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# Journal of Psychiatric Nursing

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# Quality of Sleep among the Adolescents Using Smartphone at a Selected College

Aspin R.<sup>1</sup>, Sathiya Preethi S.<sup>2</sup>

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## Abstract

Sleep is a natural periodic state of rest for mind and body with closed eyes characterized by partial or complete loss of consciousness. The depth of the sleep is not constant throughout the sleeping period. The quality of adolescent sleep may have changed due to smartphones, at the same time the prevalence of neck pain and low back pain have been increased. So, the researcher was interested to carry out a "*A study to assess the quality of sleep among the adolescents using smartphone at a selected college*". Major objectives of the study were to assess the quality of sleep among adolescents. The research approach used in the study was quantitative approach. The investigator adopted a non-experimental descriptive research design. The study was conducted at SCPM College of Nursing and Paramedical Sciences, Gonda. The sample size of the study was 164 college students. Non probability convenient sampling technique was used to assess the quality of sleep among college students based on objectives. The tools used for data collection were demographic variables performance and Sleep quality scale (SQS) was used to assess the quality of sleep among adolescents. Data collection was done for a period of one week. It took nearly 30 minutes for the sample to complete data collection. The same procedure was followed for all samples. The data was analyzed using descriptive and inferential statistics. *Major findings of the study was* The Level of quality of sleep among adolescents using smart phone findings revealed that out of the 164 samples of adolescents, 4 (2.43%) have poor quality of sleep, 63 (38.41%) have mild quality of sleep, 88 (53.65%) had moderate quality of sleep, 10 (6.09%) had good quality of sleep. The findings of the study shows that the college students have some sleep problem with using smart phone.

**Keywords:** Quality of Sleep; Adolescents; Smartphone.

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## INTRODUCTION

Sleep is a natural periodic state of rest for mind and body with closed eyes characterized by partial or complete loss of conscious. Sleep is a basic necessity that constitutes almost one third of hours in a human life time. It is a reversible unconsciousness, were the body and mind are renewed, repaired and developed. Sleep is a corner





stone of adolescence development. Although the sleep duration varies 8 to 10 hours per night is sufficient for like sleep deficiency, Kidney diseases, High blood pressure, Diabetes mellitus and Stroke. There are many types of sleep disorders like insomnia; sleep related breathing disorders, adolescence.<sup>1</sup>

Lack of sleep has a influence on quality of life as it may result in consequences central disorders of hyper somnolence, circadian rhythm sleep wake disorders, parasomnics. Smart phone can change the sleeping time and shorten the sleeping period. Smart phones content can cause extreme excitement or cause recurring voyages. There is a relationship between smart phone usages and sleep quality. In sleep quality has been affected in delayed the sleeping time, sleeping difficulty because of over usage of smart phones. In Recently this problem is seen commonly in adolescence like college students who use mobile phones in night time and not able to go for sleep will reduce the sleeping quality of adolescence.<sup>2</sup>

Indian Journal of occupational and Environmental Medicine (2016) statistics showed that 70% of adults with sleep disturbances had health consequence such as high blood pressure, back pain and gastrointestinal disturbances. There are several factors that affect sleep. These factors can be both external and internal. Internal factor include change within the body such as alterations in brain functions when it goes through the stages of development of mental stress. External factors affecting sleep include food, sleep, environment and medications, education increase risk for sleep disturbances.<sup>3</sup>

### Need for the study

India's mobile phone industry is one of the fastest growing industries in the world. According to a senior analysis of consumer research at the younger group children's ageing 12 years told have their mobiles with various activities. Many parents are buying mobile phones for their children. Mobile phones can make parents and children's feel safer.<sup>4</sup>

Subscription to mobile phones has increased drastically during the past decade. In 2013, there are almost as many subscriptions to more than half of them (3.5 billion of the total 6.8 billion subscriptions). Mobile phone industries have been one of the fastest growing industries in recent times. At present, India has 287 million mobile phone users and nearly 1,15,000 towers which emit electromagnetic radiations. But the end of 2010, the number of mobile phone users is estimated to rise

to 500 million. The use of mobile phones among young children is also increasing drastically.<sup>5</sup>

*National Sleep Foundation (2017)* statistics showed that about 50-70 million adults have sleep disorders. 48% report snoring, 37.9% falling asleep during a day, 47% falling asleep while driving, 30% were have insomnia. In worldwide international journal of preventive medicine (2014), statistics showed that, the prevalence of over use of cell phone was 10.5% and the prevalence of sleep quality was 61.7% of students used more than 2 hours of daily. The total score of sleep quality showed a Significant direct correlation by cell phone addiction score. In India JK Nayak Computers and education 123, 164-173, (2018) statistics showed that, the number of smart phone users in adolescence in India was estimated to reach over 760 Millions in 2021, and the number of smart phone users in worldwide forecasted to exceeds 3.8 Billionusers in 2021. In Tamil Nadu Gideon J.I, *et al* (2018) nearly 43.36% of the rural citizen in Himachal Pradesh have smart phones with net Connection and in Tamil Nadu its around 41.98%.<sup>6</sup>

Smartphone, a device that was once considered has now become a necessity. Following its introduction in 1973, for the sole purposes of making and receiving calls, with the advancement in technology its usage, has evolved to a maximum including facilities like camera, internet and much more.<sup>7</sup>

Many adolescents have more than one Smartphone with them. During the investigation, the investigator found that many adolescents were addicted and having problems with wrong usage of smartphones. This leads to a decreased quality of life which makes adolescents get complicated in their health issues in future. It is extremely important for the nurse to assess the knowledge on the impact of Smartphone on physical health among adolescents. So, this has been a driving force for the investigator to conduct such a study to assess sleep quality among adolescents using Smartphone at a selected college.

### Statement

A study to assess the quality of sleep among the adolescents using Smartphone at a selected college in Gonda.

## **OBJECTIVES**

1. To assess the quality of sleep among the adolescents using Smartphone.



2. To associate the level of quality of sleep among the adolescents using Smartphone with their selected demographic variables.

### ***Null Hypothesis***

**NH<sub>1</sub>:** There is no statistically significant association between the quality of sleep among adolescents using Smartphone with their selected demographic variables.

### ***Assumptions***

- Adolescents need to have adequate information regarding hazards of smartphone usage.
- Adolescent need to be given education programme on hazards of smartphone usage.

### ***Delimitations***

- The study was delimited to a period of one week of data collection.
- Smart phone usage is limited in SCPM College of Nursing and Paramedical Sciences, Gonda.

### ***Criteria for Sample Selection***

#### **Inclusion Criteria**

- Students who are willing to participate in the study. Students who were present at the time of data collection.
- Students who use more than 2 hours per day

### ***Exclusion Criteria***

- Students who are not able to read and write in English.
- Students who were not present at the time of data collection.
- Students those who don't have smart phone.

## ***METHODOLOGY***

The research approach used in the study was quantitative approach. The investigator adopted a non-experimental descriptive research design. The study was conducted at SCPM College of Nursing and Paramedical Sciences, Gonda. The sample size of the study was 164 college students. Nonprobability convenient sampling technique was used to assess the quality of sleep among college students based on objectives. The tools used for data collection were demographic variables performance and Sleep quality scale (SQS) was used to assess the quality of sleep among adolescents.

Data collection was done for a period of one week. After obtaining formal permission, investigators approached each student who fulfilled inclusion criteria and a brief introduction about the study was given. Samples were made comfortable, and confidentiality of the response was assured. It took nearly 30 minutes for the sample to complete data collection. The same procedure was followed for all samples. The data was analyzed using descriptive and inferential statistics.

## ***RESULTS***

The table 1 shows the frequency and percentage distribution of the demographic variables among the adolescents using smart phones.

**Table 1:** Frequency and percentage distribution of the demographic variables among the adolescents using smartphone

| Demographic Variables     | Frequency<br>(No) | Percentage<br>(%) |
|---------------------------|-------------------|-------------------|
| <i>Level of education</i> |                   |                   |
| a) 1st year Bsc Nursing   | 34                | 20.73             |
| b) 2nd year Bsc Nursing   | 48                | 29.26             |
| c) 3rd year Bsc Nursing   | 47                | 28.65             |
| d) 4th year Bsc Nursing   | 35                | 21.34             |
| <i>Gender</i>             |                   |                   |
| a) Male                   | 0                 | 0                 |
| b) Female                 | 164               | 100               |
| c) Other                  | 0                 | 0                 |
| <i>Age of the student</i> |                   |                   |
| a) 17 - 18                | 31                | 18.90             |
| b) 19 - 20                | 93                | 56.70             |
| c) 21 - 22                | 38                | 23.17             |
| d) Above 22               | 2                 | 1.21              |
| <i>Religion</i>           |                   |                   |
| a) Hindu                  | 25                | 15.24             |
| b) Christian              | 138               | 84.14             |
| c) Muslim                 | 1                 | 0.60              |
| d) Others                 | 0                 | 0                 |
| <i>Family History</i>     |                   |                   |
| a) Joint Family           | 37                | 22.56             |
| b) Nuclear Family         | 123               | 75                |
| c) Extended Family        | 1                 | 0.61              |
| d) Single parent Family   | 3                 | 1.83              |

*table cont...*

**Income level per year**

|                    |    |       |
|--------------------|----|-------|
| a) 20000 - 50000   | 76 | 46.30 |
| b) 50001 -100000   | 44 | 26.82 |
| c) 100001 - 150000 | 25 | 15.24 |
| d) Above 150000    | 19 | 11.58 |

**Sleep hours**

|                       |    |       |
|-----------------------|----|-------|
| a) More than 10 hours | 4  | 2.43  |
| b) 9 hours            | 20 | 12.19 |
| c) 8 hours            | 87 | 53.04 |
| d) Less than 7 hours  | 53 | 32.31 |

**Woke up time**

|                     |    |       |
|---------------------|----|-------|
| a) Before 5 am      | 74 | 45.12 |
| b) Between 5 - 6 am | 44 | 26.82 |
| c) Between 6 - 7 am | 22 | 13.41 |
| d) After 7 am       | 24 | 14.63 |

**Duration of smartphone usage**

|                      |    |       |
|----------------------|----|-------|
| a) 1 - 2 years       | 4  | 2.43  |
| b) 3 - 4 years       | 24 | 14.63 |
| c) 5 - 6 years       | 74 | 45.12 |
| d) More than 6 years | 62 | 37.80 |

**Average time does the phone spend a day**

|                      |    |       |
|----------------------|----|-------|
| a) 3 hours           | 28 | 17.07 |
| b) 4 hours           | 28 | 17.07 |
| c) 5 hours           | 35 | 21.34 |
| d) More than 5 hours | 73 | 44.51 |

**Have any use of smartphone at bedtime**

|              |    |       |
|--------------|----|-------|
| a) Yes       | 39 | 23.78 |
| b) No        | 62 | 37.80 |
| c) Sometimes | 63 | 38.41 |

**Do you sleep with your mobile**

|              |     |       |
|--------------|-----|-------|
| a) Yes       | 27  | 6.46  |
| b) No        | 107 | 65.24 |
| c) Sometimes | 30  | 18.29 |

**Do you have any pain in wrist or back of neck from phone use while bedtime**

|              |     |       |
|--------------|-----|-------|
| a) Yes       | 17  | 10.36 |
| b) No        | 125 | 76.22 |
| c) Sometimes | 22  | 41    |

With respect to level of education, 34 (20.73%) were in the 1st yr. BSc Nursing, 48 (29.26%) were in 2nd yr BSc Nursing, 47 (28.65%) were in 3rd yr BSc Nursing and 35 (21.34%) were in 4th yr BSc Nursing. With respect to gender, 164 (100%) were females. With respect to age 31 (18.90%) were in

17-18 years, 93 (56.70%) were in 19-20 years, 38 (23.17%) were in 21-22 years and 2(1.21%) were in above 22 years.

With respect with religion 25 (15.24%) are Hindu, 138 (84.14%) are Christian, 1 (0.60%) are Muslim. With regards to family history 37 (22.56%) were in joint family, 123 (75%) were in nuclear family, 1(0.61) were in extend family and 3 (1.83%) were in single parent family. With respect to income level per year 76 (46.3%) were in 20000-50000, 44 (26.82%) were in 50001-100000, 25 (15.24%) were in 100001-150000, 19 (11.58%) were in above 150000.

With respect to sleep hours 4 (2.43%) were in more than 10 hours, 20 (12.19%) were in 9 hours, 87 (53.04%) were in 8 hours and 53 (32.31%) were in less than 7 hours. With respect to woke up time 74 (45.12%) were in before 5 am, 44 (26.82%) were in Between 5 - 6 am 22(13.41%) were in Between 6 - 7 am and 24 (14.63%) were in After 7 am. With respect to duration of smartphone usage 4 (2.43%) were in 1 - 2 years, 24 (14.63%) were in 3 - 4 years (45.12%) were in 5 - 6 years and 62 (37.80%) were in More than 6 years. With respect to average time does the phone spend a day 28 (17.07%) were in 3 hours, 28 (17.07%) were in 4 hours, 35 (21.34%) were in 5 hours and 73 (44.51%) were in More than 5 hours.

With respect to having any use of smart phone at bedtime 39 (23.78%) were using smart phone at bedtime, 62 (37.80%) were not using smart phone at bed-time and 63 (38.41%) were sometimes using smart phone at bedtime. With respect to do you sleep with your mobile, 27 (16.46%) sleep with mobile, 107 (65.24%) were not sleep with mobile and 30 (18.29%) were using mobile in sometimes. With respect to pain in wrist or back of neck from phone use while bedtime 17 (10.36%) were having pain in the wrist or back of neck from phone use while bed time, 125 (76.22%) were not having pain in the wrist or back of neck from phone use while bed time and 22 (13.41%) were having sometimes pain in the wrist or back of neck from phone use while bedtime.

**Table 2:** Frequency and percentage distribution of quality of sleep among adolescents using smartphone.

| Level of Quality of Sleep           | Frequency (n) | Percentage (%) |
|-------------------------------------|---------------|----------------|
| Poor quality of sleep (57 - 75)     | 4             | 2.43           |
| Mild quality of sleep (38 - 56)     | 63            | 38.41          |
| Moderate quality of sleep (20 - 37) | 88            | 53.65          |
| Good quality of sleep (0 - 19)      | 10            | 6.09           |

Table 2 reveals the frequency and percentage distribution of the quality of sleep among 164 adolescents, revealed that 4 (2.43%) students have poor quality of sleep, 63 (38.41%) have mild quality of sleep, 88 (53.65%) had moderate quality of sleep, 10 (6.09%) had good quality of sleep.

**Table 3:** Assessment of mean and standard deviation of quality of sleep among the adolescents using smartphone. N = 164

| Variable         | Mean  | Standard Deviation |
|------------------|-------|--------------------|
| Quality of Sleep | 35.81 | 10.74              |

Table 2 States the mean and standard deviation of the quality of sleep among the adolescents using smart phone. The study revealed that the quality of sleep meanvalue was 35.81 with the standard

deviation of 10.74.

The findings of the table revealed that there was a statistical significant was found between the quality of sleep and demographic variable such as level of education at ( $\chi^2 = 15.65$ ,  $p < 0.001$ ) Age of the student ( $\chi^2 = 107.41$   $p < 0.001$ ), Religion at ( $\chi^2 = 14.63$ ,  $p < 0.001$ ), Family History at ( $\chi^2 = 4.29$ ,  $p < 0.001$ ), Income level per year at ( $\chi^2 = 18.86$ ,  $p < 0.001$ ), Sleep hours at ( $\chi^2 = 4.43$ ,  $p < 0.001$ ), Woke up time at ( $\chi^2 = 20.9$ ,  $p < 0.001$ ), Duration of smartphone usage at ( $\chi^2 = 3.71$ ,  $p < 0.001$ ), Average time does the phone spend a day at ( $\chi^2 = 3.71$ ,  $p < 0.001$ ), use of smart phone at bedtime at ( $\chi^2 = 1.74$   $p < 0.001$ ), pain in wrist or back of neck from phone use while bedtime at ( $\chi^2 = 9.04$ ,  $p < 0.001$ ), whereas no significant association was found with the remaining variables at  $p < 0.05$  level.

**Table 4:** Association of quality of sleep among adolescents with their selected demographic variables

| Demographic Variables   | Poor quality of sleep |      | Mild quality of sleep |       | Moderate quality of sleep |       | Good quality of sleep |      | Chi-Square Value                                |
|-------------------------|-----------------------|------|-----------------------|-------|---------------------------|-------|-----------------------|------|---|
|                         | F                     | P    | F                     | P     | F                         | P     | F                     | P    |   |
|                         | (n)                   | %    | No                    | %     | No                        | %     | No                    | %    |   |
| Level of education      |                       |      |                       |       |                           |       |                       |      |   |
| a) 1st year Bsc Nursing | 0                     | 0    | 15                    | 9.14  | 15                        | 9.14  | 4                     | 2.43 | $\chi^2 = 15.65$<br>d.f = 9<br>p<0.001<br>(S)*  |
| b) 2nd year Bsc Nursing | 0                     | 0    | 24                    | 14.6  | 23                        | 14.02 | 2                     | 1.21 |   |
| c) 3rd year Bsc Nursing | 0                     | 0    | 16                    | 9.75  | 28                        | 17.07 | 2                     | 1.21 |   |
| d) 4th year Bsc Nursing | 3                     | 1.82 | 13                    | 7.92  | 18                        | 10.97 | 1                     | 0.6  |   |
| Age of the student      |                       |      |                       |       |                           |       |                       |      |   |
| a) 17 - 18              | 0                     | 0    | 8                     | 4.87  | 20                        | 12.19 | 2                     | 1.21 | $\chi^2 = 107.41$<br>d.f = 9<br>p<0.001<br>(S)* |
| b) 19 - 20              | 1                     | 0.6  | 38                    | 23.1  | 48                        | 29.26 | 6                     | 3.65 |   |
| c) 21 - 22              | 1                     | 0.6  | 20                    | 12.9  | 17                        | 10.36 | 1                     | 0.6  |   |
| d) Above 22             | 0                     | 0    | 1                     | 0.6   | 1                         | 0.6   | 0                     | 0    |   |
| Religion                |                       |      |                       |       |                           |       |                       |      |   |
| a) Hindu                | 1                     | 0.6  | 12                    | 7.31  | 13                        | 7.92  | 1                     | 0.6  | $\chi^2 = 14.63$<br>d.f=9<br>p<0.001<br>(S)*    |
| b) Christian            | 2                     | 1.21 | 61                    | 37.1  | 68                        | 38.1  | 5                     | 3.04 |   |
| c) Muslim               | 0                     | 0    | 1                     | 0.6   | 0                         | 0     | 0                     | 0    |   |
| d) Others               | 0                     | 0    | 0                     | 0     | 0                         | 0     | 0                     | 0    |   |
| Family History          |                       |      |                       |       |                           |       |                       |      |   |
| a) Joint Family         | 0                     | 0    | 22                    | 13.41 | 14                        | 8.53  | 1                     | 0.6  | $\chi^2 = 4.29$<br>d.f=9<br>p<0.001             |
| b) Nuclear Family       | 3                     | 1.82 | 47                    | 28.65 | 65                        | 39.63 | 8                     | 4.87 |   |
| c) Extended Family      | 0                     | 0    | 0                     | 0     | 1                         | 0.6   | 0                     | 0    |   |
| d) Single parent Family | 2                     | 1.21 | 1                     | 0.6   | 0                         | 0     | 0                     | 0    |   |
| Income level per year   |                       |      |                       |       |                           |       |                       |      |   |
| a) 20000 – 50000        | 1                     | 0.6  | 33                    | 20.12 | 40                        | 24.39 | 4                     | 2.43 | $\chi^2 = 18.86$<br>d.f=9<br>p<0.001<br>(S)*    |
| b) 50001 - 100000       | 1                     | 0.6  | 18                    | 10.97 | 22                        | 13.41 | 4                     | 2.43 |   |
| c) 100001 - 150000      | 0                     | 0    | 12                    | 7.31  | 12                        | 7.31  | 1                     | 0.6  |   |
| d) Above 150000         | 0                     | 0    | 7                     | 4.26  | 9                         | 5.48  | 0                     | 0    |   |

table cont...

**Sleep hours**

|                       |   |      |    |       |    |       |   |      |                                     |
|-----------------------|---|------|----|-------|----|-------|---|------|-------------------------------------|
| a) More than 10 hours | 0 | 0    | 1  | 0.6   | 3  | 1.82  | 0 | 0    | $\chi^2 = 4.43$<br>d.f=6<br>p<0.001 |
| b) 9 hours            | 1 | 0.6  | 8  | 4.87  | 13 | 6.7   | 2 | 1.21 |                                     |
| c) 8 hours            | 1 | 0.6  | 35 | 21.3  | 45 | 27.43 | 6 | 3.65 |                                     |
| d) Less than 7 hours  | 2 | 1.21 | 25 | 15.24 | 22 | 13.41 | 2 | 1.21 |                                     |

**Woke up time**

|                     |   |      |    |       |    |       |   |      |   |
|---------------------|---|------|----|-------|----|-------|---|------|---|
| a) Before 5 am      | 0 | 0    | 0  | 0     | 3  | 1.82  | 1 | 0.6  | $\chi^2 = 20.9$<br>d.f=6<br>p<0.001<br>(S)* |
| b) Between 5 - 6 am | 0 | 0    | 13 | 7.92  | 12 | 7.31  | 1 | 0.6  |   |
| c) Between 6 - 7 am | 1 | 0.6  | 30 | 18.29 | 35 | 21.34 | 5 | 3.04 |   |
| d) After 7 am       | 2 | 1.21 | 26 | 15.85 | 33 | 20.12 | 2 | 1.21 |   |

**Duration of smartphone usage**

|                      |   |     |    |       |    |       |   |      |                                     |
|----------------------|---|-----|----|-------|----|-------|---|------|-------------------------------------|
| a) 1 - 2 years       | 1 | 0.6 | 34 | 20.73 | 32 | 19.52 | 5 | 3.04 | $\chi^2 = 3.71$<br>d.f=9<br>p<0.001 |
| b) 3 - 4 years       | 1 | 0.6 | 16 | 9.75  | 23 | 14.02 | 2 | 1.21 |                                     |
| c) 5 - 6 years       | 1 | 0.6 | 8  | 4.87  | 14 | 8.53  | 1 | 0.6  |                                     |
| d) More than 6 years | 0 | 0   | 9  | 5.48  | 15 | 9.14  | 2 | 1.21 |                                     |

**Average time does the phone spend a day**

|                      |   |      |    |       |    |       |   |      |                                     |
|----------------------|---|------|----|-------|----|-------|---|------|-------------------------------------|
| a) 3 hours           | 1 | 0.61 | 14 | 8.53  | 14 | 8.53  | 0 | 0    | $\chi^2 = 3.71$<br>d.f=9<br>p<0.001 |
| b) 4 hours           | 0 | 0    | 10 | 6.09  | 15 | 9.14  | 3 | 1.82 |                                     |
| c) 5 hours           | 1 | 0.6  | 14 | 8.53  | 16 | 9.75  | 4 | 2.43 |                                     |
| d) More than 5 hours | 1 | 0.6  | 26 | 15.85 | 40 | 24.39 | 3 | 1.82 |                                     |

**Use of smartphone at bedtime**

|              |   |      |    |       |    |       |   |      |                            |
|--------------|---|------|----|-------|----|-------|---|------|----------------------------|
| a) Yes       | 0 | 0    | 17 | 10.36 | 21 | 12.8  | 1 | 0.6  | $\chi^2 = 1.74$<br>p<0.001 |
| b) No        | 2 | 1.21 | 22 | 13.41 | 34 | 20.73 | 4 | 2.43 |                            |
| c) Sometimes | 2 | 1.21 | 26 | 15.85 | 31 | 18.9  | 4 | 2.43 |                            |

**Sleeping with smartphone**

|              |   |     |    |       |    |       |   |      |   |
|--------------|---|-----|----|-------|----|-------|---|------|---|
| a) Yes       | 1 | 0.6 | 10 | 6.09  | 14 | 8.53  | 2 | 1.21 | $\chi^2 = 11.26$<br>d.f=6<br>p<0.001 (S)* |
| b) No        | 1 | 0.6 | 46 | 28.01 | 53 | 32.3  | 6 | 3.65 |   |
| c) Sometimes | 1 | 0.6 | 11 | 6.7   | 17 | 10.36 | 2 | 1.21 |   |

**Do you have any pain in wrist or back of neck from phone use while bedtime**

|              |   |      |    |       |    |      |   |      |                                     |
|--------------|---|------|----|-------|----|------|---|------|-------------------------------------|
| a) Yes       | 2 | 1.21 | 5  | 3.04  | 7  | 4.26 | 1 | 0.6  | $\chi^2 = 9.04$<br>d.f=6<br>p<0.001 |
| b) No        | 2 | 1.21 | 55 | 33.53 | 61 | 37.1 | 8 | 4.87 |                                     |
| c) Sometimes | 0 | 0    | 9  | 5.48  | 14 | 8.53 | 0 | 0    |                                     |

## DISCUSSION

The first objective findings revealed that the frequency and percentage distribution of sleep quality of sleep among 164 adolescents, 4 (2.43%) have poor quality of sleep, 63 (38.41%) have mild quality of sleep, 88 (53.65%) had moderate quality of sleep, 10 (6.09%) had good quality of sleep. The mean quality of sleep among adolescents using smartphone was 35.81 with standard deviation of 10.74.

The second objective of the findings revealed that there was a statistically significant association was found between quality of sleep and demographic

variable. Hence hypothesis stated that "there is no significant association of the quality of sleep among the adolescents using smartphone with their selected demographic variables" was not accepted with the demographic variables.

The findings of the study was supported by the following study regarding relationship between demographic and quality of sleep. The study was conducted among 200 students of a college. Questionnaire method was used for the study. The research design was descriptive looking at the sleep quality among adolescents. The research findings showed that there were no significant differences between sleep quality and demographic variables.<sup>8</sup>

## CONCLUSION & SUMMARY

Increasing mobile phone usage and lack of adequate knowledge about the quality of sleep among adolescents using smartphone could be important reasons to have contributed to rise in physiological and psychological health symptoms among adolescents. Lack of sleep has an influence on the quality of life as it may result to consequences, and it can be minimized or eliminated by spreading awareness on the subject matters especially on restricted usage and getting habituated to devices. The enhancement of knowledge regarding the quality of sleep among adolescents using smart phone is essential in preventing complications.

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# A Study to assess the Mobile Phone Dependence Level among Students of Selected ITI College of Sukma

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## Abstract

The study aimed to assess the mobile phone dependence level among students of selected ITI colleges of Sukma. The conceptual frame work was adopted for the study based on ROY's adaptation model. Instruments used for the data collection were sociodemographic Performa, Dependence on mobile phone scale among selected students of selected ITI college of Sukma. Fifty students were selected by simple random sampling technique. Descriptive statistic (frequency, percentage), and inferential statistics (chi square, and correlation) were used to analyses the data and to test hypothesis.

All the items in the questionnaire were standardized. The reliability was assessed by using Karl Pearson's Correlation coefficient. The obtained reliability was 0.93 which indicates that the tool which is taken by the researcher is reliable, valid, and predictable of the desired objective. The data were analyzed by using descriptive and inferential statistics. The results of the study are suggestive of mobile phone dependence among students of selected ITI college of Sukma. Among 50 samples in those 8 members [16%] are not having any mobile dependency whereas 14 members [28%] are having mild dependence level on mobile phone, 10 members [20%] are having moderate level of mobile dependence at last 18 members [36%] are having severe dependence level on mobile. The data is indicative that Mobilephone dependence is an important health problem in the students. The sleepquality deteriorates with increasing dependence level. New studies are required to assess the real problem and there by take appropriate stepstotackle the growing problem. It was concluded that referring the students with suspected dependence to advanced healthcare facilities, performing occasional scans for early diagnosis and informing the students about controlled mobile phone use are required for the purposes of definitive diagnosis and treatment.

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## INTRODUCTION

The mobile phone contains so many qualities and characteristics that make it very



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attractive to both young and old<sup>1</sup>, Whether sitting in a garden, or having food at the movie theatres, it seems that cell phones find a way to interrupt the ambiance. In developing country cell phones are becoming more valuable than money as they are being paid in minutes instead of money.<sup>2</sup> With the advancement of modern technology and in particular mobile technology it is no wonder that cell phones and their popularity are on the rise. It is perhaps because of their ease of use and their ability to facilitate other applications.<sup>3</sup>

Smart phone contains all advance applications like messenger, mobile games, online purchasing applications, mobile banking, internet access etc, with made our life easy and comfortable as well. But including all the advance applications it brings too many hazards like nausea, headache, insomnia, tumors and other physical and psychological health problems.<sup>4</sup>

The prevalence rate of mobile phone dependence in adolescent age between 11-14 years from Britain is estimated as 10% where adolescent consider them expert users of this technology.<sup>5</sup> Complimentary to this in India it is estimated of among as 39-44%.<sup>6</sup>

Some researches reveal an association between mobile phone use and certain kinds of neuro and salivary gland tumours. **Lennart Hardell et al.** (2009) done a meta-analysis of 11 researches which were taken from peer-reviewed journals and they concluded that mobile phone usage continuously for at least 10 years "almost doubles the chances of brain tumor."<sup>7</sup>

Based on the data of the online **statistic** portal Statista, as compared to year 2013, in India the estimated users of mobile phone has rise by 11% in the year 2015<sup>15</sup> and According to a report of **Times of India**, India will exceed 200 million smartphone users by the year 2016.<sup>16</sup> Now a days it is well understood that in India, the use of mobile Phone is very prevalent in population who are young and educated.

World Health Organization reported on 31 May 2011, that mobile phone use accompany with health risk which is long term and harmful too, whereas the radiation from mobile phone is strong etiological factor for occurrence of carcinoma in humans. Gazellere ported in his survey that, there were more than 25% of participant who reported that they 'almost always' use their mobile phones

in almost every social gathering and activity like eating time, or in meeting. Contributing to this point 58% of participant reported that they use it 'usually' or 'occasionally' in these activities."<sup>19</sup>

### *In addition*

- 70% of participant recheck their mobile phones within just one hour of getting up in morning.
- Before going to sleep 56% uses their phones.
- Over the weekend 48% check their phones.
- During vacation 51% constantly check their phones.
- 44% said that if they don't interact with their mobile phone within in a week, they would have complaints of anxiety and irritation.<sup>20</sup>

## **MATERIALS AND METHODS**

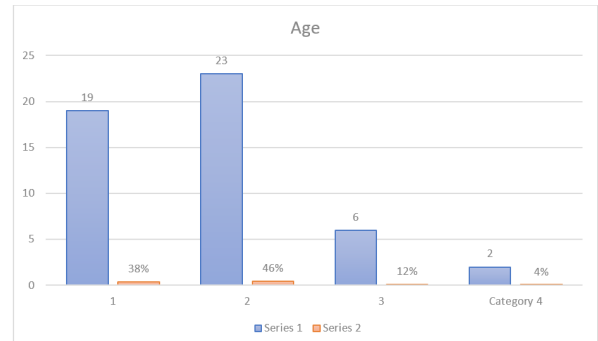
The objectives of the study were to assess the mobile phone dependence level as measured by dependence on mobile phones among students and to find the association between mobile phone dependence level with their selected demographic variables. The conceptual framework was adopted for the study based on ROY's adaptation model. Instrument used for the data collection were socio demographic Profile, Dependence on mobile phone scale among selected students of selected college of Sukma. Fifty students were selected by simple random sampling technique. Descriptive statistic (frequency, percentage) and inferential statistics (chi square, and correlation) were used to analyse the data and to test hypotheses.

All the items in the questionnaire were standardized and Ten experts constituting of three psychiatrists, two psychologists, and six mental health nursing personnel validated the Tool. The reliability was assessed by using Karl Pearson's Correlation coefficient. The obtained reliability was 0.93 which indicates that the tool which is taken by the researcher is reliable, valid, and predictable of the desired objective. The data were analyzed by using descriptive and inferential statistics. The reliability was assessed by using Karl Pearson's Correlation coefficient. The obtained reliability was 0.93 which indicates that the tool which is taken by the researcher is reliable, valid, and predictable of the desired objective. The data were analyzed by using descriptive and inferential statistics.

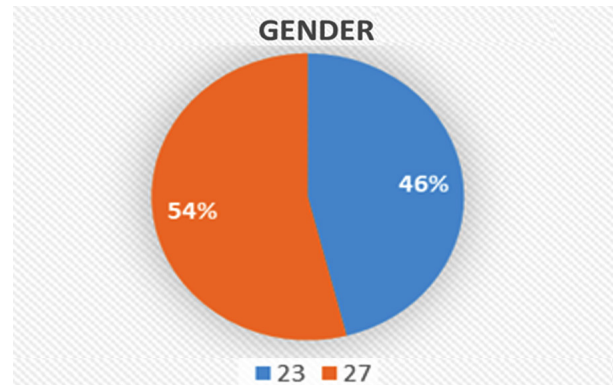
## RESULTS

**Table 1:** Frequency and percentage distribution of demographic variables among students. *N=50*

| Demographic Variables        | Frequency | Percentage |
|------------------------------|-----------|------------|
| <b>Age in years</b>          |           |            |
| 18-19                        | 19        | 38%        |
| 20-21                        | 23        | 46%        |
| 22-23                        | 6         | 12%        |
| 24-25                        | 2         | 4%         |
| <b>Gender</b>                |           |            |
| Male                         | 23        | 46%        |
| Female                       | 27        | 54%        |
| <b>No of sibling</b>         |           |            |
| No                           | 7         | 14%        |
| 1 sibling                    | 13        | 26%        |
| 2 sibling                    | 19        | 38%        |
| 3 or more                    | 11        | 22%        |
| <b>Family</b>                |           |            |
| Joint                        | 33        | 66%        |
| Nuclear                      | 17        | 34%        |
| <b>Occupation of mother</b>  |           |            |
| House wife                   | 41        | 82%        |
| Employee                     | 9         | 18%        |
| Daily wages                  | 0         | 0%         |
| <b>Occupation of father</b>  |           |            |
| Not working                  | 2         | 4%         |
| Employee                     | 23        | 46%        |
| Business man                 | 22        | 44%        |
| Daily wages                  | 3         | 6%         |
| <b>Family income / month</b> |           |            |
| Below 10000                  | 4         | 8%         |
| 10001-15001                  | 4         | 8%         |
| 15001-20000                  | 8         | 16%        |
| Above 20000                  | 34        | 68%        |
| <b>Domicile</b>              |           |            |
| Rural                        | 37        | 74%        |
| Urban                        | 13        | 26%        |
| <b>Health problem</b>        |           |            |
| Yes                          | 1         | 2%         |
| No                           | 49        | 98%        |
| <b>Emotional problem</b>     |           |            |
| Yes                          | 1         | 2%         |
| No                           | 49        | 98%        |
| <b>Family problem</b>        |           |            |
| Yes                          | 1         | 2%         |
| No                           | 49        | 98%        |



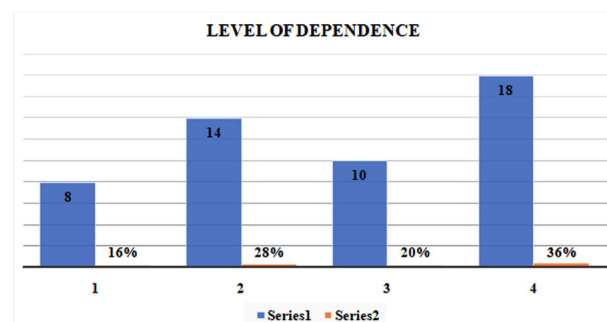
**Fig. 1:** Frequency and Percentage distribution of Students on age.



**Fig. 2:** Frequency and Percentage distribution of Students on gender.

**Table 2:** Frequency and percentage distribution of level of Mobile dependence among students.

| Level of Knowledge  | Range   | Frequency | Percentage |
|---------------------|---------|-----------|------------|
| No Dependence       | 90      | 08        | 16%        |
| Mild Dependence     | 91-110  | 14        | 28%        |
| Moderate Dependence | 111-130 | 10        | 20%        |
| Severe Dependence   | 131-150 | 18        | 36%        |



**Fig. 3:** Frequency and percentage distribution of level of mobile dependence among students

**Table 3:** Distribution of mean and standard deviation of level of Mobile dependence among students. *N = 50*

| Content            | Level of Mobile Dependence |
|--------------------|----------------------------|
| Mean               | 24.16                      |
| Standard deviation | 5.641                      |

**Table 4:** Association of demographic variables with the level of Mobile dependence among students*N = 50*

| Variable                    | Mobilephone Dependence |      |          |        | x <sup>2</sup> | Df | P Value | Inference |
|-----------------------------|------------------------|------|----------|--------|----------------|----|---------|-----------|
|                             | No                     | Mild | Moderate | Severe |                |    |         |           |
|                             | F                      | F    | F        | F      |                |    |         |           |
| <i>Age in years</i>         |                        |      |          |        |                |    |         |           |
| 18-19                       | 7                      | 9    | 12       | 11     | 14.61          | 9  | 16.91   | NS        |
| 20-21                       | 7                      | 11   | 21       | 7      |                |    |         |           |
| 22-23                       | 2                      | 7    | 2        | 1      |                |    |         |           |
| 24-25                       | 0                      | 1    | 0        | 2      |                |    |         |           |
| <i>Gender</i>               |                        |      |          |        |                |    |         |           |
| Male                        | 6                      | 13   | 15       | 12     | 2.21           | 3  | 7.81    | NS        |
| Female                      | 10                     | 15   | 20       | 8      |                |    |         |           |
| <i>No of Sibling</i>        |                        |      |          |        |                |    |         |           |
| No sibling                  | 4                      | 2    | 4        | 4      | 7.2            | 9  | 16.91   | NS        |
| 1 sibling                   | 2                      | 11   | 9        | 5      |                |    |         |           |
| 2 sibling                   | 5                      | 10   | 15       | 8      |                |    |         |           |
| 3 or more                   | 5                      | 5    | 7        | 4      |                |    |         |           |
| <i>Family</i>               |                        |      |          |        |                |    |         |           |
| Joint                       | 8                      | 17   | 25       | 15     | 2.76           | 3  | 7.81    | NS        |
| Nuclear                     | 8                      | 11   | 10       | 6      |                |    |         |           |
| <i>Occupation of mother</i> |                        |      |          |        |                |    |         |           |
| House wife                  | 15                     | 27   | 32       | 17     | 3.89           | 6  | 12.59   | NS        |
| Employee                    | 1                      | 1    | 4        | 2      |                |    |         |           |
| Daily wages                 | 0                      | 1    | 0        | 0      |                |    |         |           |
| <i>Occupation of father</i> |                        |      |          |        |                |    |         |           |
| Not working                 | 0                      | 3    | 1        | 0      | 24.87          | 9  | 16.91   | S         |
| Employee                    | 6                      | 11   | 19       | 11     |                |    |         |           |
| Business man                | 10                     | 13   | 12       | 9      |                |    |         |           |
| Daily wages                 | 0                      | 1    | 3        | 1      |                |    |         |           |
| <i>Family Income /Month</i> |                        |      |          |        |                |    |         |           |
| Below 10000                 | 1                      | 2    | 3        | 2      | 10.04          | 9  | 16.91   | NS        |
| 10001-15001                 | 1                      | 1    | 5        | 1      |                |    |         |           |
| 15001-20000                 | 6                      | 5    | 4        | 1      |                |    |         |           |
| Above 20000                 | 13                     | 17   | 20       | 18     |                |    |         |           |
| <i>Domicile</i>             |                        |      |          |        |                |    |         |           |
| Rural                       | 7                      | 7    | 16       | 7      | 2.22           | 3  | 7.81    | NS        |
| Urban                       | 9                      | 21   | 19       | 14     |                |    |         |           |
| <i>Health problem</i>       |                        |      |          |        |                |    |         |           |
| No                          | 16                     | 28   | 32       | 21     | 5.73           | 3  | 7.81    | NS        |
| Yes                         | 0                      | 0    | 3        | 0      |                |    |         |           |
| <i>Emotional Problem</i>    |                        |      |          |        |                |    |         |           |
| No                          | 16                     | 28   | 32       | 21     | 5.73           | 3  | 7.81    | NS        |
| Yes                         | 0                      | 0    | 3        | 0      |                |    |         |           |
| <i>Family Problem</i>       |                        |      |          |        |                |    |         |           |
| No                          | 15                     | 28   | 35       | 21     | 8.06           | 3  | 7.81    | S         |
| Yes                         | 1                      | 0    | 0        | 0      |                |    |         |           |

## DISCUSSION

The level of mobile phone dependence was measured by Dependence on mobile phone use scale. It was a 5 point likert scale, containing 30 statements, for each statement there was response varying from strongly disagree to strongly agree, and the score vary from 1-5 for each response. Total score <90 indicate no dependence on mobile phone, score 91-110 indicate mild dependence, score 111-130 indicate moderate dependence, whereas score 130-150 indicate severe mobile phone dependence. The data was collected among 50 samples in those 8 members [16%] are not having any mobile dependency whereas 14 members [28%] are having mild dependence level on mobile phone, 10 members [20%] are having moderate level of mobile dependence at last 18 members [36%] are having severe dependence level on mobile. The mean value obtain out of the result is 24.16 where as the standard deviation value is 5.641. There is no statistically significant association between level mobile dependence with their demographic variables like age, gender, no of sibling, types of family, occupation of mother, family income per month, domicile area, health problem, emotional problem. Whereas there is statistically significant association between level of mobile dependence with their demographical variables like occupation of father and family problem.

## CONCLUSION

The results of the study are suggestive of mobile phone dependence among students of selected ITI college of Sukma. Among 50 samples in those 8 members [16%] are not having any mobile dependency whereas 14 members [28%] are having mild dependence level on mobile phone, 10 members [20%] are having moderate level of mobile dependence at last 18 members [36%] are having severe dependence level on mobile. The data is indicative that Mobile phone dependence is an important health problem in the students. The sleep quality deteriorates with increasing dependence level. New studies are required to assess the real problem and thereby take appropriate steps to tackle the growing problem.

It was concluded that referring the students with suspected dependence to advanced healthcare facilities, performing occasional scans for early diagnosis and informing the students about controlled mobile phone use are required for the purposes of definitive diagnosis and treatment.

It may be required to give priority to this matter, conduct more studies and evaluate them.

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# Effect of Positive Psychological Intervention in the Level of Depression among the Adolescents

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## Abstract

**Introduction:** Depression is a broad and genuine clinical sickness that contrarily influences physical and psychological circumstances causing enthusiastic and social breakdowns in adolescents.

**Objective:** The main objective of the study is to assess the effectiveness of positive psychological intervention in the level of depression among the adolescents.

**Materials and Methods:** An experimental study was conducted with a quantitative research approach and Quasi-experimental design (pre test-post test control group design). The study sample comprised adolescents who fulfilled the inclusive criteria. 80 samples were screened for the depression level by using the standardized scale DASS 21, out of which 20 samples were included in the study with the use of simple random sampling technique using lottery method. The depression level in both the experimental group and control group was assessed at pre-test and post-test. Data was analyzed using descriptive statistics including paired and unpaired T test.

**Result:** The post test findings reveal that 60% of adolescents in the experimental group have become normal and 40% have a mild level of depression after the positive psychological intervention.

**Conclusion:** Hence it is concluded that the use of positive psychological intervention has

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significant advancement in the emotional wellness, life fulfillment and satisfaction level among adolescents.

**Keywords:** Adolescent; Depression, Intervention; Positive psychology.

## INTRODUCTION

Depression is an emotional issue chiefly portrayed by seriousness from gentle to extreme indications, which can prompt physical



and mental issues, just as impairments in the reasoning system and social breakdowns (American Psychiatric Association, 2000).<sup>1</sup>

Social variables are thought of a huge reason for epression. The social settings in which young people grow up assume a significant part in their turn of events. These conditions and the related conditions contribute towards defensive and hazard factors that advance or frustrate the change to adulthood. Specifically, neediness, long term family inconvenience, aggressive behavior at home and misuse, abuse, disregard and surrender, just as numerous arrangements out of home offices, and absence of family contact is among setup hazard factors known to anticipate adverse results for creating youths (Berger, 2011; Cluver and Gardner, 2007; Coleman and Hagell, 2007).<sup>2-4</sup>

Adolescents living in destitute homes or Child and Youth Care Centres experience stressors beyond those of their family supported peers. On account of a past filled with complex and habitually maladaptive home, school, and social conditions, these young people are helpless against expanded developmental difficulties and mental ailments.<sup>5</sup>

Major depressive sickness is a common hassle for adolescents. It has a wide exhibit of indications influencing somatic, intellectual, emotional, and social cycles. Academic failure, negative peer relationships, behavioral problems, warfare with mother and father and different authority figures, and substance abuse are some consequences of main depressive ailment in this age group and these can be avoided by early intervention. Effective remedies encompass non-tricyclic antidepressants and coping capability education. The nurse educator is a key to detect the melancholic and suicide prevention, especially in health care and educational settings. Through psycho-training, nurse educator can promote recuperation from depression through encouraging a healthy way of life, improving social competencies, and supporting the adolescent to identify and use sources of social help. These measures can save premature death and promote long-term well-being among adolescent.<sup>6</sup>

In India, the research studies determining the prevalence of childhood depression have reported results ranging from 0.48% to 49.2%. The National Mental Health Survey, India (2015-2016) reported the prevalence rate of 0.8% for depression in 13-17 year age group globally, school based student health surveys reported that in India, 24.6% of 13-15 years old students felt so depressed or hopeless almost daily for 2 or more weeks in the past year that they stopped doing their usual activities (World Health

Organization - 2007).<sup>7</sup>

Adolescent psychological well-being is described by generally high rates of mental issues and low degrees of help chasing practices. Mental health programs pointed toward resolving these issues in teenagers have repeated conflicting outcomes. Such projects have commonly been founded on methods got from cognitive behavioral therapy, which may not be obviously fit to early interventions among juvenile examples. Positive psychology, which looks to further develop prosperity as opposed to reduce mental manifestations, offers an optional approach.<sup>8</sup>

Njim, T., *et al.* (2020) concluded the prevalence of depression and major depressive disorder among the nursing students is high i.e., 69.57 and 26.40% respectively. Determinants which are proposed in this study require further appraisal to work with early distinguishing proof and the executives of depression in this high-risk group, to restrict the adverse consequences connected with the condition.<sup>9</sup>

Positive psychology intervention, or PPI, is a fixed of clinical gear and technique that concentrate on increasing happiness, wellness, and advantageous cognition and feelings. Research studies focusing the effectiveness of PPI found out that the 2 working factors that contribute to the fulfillment of these interventions are a shift of attention from bad to tremendous and internalization of positive emotions. Positive psychology interventions have crucial additives:

- Focusing on enhancing happiness through fine mind and emotions.
- Sustaining the outcomes for long-time period.<sup>10</sup>

Appropriately, the expanding pattern of depression in young people and the way that depressed teenagers are helpless against different psychological, intellectual, and meta-intellectual parts, just as the absence of exploration on the viability of positive psychotherapy on mental prosperity and confidence of teenagers with depression, this examination looks for whether positive psychotherapy influences mental prosperity and confidence of adolescents with depression problems.<sup>11</sup> Interviewing the affected person and their dad and mom is vital for accurate analysis and dependent interviews may be useful. Prevalence increases with age. Risk of recurrence is high and is inspired through own family conflict. Therefore, this experimental study investigates the effectiveness of positive psychological intervention

in the level of depression among the adolescents in the selected college at Puducherry. To achieve this, the study objectives include:

- To assess the pretest level of depression among the adolescents residing in the selected college at Puducherry.
- To assess the effectiveness of self-affirmation exercises on control of depression among the adolescents residing in the selected college at Puducherry.
- To evaluate the post-test level of depression among the adolescents.
- To determine the association on the pretest level of depression of the adolescents with selected demographic variables.

## MATERIALS AND METHODS

An experimental study was conducted to evaluate the effectiveness of positive psychological intervention in the level of depression among the adolescents in the selected college, Puducherry. A Quantitative research approach and Quasi-experimental design (pre-test - post-test control group design) were used for this study. The study sample comprised of adolescents who fulfilled the inclusion criteria. 80 samples were screened for the depression level by using the standardized scale DASS 21, out of which 20 samples who have depressive symptoms were included in the study with the use of simple random sampling technique using lottery method. Further these samples were randomly allotted into two groups of 10 samples equally in both the experimental group and control group. Formal consent was obtained from the respective authority to conduct this study at selected college, Puducherry. Consent was obtained from all the samples to conduct this study. The researcher presented information to the samples before collecting the pre-test data. After the student returned the signed consent, they were given the main tool for collecting the data. Time taken to complete the tool for a sample is of about 20 to 30 minutes. The data collection tool consists of two sections. Section-A comprised of Demographic data which includes age, gender, religion, education and stress handling measures. Section-B comprised of Depression, Anxiety, and Stress Scale (DASS SCALE). Sin and Lyubomirsky (2009) characterized PPI as a psychological intervention that basically focus on raising good feelings, positive thoughts, and positive conduct.<sup>12</sup> In this study, positive psychological intervention was planned and

scheduled for one month, which primarily focused on raising the positive feelings, positive thoughts, and positive behavior of the samples. The depression level in both the experimental group and control group was assessed at pre-test and post-test. Initially the experimental group was given positive psychological intervention for about a month (Table 1).

**Table 1:** Intervention Schedule

| Components of PPI       | Activities   |
|-------------------------|--|
| Savouring Interventions | Consciously orienting towards the day-to-day life activities like eating, smelling, observing etc. |
| Gratitude Journal       | Diary writing about the positive aspects of the particular day involving self.                     |
| Kindness act            | Offering help and support for at least a single person a day.                                      |
| Self love               | Practicing yoga and meditation half an hour a day.   |
| Grooming                | Practicing to take self and group pictures a day   |

But no intervention is given to the control group. After which, the post-test was conducted to both the control and experimental group after the completion of intervention session. The data were collected and analyzed using descriptive statistics including paired and unpaired T-test. Privacy and confidentiality were maintained. After the completion of study, education and awareness about the PPI was given to the control group to commemorate the ethical morality.

## RESULTS

Distribution of control and experimental group samples according to the demographic variables revealed that a total of 20 adolescents participated in the study, in which 10 adolescents were considered as control group and 10 adolescents were considered as the experimental group. Of those 20 participants majority falls between the age group of 17-18 years (90% of the control group and 80% of experimental group). All the adolescents were males (100%). Out of 20 adolescents from both the control (70%) and experimental groups (90%), the majority of adolescents were Hindus. Most of the control group adolescents were from urban (40%) and rural (40%) areas. Most of the experimental group adolescents (60%) were from urban areas. Samples of controlled group once lived in a hostel (50%) and at home (50%). The majority of samples of experimental group once lived at home (60%). Control group samples are from both nuclear (50%)

and joint (50%) family. Most of the experimental group samples are from nuclear family (60%). 40% of the samples from the control group works at part time and from the experimental group, 50% of samples works at part time and remaining samples (50%) are not working. Regarding the economic status, the majority of samples from both the control group (90%) and the experimental group (100%) are from the middle class. Based on the past year

**Table 2:** Distribution of the control and experimental group samples according to the demographic variables

| Demographic variables | Control group (n=10) |     | Experimental group (n=10) |     |
|-----------------------|----------------------|-----|---------------------------|-----|
|                       | F                    | %   | F                         | %   |
| <b>Age (in years)</b> |                      |     |                           |     |
| 17-18                 | 9                    | 90  | 8                         | 80  |
| 19-20                 | 1                    | 10  | 2                         | 20  |
| <b>Gender</b>         |                      |     |                           |     |
| Male                  | 10                   | 100 | 10                        | 100 |
| Female                | 0                    | 0   | 0                         | 0   |
| <b>Religion</b>       |                      |     |                           |     |
| Hindu                 | 7                    | 70  | 9                         | 90  |
| Christian             | 2                    | 20  | 1                         | 10  |
| Muslim                | 1                    | 10  | 0                         | 0   |
| Others                | 0                    | 0   | 0                         | 0   |

academic performance scores, most of the samples (60%) from the control group scores around 51-60% of marks and (50%) samples from the experimental group scores below 50% of marks (Table 2).

Table 3.1 indicates that there is a significant difference (Mean-18%) between experimental pre test and post test scores which shows that the level of depression decreases after the positive psychological intervention. From the table 3.2, it is evident that the level of depression in the control group has no major differences during both pre test (Mean-36%) and post-test (Mean-37%). The level of depression remains same in both the control pre test (Mean-36%) and experimental pre test (60%) before the positive psychological intervention (Table 3.3). From table 3.4, the post test findings show that there is a significant difference (Mean-19%) between the control post test and experimental post test after the positive psychology intervention.

The level of depression in the control group remains same during both pre test and post test (Mild-30%, Moderate-60% and Severe-10%). The adolescents in the experimental group have significant improvement after the intervention against various levels of depression. The post test findings reveal that 60% of adolescents in the experimental group have become normal and 40% have a mild level of depression after the positive psychological intervention (Figure 1).

**Table 3:** Mean, SD and mean% to evaluate the Effectiveness of positive psychology interventions regarding the level of depression among late adolescents in selected colleges at Puducherry.

**Table 3.1:** Mean, SD and mean% to evaluate the Effectiveness of interventions regarding the level of depression in the experimental pre test and post test scores.

| Depression | Max Score | Experimental Pre-test scores |      |        | Experimental Post-test scores |      |        | Difference in mean % |
|------------|-----------|------------------------------|------|--------|-------------------------------|------|--------|----------------------|
|            |           | Mean                         | SD   | Mean % | Mean                          | SD   | Mean % |                      |
| Overall    | 21        | 7.5                          | 1.84 | 36     | 3.8                           | 1.62 | 18     | 18                   |

**Table 3.2:** Mean, SD and mean% to evaluate the Effectiveness of interventions regarding the level of depression in the control pre test and post test scores.

| Depression | Max score | Control Pre-test scores |      |        | Control Post-test scores |      |        | Difference in mean % |
|------------|-----------|-------------------------|------|--------|--------------------------|------|--------|----------------------|
|            |           | Mean                    | SD   | Mean % | Mean                     | SD   | Mean % |                      |
| Overall    | 21        | 7.6                     | 1.78 | 36     | 7.7                      | 1.77 | 37     | 1                    |

**Table 3.3:** Mean, SD and mean% to evaluate the Effectiveness of interventions regarding the level of depression between the experimental group and control group pre test scores.

| Depression | Max | Control Pre-test scores |      |        | Experimental Pre-test scores |      |        | Difference in mean % |
|------------|-----|-------------------------|------|--------|------------------------------|------|--------|----------------------|
|            |     | Mean                    | SD   | Mean % | Mean                         | SD   | Mean % |                      |
| Overall    | 21  | 7.6                     | 1.78 | 36     | 7.5                          | 1.84 | 36     | 0                    |

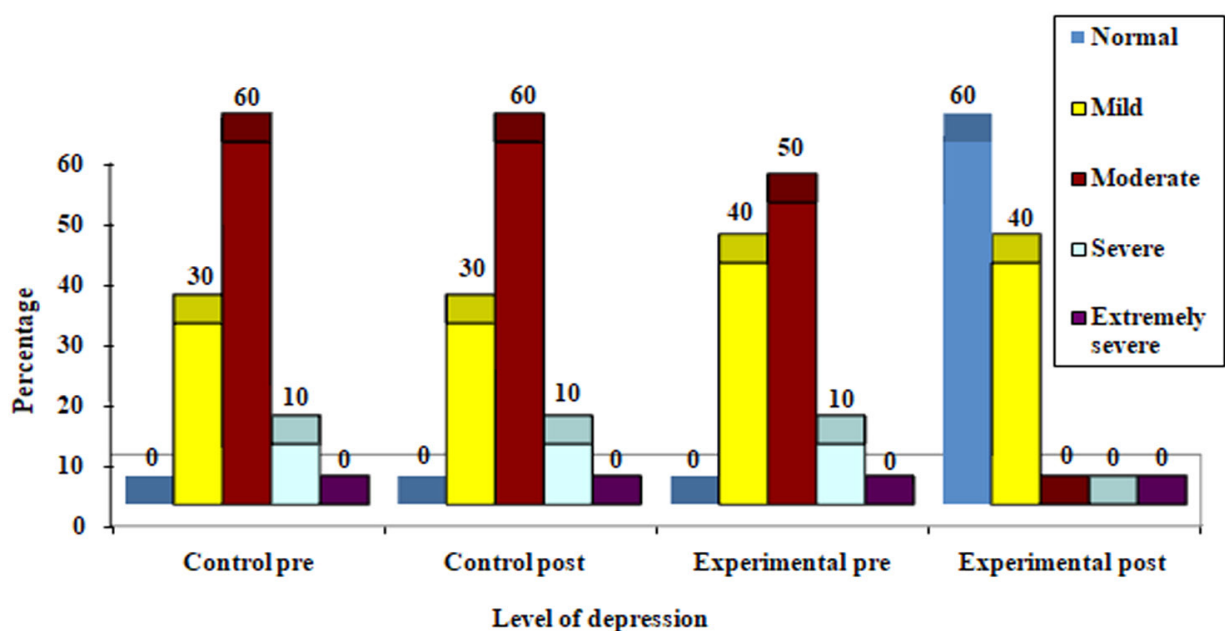


**Table 3.4:** Mean, SD and mean% to evaluate the Effectiveness of interventions regarding the level of depression between the experimental group and control group post test scores.

| Depression | Max score | Control post-test scores |      |        | Experimental Post-test scores |      |        | Difference in mean % |
|------------|-----------|--------------------------|------|--------|-------------------------------|------|--------|----------------------|
|            |           | Mean                     | SD   | Mean % | Mean                          | SD   | Mean % |                      |
| Overall    | 21        | 7.7                      | 1.77 | 37     | 3.8                           | 1.62 | 18     | 19                   |

Table 4.1 and table 4.2 shows that, paired sample t-tests were used to examine pre and post changes for each group. There was a statistically significant difference in the scores of the experimental group before and after completion of the intervention. The results of the t-tests of the experimental group were

statistically significant across the variable tested: depression ( $t = 6.62$ ,  $p < 0.001^{***}$ ). No statistically significant difference was observed for the post-intervention outcomes of the control group ( $t=1$ ,  $p = 0.3434$ ).



**Fig. 1:** Percentage distribution to evaluate the Effectiveness of positive psychological interventions regarding the level of depression between the experimental group and control group.

**Table 4:** Paired t-test to evaluate the Effectiveness of positive psychology interventions regarding the level of depression among adolescents in selected colleges at Puducherry

**Table 4.1:** Paired t-test to evaluate the Effectiveness of positive psychology interventions regarding the level of depression among the experimental pre test and post test scores.

| Depression | Experimental pre-test |      | Experimental post-test |      | Mean difference | t'-value | P-value           |
|------------|-----------------------|------|------------------------|------|-----------------|----------|-------------------|
|            | Mean                  | SD   | Mean                   | SD   |                 |          |                   |
| Overall    | 7.5                   | 1.84 | 3.8                    | 1.62 | 3.7             | 6.62     | $P < 0.001^{***}$ |

**Table 4.2:** Paired "t"-test to evaluate the Effectiveness of positive psychology interventions regarding the level of depression among the control group pre test and post test scores.

| Depression | Control pre-test |      | Control post-test |      | Mean difference | t'-value | P-value |
|------------|------------------|------|-------------------|------|-----------------|----------|---------|
|            | Mean             | SD   | Mean              | SD   |                 |          |         |
| Overall    | 7.6              | 1.78 | 7.7               | 1.77 | 0.1             | 1        | 0.3434  |

\*- $P < 0.05$ , significant and \*\*- $P < 0.01$  & \*\*\*- $P < 0.001$ , highly significant



The Effectiveness of positive psychological interventions regarding the level of depression among the adolescents of experimental and control post test group score is given in the Table 5. The

experimental group demonstrated statistically significant differences ( $p < 0.001^{***}$ ) compared to the control group in the post intervention test with the mean difference of 3.9, and the t-value of 5.14.

**Table 5:** Unpaired t-test to evaluate the Effectiveness of positive psychology interventions regarding the level of depression among the experimental and control post test scores.

| Depression | Control post-test |      | Experimental post-test |      | Mean difference | 't'-value | P-value           |
|------------|-------------------|------|------------------------|------|-----------------|-----------|-------------------|
|            | Mean              | SD   | Mean                   | SD   |                 |           |                   |
| Overall    | 7.7               | 1.77 | 3.8                    | 1.62 | 3.9             | 5.14      | $P < 0.001^{***}$ |

\*- $P < 0.05$ , significant and \*\*- $P < 0.01$  & \*\*\*- $P < 0.001$ , highly significant

## DISCUSSION

The study inquired the effect of positive psychological intervention in the level of depression among the adolescents in the selected college, Puducherry. The present investigation discovered that participation in 1 month positive psychological intervention assimilated that the components of PPI such as Savouring, Interventions, Gratitude Journal, Kindness act, Self love and Grooming supported the effect of intervention on the deterioration of depressive symptoms in adolescents. The effects of the current study were positive for changes in depression level where the outcome of pre test and post test of the experimental group exhibit that the difference in mean is 18%.

These results go beyond previous reports, as one model, Seligman and partners organized an online trial in which they arbitrarily designated mildly depressed 411 volunteers, on average, with a mean score of 14.1 on (CES-D) scale to draw in for a week in 1 of 5 well-being improving activities versus a control placebo activity (include composing early experiences). Participants experienced a transient boost, yet got back to their baseline after 7 days in the placebo condition. Conversely, the individuals who finished the positive exercises encountered improvement in well-being and diminished depressive symptoms, and these advantages were keeping up with the intervention completed.<sup>13</sup>

A similar conclusion was reached by Seligman in another study in which he directed critically depressed persons (CES-D mean of 33.9) to participate in the "3 good things" PAI consistently. In the span of fifteen days, participants' CES-D scores declined by 16.7 points (depression from severe level to mild-to-moderate level) and 94% encountered relief. Thus, even though the advancement, research, and execution of positive psychology interventions are in their beginning

phases, such activities show guarantee for ameliorating the lives of people, what's more, doing as such at a remarkably rapid rate.<sup>14</sup> This is consistent with what has been found in one of the previous study, whose results showed that the mean scores of experimental pre-test and post test were significantly different at 0.05 levels for psychological well-being.<sup>15</sup> Our result casts a new light on improvement of psychological well-being in adolescents.

Even though positive psychological science is somewhere around a decade old, positive interventions have proactively acquired considerable hypothetical and practical sustenance in the literature. Future investigation on PAIs in clinical settings would facilitate the management of depression in a significant way by developing positive feelings, positive thoughts, positive behavior and positive experiences, rather than pointing exclusively to improve symptoms of depression.<sup>16</sup>

Controlled randomized longitudinal analyses have endorsed the feasibility of these deliberate exercises in augmenting well-being and diminishing depressive symptoms.<sup>17</sup> Past investigation by Lyubomirsky and his partners, for instance, have tracked down evidence that the connection between positive psychological interventions furthermore, has consecutive decline in depressive symptoms which is arbitrated by expansions in positive affect.<sup>18</sup> To compare, an exemplary meta-analysis of 375 psychotherapy investigations discovered that psychotherapy exhibited a typical effect size  $r$  of 0.32 for results like self esteem and reconciliation.<sup>19</sup>

Overall, these findings are in accordance with results reported in thirty investigations were incorporated, addressing 1864 patients who are suffering with clinical ailments. At post-intervention, PPIs cast substantial, little effect sizes for depression (Hedges'  $g = 0.23$ ) and well-being

( $g = 0.24$ ) contrasted with control conditions while excluding exceptions. Follow-up effects (8 to 12 weeks), when accessible, provided comparative effect sizes. These findings signify that PPIs, where the attention is about evoking positive feelings, ways of behaving or cognition, not just can possibly further develop well-being, however can likely diminish distress in people with clinical problems. Given the developing curiosity for PPIs in a clinical environment, many explorations are justified to decide the efficacy of PPIs in clinical cases.<sup>20</sup>

As per the present study's outcomes, demonstrating a critical positive psychological intervention is useful in decreasing depression and has a positive impact on psychological well-being. In general, the positive psychological intervention portrayed in this paper was viable in the advancement of positive feelings, positive thoughts, positive behavior and confidence of the participants. Adolescents participated in the study detailed that they have benefited from their association with that group. Hence it is concluded that the use of positive psychological intervention has significant advancement in the emotional wellness, life fulfillment and satisfaction level among adolescents.

## CONCLUSION

The results of this study provide insight into the psychological interventions which showed significant changes in the level of depression among adolescents. Hence it is concluded that the use of positive psychological interventions helps to improve the emotional wellness, life fulfillment and satisfaction level among adolescents.

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# Counselling of Clients with Behavioral Disorders using Behavioural Approach

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## Abstract

Behavioral therapy is a type of psychotherapy that focuses on identifying and changing unwanted behaviors. It's based on the idea that all behaviors are learned and can therefore be unlearned. Behavioral therapists use a variety of techniques to help people change their behavior. Unwanted behaviour is defined as an undesired response to something or someone in the environment. Using this approach, a counsellor would identify the unwanted behaviour with a client and together they would work to change or adapt the behaviour.<sup>1</sup>

Classical conditioning involves forming associations between stimuli. Previously neutral stimuli are paired with a stimulus that naturally and automatically evokes a response. After repeated pairings, an association is formed and the previously neutral stimulus will come to evoke the response on its own.<sup>2</sup>

Operant conditioning, sometimes referred to as instrumental conditioning, is a method of learning that employs rewards and punishments for behavior. Operant conditioning is a type of learning in which behavior is modified by its consequences. Behaviors that are followed by positive consequences are more likely to be repeated, while behaviors that are followed by negative consequences are less likely to be repeated.<sup>7</sup>

Behavioral therapy rests on a core set of assumptions like *Learned Behaviors, Focus on Present, Client Responsibility, Observable Behavior, Learning Principles and Tailored Approach*.

**Keywords:** Behavioral Therapy; Psychotherapy; Classical Conditioning; Operant Conditioning; Aversion Therapy; Flooding; Systematic desensitization.

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## INTRODUCTION

Behavioral therapy is a type of psychotherapy that focuses on identifying and changing unwanted behaviors. It's based on the idea that all behaviors are learned and can therefore be unlearned. Behavioral therapists use a variety of techniques to help people change their behavior. Unwanted behaviour is defined as an undesired



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response to something or someone in the environment. Using this approach, a counsellor would identify the unwanted behaviour with a client and together they would work to change or adapt the behaviour.<sup>1</sup>

### Assumptions of Behavioral Therapy

Behavioral therapy rests on a core set of assumptions about how we learn and behave:

- **Learned Behaviors:** Behavioral therapy views all behavior, both helpful and unhelpful, as learned. We learn through interacting with our environment, and these learned patterns can be modified through new learning experiences.<sup>1</sup>
- **Focus on Present:** While past experiences may have shaped current behaviors, the main focus is on identifying and changing current behavioral patterns. Understanding the roots of a behavior can be helpful, but it's not essential for changing it.
- **Client Responsibility:** Behavioral therapy empowers clients. It assumes they have the ability to take control of their behaviors and make positive changes. The therapist acts as a guide and facilitator in this process.<sup>2</sup>
- **Observable Behavior:** The core focus is on observable behaviors, not just thoughts or feelings. This allows for more objective assessment and measurement of therapeutic progress.
- **Learning Principles:** Behavioral therapy draws on established principles of learning, like operant conditioning, to develop techniques for reinforcing desired behaviors and weakening unwanted ones.
- **Tailored Approach:** There's no one-size-fits-all approach. Treatment plans are designed based on the specific needs and goals of each individual client.

### Techniques of Behavioural Approach

The four techniques of behavioural approach are as follows:

1. Classical conditioning
2. Operant conditioning

### CLASSICAL CONDITIONING

Classical conditioning involves forming associations between stimuli. Previously neutral

stimuli are paired with a stimulus that naturally and automatically evokes a response. After repeated pairings, an association is formed and the previously neutral stimulus will come to evoke the response on its own.<sup>2</sup>

Ivan Pavlov illustrated classical conditioning through experiments with dogs. Placing food in a dog's mouth leads to salivation, which is respondent behavior. When food is repeatedly presented with some originally neutral stimulus, such as the sound of a bell, the dog will eventually salivate to the sound of the bell alone.

Classical conditioning is one way to alter behavior. Several different techniques and strategies are used in this approach to therapy.

### Aversion Therapy

Aversion therapy is a type of behavioral therapy that aims to help people reduce or eliminate unwanted behaviors by pairing them with unpleasant stimuli. The idea is that by repeatedly associating the behavior with something negative, the person will eventually develop an aversion to the behavior itself and be less likely to engage in it. For example, someone with an alcohol use disorder might take Antabuse (disulfiram), a drug that causes severe symptoms (such as headaches, nausea, anxiety, and vomiting) when combined with alcohol.<sup>3</sup>

There are a number of different ways to apply aversion therapy. Some common methods include:

- **Electrical aversion:** This involves pairing the unwanted behavior with a mild electric shock. This method has been used to treat a variety of behaviors, including alcoholism, smoking, and self-harm.
- **Chemical aversion:** This involves pairing the unwanted behavior with a nauseating substance, such as disulfiram (Antabuse), which causes unpleasant side effects when combined with alcohol.
- **Imaginal aversion:** This involves having the person imagine themselves engaging in the unwanted behavior and then experiencing a negative consequence. This method can be used for behaviors that cannot be safely paired with a real-life aversive stimulus.<sup>4</sup>

### Merits of Aversion Therapy:

- **Can be effective for some behaviors:** Aversion therapy has shown success in reducing undesired behaviors, particularly those



related to substance abuse like alcoholism. For instance, pairing the taste of alcohol with nausea-inducing medication can create an aversion to drinking.

- **Relatively quick:** Compared to some therapies, aversion therapy can produce results faster.
- **Can be used alongside other therapies:** Aversion therapy can be combined with other behavioral therapies or medications for a more comprehensive treatment approach.<sup>4</sup>

#### Limitations of Aversion Therapy:

- **Ethical concerns:** The use of electric shocks or other strong unpleasant stimuli can be seen as unethical, especially if not completely voluntary.
- **Limited effectiveness:** Aversion therapy may not be effective for all behaviors and can have diminishing returns over time.
- **Risk of negative side effects:** Aversion therapy can cause anxiety, shame, or even PTSD if not administered carefully.
- **Doesn't address underlying causes:** Aversion therapy focuses on changing the behavior itself, but it doesn't necessarily address the root cause of the issue.

## **FLOODING**

Flooding therapy is a type of exposure therapy used to treat phobias and anxiety disorders. It involves exposing the patient to their feared stimuli in a safe and controlled environment, but at a much more intense level than they would normally experience. The goal is to help the patient learn that their fears are unfounded and that they can cope with the anxiety that they experience.

Flooding therapy can be a very effective treatment for phobias and anxiety disorders. However, it is important to note that it is not for everyone. It is an intensive form of therapy that can be very anxiety provoking. It is important to work with a qualified therapist to determine if flooding therapy is right for you.<sup>5</sup>

#### Benefits of flooding therapy:

- It can be a very effective treatment for phobias and anxiety disorders.
- It can help patients to learn to cope with anxiety in a healthy way.

- It can help patients to live a more normal and fulfilling life.

#### Risks of flooding therapy:

- It can be very anxiety provoking.
- It may not be suitable for everyone.
- There is a risk of flooding therapy triggering a panic attack.

## **SYSTEMATIC DESENSITIZATION**

Systematic desensitization is a type of exposure therapy that can help people overcome phobias and anxieties. It works by gradually exposing the person to their fear in a safe and controlled environment, while they learn relaxation techniques to cope with their anxiety.

#### There are three phases of the Systemic Desensitization:

1. **Relaxation Training:** The individual learns deep muscle relaxation techniques and breathing exercises to control anxiety and physical reactions to stress. This step is very important because of reciprocal inhibition, where, once the response is inhibited because it is incompatible with another. In the case of phobias, fears involve tension, and tension is incompatible with relaxation.
2. **Establishment of Anxiety Hierarchy:** The individual and therapist collaboratively create a list of fear inducing situations related to the specific phobia, ranking them from least anxiety provoking to most. The list is crucial as it provides a structure for the therapy.<sup>5</sup>
3. **Gradual Exposure:** Starting with the least anxiety inducing situation, the individual is exposed to each item while employing relaxation techniques. They move up the hierarchy only when they can remain relaxed at the current level. Over time, this exposure in a relaxed state diminishes the anxiety response to the feared stimulus. The client repeatedly imagines (or is confronted by) this situation until it fails to evoke any anxiety, indicating that the therapy has succeeded.

#### Merits of Systematic Desensitization:

- **Effective for Specific Phobias:** SD is highly successful in treating phobias like fear of heights, spiders, or public speaking. It helps people gradually confront their fears in a safe environment, reducing anxiety and

avoidance behaviors.

- **Teaches Relaxation Techniques:** Learning relaxation techniques like deep breathing or muscle relaxation is a valuable skill for managing anxiety in general. SD incorporates these techniques, giving patients tools to cope with stressful situations beyond the specific phobia.
- **Evidence Based Approach:** Systematic desensitization is a well researched and proven therapy with a strong track record of effectiveness.<sup>6</sup>

### Limitations of Systematic Desensitization:

- **Time Commitment:** SD can be a slow process, requiring regular sessions with a therapist over weeks or months. This might not be ideal for everyone.
- **Not for All Disorders:** While great for phobias, SD isn't effective for complex mental health conditions like depression or schizophrenia.
- **Focuses on Symptoms:** SD addresses the outward signs of anxiety, but may not delve into the underlying causes of the phobia.
- **Can be Uncomfortable:** Facing feared situations can be anxiety provoking, even in a controlled setting. This temporary discomfort is part of the process, but some may find it difficult.<sup>6</sup>

### Operant Conditioning

Operant conditioning, sometimes referred to as instrumental conditioning, is a method of learning that employs rewards and punishments for behavior. Operant conditioning is a type of learning in which behavior is modified by its consequences. Behaviors that are followed by positive consequences are more likely to be repeated, while behaviors that are followed by negative consequences are less likely to be repeated.<sup>7</sup>

### Contingency Management

Contingency management (CM) is a technique used to modify behavior by using rewards and sometimes consequences. It's based on the idea that people are more likely to repeat behaviors that have positive outcomes and less likely to repeat those with negative outcomes. The core principle of CM is rewarding desired behaviors. These rewards can be tangible things like vouchers or praise.

CM is used in various settings, most commonly

to address substance abuse. It can also be used to improve medication adherence, or promote positive behaviors in children.<sup>7</sup>

### Response Cost

The term "response cost" is used in Applied Behavior Analysis (ABA) therapy. It refers to a technique used to decrease undesirable behaviors.

#### *Here's how it works:*

- ❖ **Target behavior identified:** First, a specific unwanted behavior is identified that you want to reduce.
- ❖ **Reinforcer removal:** When the target behavior occurs, a preferred item, privilege, or token is taken away. This acts as a punishment and discourages the behavior.
- ❖ **Positive reinforcement:** Response cost is often used alongside positive reinforcement for desired behaviors. This way, the individual learns the connection between their actions and the consequences.

## BEHAVIOR MODELING

This technique involves learning through observation and modeling the behavior of others. Rather than relying simply on reinforcement or punishment, modeling allows individuals to learn new skills or acceptable behaviors by watching someone else perform those desired skills.<sup>8</sup>

It is relatively simple and is designed to assist clients in learning new behavior patterns. It is based on the principle of observational learning. Two things that are needed in modeling are: Ideal Model and Modeled behaviour or Desired Behaviour by the model (to be learned by the client).

In modelling the clients are told to repeat the behaviour what was taught them through modeling. It is assumed that the client must be able to demonstrate an imitative response/behaviour learned through simply observation. It is important that after each copied behaviour, corrective and positive feedback should be given performed in different situations and context.<sup>8</sup>

### Merits / Advantages of Modelling

- ❖ It is cost effective because demonstration of a skill requires minimal cost of resources.
- ❖ This is an interactive approach where the trainer direct and learner witnesses a demonstration. Further, the trainer can



visit with each participant to evaluate their attempts at the skill and correct.

- ❖ Learning in this technique focuses largely on learner attempting the skill. The learner gets the opportunity to interact with their peers, collaborate and discuss their learning with the instructor in real life situations. This allows for the learner to determine the course of the session as it leaves a great deal of space for participation and questions.<sup>9</sup>

### *Limitations of Modelling*

- ❖ In this method, there lacks a scope for creativity as the training provides the learner with one model for which to perform a skill. Rather than allowing the learner to complete a task using their own creativity you limit the learner by allowing completion by following one set of prescribed tasks.
- ❖ In order to get the positive results, the trainer should be expert in using techniques for behaviour modification. The trainer has the opportunity to teach the learner a skill by demonstrating it themselves so must be competent in the skill they are attempting to train to avoid teaching it incorrectly. If the training is for a very specific skill the trainer may need to be outsourced to find an expert and this becomes expensive.<sup>9</sup>

### *Token Economy*

This strategy relies on reinforcement to modify behavior. Parents and teachers often use token economies, allowing kids to earn tokens for engaging in preferred behaviors and lose tokens for undesirable behaviors. These tokens can then be traded for rewards such as candy, toys, or extra time playing with a favorite toy.<sup>10</sup>

A token economy is a system that uses positive reinforcement to modify behavior. It's a core technique in Applied Behavior Analysis (ABA) therapy.

#### *Here's how it works:*

- **Desired behaviors are identified:** This could be anything from completing tasks to social interaction.
- **Tokens are awarded:** When someone exhibits the desired behavior, they receive a token (like a chip or sticker).
- **Tokens are exchanged for rewards:** Tokens can be saved and later exchanged for preferred

activities, privileges, or even tangible items.<sup>11</sup>

This system capitalizes on operant conditioning, where behavior is influenced by its consequences. Earning tokens becomes a positive consequence that strengthens the desired behavior.<sup>12</sup>

## **CONCLUSION**

Behavioral therapy is a type of psychotherapy that focuses on identifying and changing unwanted behaviors. It's based on the idea that all behaviors are learned and can therefore be unlearned. Behavioral therapists use a variety of techniques to help people change their behavior unwanted behaviour is defined as an undesired response to something or someone in the environment. Using this approach, a counsellor would identify the unwanted behaviour with a client and together they would work to change or adapt the behaviour.<sup>1</sup>

*Conflict of Interest:* NIL

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