.92-62.8) higher percentage prevalence of v.good/good level memory than those who have no fixed pattern for it. The difference is significant at 5% level with chi square value of 9.95.

CONCLUSION

The pattern of awakening has shown a significant impact on the level of concentration and memory of the students in this study. Though the timing of awakening has not shown any comparable relation with memory and concentration but it is very clear from this study the students with fixed pattern of awakening have significantly higher percentage prevalence of better memory and concentration than those students who have no fixed pattern for it. Still this study is only an indication about the above fact. This needs much more researches to explain this fact on scientific ground.

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Annexure (i)

The questionnaire used in conducting survey was in the form of a proforma which is as follows-

PROFORMA TO ASSESS THE LIFE STYLE AMONG YOUNG STUDENTS

Name of Volunteer -
Father's name -
Father's Occupation -
Age -
Gender -
Address with mobile no. -
Class -
School Name -
Day Scholar/Hosteller -
Questionnaire-

1. When do you get up early in the morning?
A. Time..... B. No fixed time
2. What is the level of your concentration in study?
A. Very good (V. good) B. Good C. Average D. Poor
3. What is the level of your memory in study?
A. Very good B. Good C. Average D. Poor

Source of Support: Nil

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