

# Mindfulness and Self Regulation among Intermediate Students

Geeta Kumari<sup>1</sup> and Tejashwini Arya Reddy<sup>2</sup>

<sup>1</sup>Asst. Professor, Department of Psychology, St. Francis College for Women, Hyderabad

<sup>2</sup>Undergraduate in Psychology, St. Francis College for Women, Hyderabad

E-mail: <sup>1</sup>sgeeta1070@gmail.com, <sup>2</sup>arya.reddy5998@gmail.com

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**Abstract**—Mindfulness is keeping ones complete attention to the experience on a moment to moment basis. (Marlett & Kristeller, 1999). Self regulation is control of oneself by oneself. (Bell, 2016). This study aims to find out if there is a correlation between mindfulness and self regulation among the intermediate students. It also aims to study if there is a difference in the levels of mindfulness between students playing sports and students not playing sports. Purposive sampling, convenience sampling and snowball sampling techniques were used to collect data from 120 individuals. Freiburg Mindfulness Inventory (FMI) (2006) and Self Regulation Questionnaire (SRQ) by Miller and Brown (1991) were used to collect the data. Data analysis shows that there is a significant correlation between mindfulness and self regulation. But there is no relationship between the age, gender and mindfulness. The results did not show any any significant difference between the students playing sports and the students not playing sports.

## 1. INTRODUCTION

Life can pass by before the ink gets dry on paper, when one is not focused on what matters. The general tendency of human beings is to ruminate about the past and ignore the present. Being mindful can help one focus on the present. "Mindfulness is a state of active, open attention on the present. When we are mindful, we carefully observe our thoughts and feelings without judging them as good or bad." (Whitbourne, S. K., Ludden, D., Penman, D., & Pogosyan, M. (n.d.). In Mindfulness.)

Mindfulness is a term stemming from the Pali language, whereby Sati is combined with Sampajana, and this term is translated to mean awareness, circumspection, discernment, and retention. Mindfulness can also be a blooming way to recognise and control concealed emotions that may be causing complications in ones personal and professional lives. It means living in the moment and waking up to ones present experience. Mindfulness is often used in meditation and certain kinds of therapy. It has many advantages, like reducing stress levels, harmful ruminating, upgrade ones overall health. Researches suggest that mindfulness can also help people to cope better with rejection and social isolation. Mindfulness means to remember to pay attention to what is occurring in

one's immediate experience with care and discernment. (Black, D.S.) (2011). Presently mindfulness is widely regarded as a basic aspect of human awareness. It is a capacity of attention and awareness in the present moment which varies in level within and between the individuals, and can be evaluated experimentally, free of religious, cultural and spiritual factors. Mindfulness is an English translation of the Pali word "sati". Pali was the language of Buddhist psychology 2500 years ago and mindfulness is the core teaching of this tradition. Sati connotes awareness, attention and remembering. Brown and Ryan (2003) define awareness and attention under the umbrella of consciousness: "Consciousness encompasses both awareness and attention. Awareness is the background "radar" of consciousness, continually monitoring the inner and outer environment. One may not concentrate on the present stimuli and yet be aware of it. In 1999, Westin said that the process of concentrating on conscious awareness is attention. In actuality, awareness and attention are intertwined, such that attention continually pulls "figures" out of the "ground" of awareness, holding them focally for varying lengths of time".

The word "mindfulness" can be used to describe a theoretical construct (mindful-ness), a practice of cultivating mindfulness (such as meditation), or a psychological process (being mindful). A basic definition of mindfulness is "moment by moment awareness". "Keeping one's consciousness alive to the present reality" (Hanh, 1976); "The clear and single-minded awareness of what actually happens to us and in us at the successive moments of perception" (Nyanaponika Thera, 1972); attentional control (Teasdale, Segal & Williams, 1995); "Keeping one's complete attention to the experience on a moment-to-moment basis" (Marlatt & Kristeller, 1999), (Germer, 2004).

Mindfulness is an ability that lets one to be less reactive to what occurs in the moment. It is a way to connect to all experiences—positive, negative and neutral— such that ones overall pain is decreased and ones well-being increases. To be mindful is to awaken, to identify what is happening at the moment. One is sporadically mindful. Mindfulness focuses

ones concentration on the job at hand. When one is mindful, one is not judging or dismissing what is taking place at the present moment.

A study was conducted by Daniel R. Evans, Ruth A. Baer and Suzanne C. Segerstrom in 2009 on the effects of mindfulness and self-consciousness on persistence on a sample of 142. This study found out that the non judging and non reacting facets of trait mindfulness estimated greater persistence on a difficult lab task. This study also states that mindfulness may improve self regulation. Jeffrey M. Greeson in 2009 conducted a study to briefly review the effects of mindfulness on the mind, brain, body and behaviour. The results showed that being more mindful led to lesser emotional distress, greater positive states of mind and also a better quality of life. Also mindfulness has showed an impact on the brain, autonomic nervous system, stress hormones, immune system as well as basic eating, sleeping health behaviours. A study on nurturing mindfulness in children and youth was conducted in 2011 by Mark T. Greenberg and Alexis R. Harris. This study analysed the current state of research (in 2011) on contemplative practices with children and youth. It states that including the upbringing of mindfulness may be an attainable and successful method of constructing resilience in children and youth in universal population.

A study on accomplishment of adolescent developmental tasks of tenth grade students was conducted in 2016 in a school of Indonesia. Developmental Task Inventory (ITP) was administered on 59 tenth grade students by systematic random sampling, by Harlina Harlina, Melisa K Putri. Results show that they have attained self awareness and carefulness levels at that stage of their lives. The authors also recommended to use this study as a base for guiding and counselling the students at schools. Another study was conducted on School based meditation practices for adolescents in 2010 by Betsy L. Winsor, Barbara Jones, David Gwin. It states that the mindfulness meditation which is offered in schools increases academic and psycho - social strengths, and also enhances self regulation and coping abilities.

A study was conducted by Esther I. De Bruin, Bonne J. H. Zijlstra, Eva van de Weijer - Bergsma Susan M. Bögels in 2011 on the Dutch adolescents (11 - 17 years) of general population. The results showed positive correlation between mindfulness, happiness and self regulation.

Self-regulation is “control [of oneself] by oneself” (Bell, 2016). The goal of most types of therapy is to improve an individual’s ability to self-regulate; to gain (or regain) a sense of control over their behaviour and their lives. Psychologists generally refer to two specific types when they use the term “self-regulation”: Behavioural Self regulation and Emotional Self regulation. Behavioural self-regulation is “the ability to act in your long-term best interest, consistent with your deepest values” (Stosny, 2011). Behaviourally, self-regulation is the ability to act in ones long-term best interest, consistent with ones deepest values.

According to Ackerman, this allows one to feel one way but act differently. If one has ever felt lazy but waking up early in the morning for work but recollect their goals or basic needs (e.g., food, shelter) and got out of the house, then they displayed effective self behavioural self regulation. On the other hand, emotional self-regulation involves control of ones emotions. If one has ever spoken oneself out of a distress or bad mood or cooled oneself down, then one was exhibiting effective emotional self-regulation.

Stosny in 2011 stated that research consistently showed that self-regulation skill is essential for reliable emotional well being. Emotionally, self-regulation is the ability to calm oneself down when one is upset and cheer oneself up when one is low. One can effectively improve the skill of self regulation by understanding the biology and functions of emotions.

A study was conducted on childhood poverty, chronic stress, self regulation and coping by Gary W. Evans and Pilyoung Kim in 2012 which states that poverty causes a wide range of physical stressors and psycho social stressors, leading to chronic stressors. These stressors pile up, causing a disturbance in self regulatory processes that help children cope with their external needs. Theodore W. Gardener, Thomas J Dishion and Arin M. Connel conducted a study on adolescent self regulation as a base to resilience. Hypothesis of this study was that self regulation would cater as a resilience factor in safeguarding youth from negative influences of peers. Results showed that self regulation served as a resilience factor to the negative influences. A study on self control, social factors and delinquency was conducted on a Chinese sample of 14 to 19 year olds by Nicole W. T. Cheung and Yeut W. Cheung in 2007. Results show that delinquency has a correlation with low self control. The study also showed that low self control is associated with negative social conditions like education under achievement, coercive parenting, delinquency etc in the Chinese setting. Another study conducted by David P. Manzeske and Ann Hopkins Stright on parenting styles, behaviour control and emotion regulation on young adults. Results showed that greater levels of maternal control led to lower levels of emotion regulation in the sample.

### 1.1. Research questions

- Is there a relationship between mindfulness and self regulation?
- Is there a difference in the levels of mindfulness with respect to the number of hours of outdoor sports played (physical activity) by an individual?

### 1.2. Objectives

- To know if there is a correlation between mindfulness and self regulation
- To know if there is any significance between mindfulness and sports played

- To know if there is any significance between the gender and mindfulness
- To know if there is any significance between the gender and self regulation
- To know if there is any significance between the age and mindfulness
- To know if there is any significance between the age and self regulation

### 1.3. Hypothesis

- H1: There exists a relationship between Mindfulness and Self regulation
- H2: There exists a relationship between Mindfulness and their physical exercise (sports played)
- H3: There exists a significant difference between gender and mindfulness
- H4: There exists a significant difference between gender and self regulation
- H5: There exists a significant difference between age and mindfulness
- H6: There exists a significant difference between age and self regulation

## 2. METHOD

### 2.1. Research design

This is a quantitative study on the variables mindfulness and self regulation. Mindfulness is treated as an independent variable and has no dimensions under it where as self regulation is treated as dependent variable and has 7 dimensions under it, which are as follows: receiving, evaluating, triggering, searching, planning, implementing and assessing. This study is of non experimental correlational research design. The data is analysed using the measures of central tendency, correlation and t-test.

### 2.2. Sample

The present study is conducted on 120 intermediate students, 30 girls and 30 boys having 5-6 hours of physical exercise or activity per week from the CBSE board and 30 boys and 30 girls having less than 3 hours of physical exercise or activity per week from the state board from the cities of Hyderabad and Secunderabad. To get the sample, the researcher used Purposive sampling, snowball sampling and convenience sampling techniques. The sample size has been determined by the institution as the research is conducted at an undergraduate level.

### 2.3. Inclusion and Exclusion Criteria

#### 2.3.1. Inclusion

- Intermediate students belonging to the state board with less than 3 hours of physical activity (sports) per week were included.
- Students belonging to the CBSE board with about 5-6 hours of physical activity (sports) per week were included.
- Students within the cities of Hyderabad and Secunderabad were included.

#### 2.3.2. Exclusion

- Students belonging to boards of education other than CBSE and state were excluded.
- Students attending counselling were excluded.
- Students under medication for their mental health were excluded.

### 2.4. Instruments

- Freiburg Mindfulness Inventory: Researchers Walach, Buchheld, Büttenmüller, Kleinknecht, and Schmidt created the Freiburg Mindfulness Inventory in 2006. The validity of this scale was confirmed through its moderate to strong correlations with measures of self-awareness and self-knowledge. The FMI is a useful, valid and reliable questionnaire for measuring mindfulness. It is most suitable in generalised contexts, where knowledge of the Buddhist background of mindfulness cannot be expected. It has 14 items which cover all aspects of mindfulness. It is a four pointer rating scale. There are no sub scales.
- Self regulation Questionnaire: The Self-Regulation Questionnaire (SRQ; (Brown, Miller, & Lawendowski, 1999) was developed to assess the self-regulatory processes through self-report. Reliability of the SRQ appears to be excellent. Test-retest reliability for the total SRQ score was high ( $r = .94$ ,  $p < .0001$ ). Internal consistency of the scale was also quite high ( $\alpha = .91$ ), consistent with the idea that its items contain much redundancy, so that reliable shorter forms could be developed. The SRQ also has shown strong convergent validity with concomitant measures. It has 63 items. It is a five pointer rating scale. There are seven sub scales included in it: receiving, evaluating, triggering, searching, planning, implementing, assessing.

### 2.5. Procedure

The researcher used questionnaire method to collect data. The researcher approached different participants who are intermediate students. Respondents were informed that participation was voluntary and that the information provided

by them in the questionnaire will be confidential. The participants were requested to answer the questions with complete honesty and were supposed to be as reliable as possible. They were also informed that there was no definite time limit to finish the question.

## 2.6. Data analysis

The measures of Central tendency and Standard deviation were used to analyse the descriptive data. Pearson's Correlation test and Independent Sample t tests have been applied wherever needed.

## 3. RESULTS

**Table 1(a). Showing the Mean, Standard Deviation and t Values based on Ages 15 and 16 years of the Sample.**

	15	16	
	Mean (SD)	Mean (SD)	t
M	38.22 (4.90)	38.01 (4.68)	0.22
R	30.65 (5.25)	30.3 (5.16)	0.34
E	30.34 (3.91)	29.9 (6.62)	0.39
T	30.34 (3.56)	30.38 (3.71)	0.05
S	33.5 (4.51)	33.46 (4.76)	0.03
P	29.43 (4.54)	28.31 (5.17)	1.14
I	28.09 (4.89)	28.58 (5.43)	0.47
A	30.27 (4.22)	30.7 (4.26)	0.5

**M: Mindfulness; R: Receiving; E: Evaluating; T: Triggering; S: Searching; P: Planning; I: Implementing; A: Assessing**

Table 1(a) shows no significant difference in the levels of Mindfulness and and the dimensions of Self Regulation (Receiving, Evaluating, Triggering, Searching, Planning, Implementing and Assessing) between the ages 15 and 16 years in the total sample (male and female).

**Table 1(b). Showing the Mean, Standard Deviation and t Values based on Ages 16 and 17 years of the Sample.**

	16	17	
	Mean (SD)	Mean (SD)	t
M	38.01 (4.68)	38.81 (5.57)	0.58
R	30.3 (5.16)	31.5 (5.98)	0.79
E	29.9 (6.62)	28.31 (5.26)	0.88
T	30.38 (3.71)	31.56 (4.06)	1.1
S	33.46 (4.76)	34.12 (3.34)	0.51
P	28.31 (5.17)	27.93 (6.51)	0.24
I	28.58 (5.43)	30.25 (5.68)	1.08
A	30.7 (4.26)	31.31 (4.39)	0.5

**M: Mindfulness; R: Receiving; E: Evaluating; T: Triggering; S: Searching; P: Planning; I: Implementing; A: Assessing**

Table 1(b) shows no significant difference in the levels of Mindfulness and and the dimensions of Self Regulation (Receiving, Evaluating, Triggering, Searching, Planning, Implementing and Assessing) between the ages 16 and 17 years in the total sample (male and female).

**Table 1(c). Showing the Mean, Standard Deviation and t Values based on Ages 15 and 17 years of the Sample.**

	15	17	
	Mean (SD)	Mean (SD)	t
M	38.22 (4.90)	38.81 (5.57)	0.39
R	30.65 (5.25)	31.5 (5.98)	0.52
E	30.34 (3.91)	28.31 (5.26)	1.61
T	30.34 (3.56)	31.56 (4.06)	1.13
S	33.5 (4.51)	34.12 (3.34)	0.5
P	29.43 (4.54)	27.93 (6.51)	0.99
I	28.09 (4.89)	30.25 (5.68)	1.44
A	30.27 (4.22)	31.31 (4.39)	0.83

**M: Mindfulness; R: Receiving; E: Evaluating; T: Triggering; S: Searching; P: Planning; I: Implementing; A: Assessing**

Table 1(c) shows no significant difference in the levels of Mindfulness and the dimensions of Self Regulation (Receiving, Evaluating, Triggering, Searching, Planning, Implementing and Assessing) between the ages 15 and 17 years in the total sample (male and female).

**Table 2 showing Mean, Standard deviation and t values based on gender for the sample.**

	Male	Female	t
	Mean (SD)	Mean (SD)	
M	37.93 4.5	38.46 5.20	0.6
R	30.48 5.30	30.7 5.29	0.9
E	30.13 4.28	29.56 6.65	0.49
T	30.11 3.71	30.93 3.66	1.21
S	33.61 4.02	33.51 4.91	0.12
P	28.6 5.03	28.75 5.29	0.15
I	29 4.66	28.25 5.84	0.77
A	31.06 4.16	30.18 4.31	1.14

**M: Mindfulness; R: Receiving; E: Evaluating; T: Triggering; S: Searching; P: Planning; I: Implementing; A: Assessing**

Table 2 shows no significant difference in the levels of Mindfulness and the dimensions of Self Regulation (Receiving, Evaluating, Triggering, Searching, Planning, Implementing and Assessing) between the genders Male and Female in the total sample (15 - 17 years).

**Table 3: Showing correlation between Mindfulness and the dimensions of self regulation (Receiving, Evaluating, Triggering, Searching, Planning, Implementing and Assessing) in the sample.**

	M
R	0.40**
E	-0.11
T	0.23*
S	0.32**
P	0.30**
I	0.31*
A	0.38**

**M: Mindfulness; R: Receiving; E: Evaluating; T: Triggering; S: Searching; P: Planning; I: Implementing; A: Assessing**

**Note: \*p < 0.05**

**\*\*p < 0.01**

Table 3 shows a significant positive correlation between Mindfulness and Receiving in the sample. There is no significant positive correlation between Mindfulness and Evaluation. There is a significant positive correlation between Mindfulness and Triggering. There is a significant positive correlation between Mindfulness and Searching. There is a significant positive correlation between Mindfulness and Planning. There is a significant positive correlation between Mindfulness and Implementing. There is a significant positive correlation between Mindfulness and Assessing in the sample.

#### 4. DISCUSSION

The present study has been done to analyse the relationship between mindfulness and self regulation. The study also attempts to understand if there is an impact of independent variables like age and gender on mindfulness and self regulation. The hypothesis of this study was that there exists a relationship between mindfulness and self regulation .

In the present study, a positive correlation was found between mindfulness and self regulation. thus, it can be interpreted that if an individual is mindful, he is bound to be self regulated. Therefore hypothesis H1 is accepted.

Another hypothesis of the present study is to about the difference in the levels of mindfulness with respect to the number of hours of outdoor sports played. An independent sample t test was done to find out the results. The present study shows no significance in levels of mindfulness and the number of hours of sports played by an individual. Therefore hypothesis H2 is rejected.

Other hypothesis is that mindfulness and self regulation are dependent on age and gender of an individual. Independent sample t tests were conducted to get the results. The results of the present study show that there is no significant difference in the levels of mindfulness and self regulation with respect to age and gender of an individual. Therefore hypotheses H3, H4, H5 and H6 are rejected.

#### 4.1. Limitations

A limitation of this study was the small sample size. The results of this study cannot be applied to the whole population due to the dynamic nature of the participants and the very nature of each individual. There is also a limitation of inability to generalise the results due to geographical barriers.

#### 4.2. Application value

The results of this study will help understand the Importance of being mindful as it helps in being self regulated. As it is important to win oneself before winning the world, being mindful makes one understand themselves better.

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